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THE MADURA COLLEGE (AUTONOMOUS)

(Affiliated to Madurai Kamaraj University, Reaccredited (3rd cycle) with "A" Grade by NAAC)

TPK Road, Madurai – 625 011, Tamil Nadu

www.maduracollege.edu.in

ACADEMIC COUNCIL

26.08.2020



ESTD : 1889

Learning Shines with Righteousness

BOOK 1 of 2
(Corrected Copy)

(Syllabi Pages: 1-429)



THE MADURA COLLEGE (AUTONOMOUS)

(Affiliated to Madurai Kamaraj University, Reaccredited (3rd Cycle) with "A" Grade by NAAC)

Ordinary Meeting of the Academic Council

Venue : Online at Google Meet



Date : 26.08.2020

Time : 10.00 a.m.

Members are requested to bring with them this copy as well as the copy of the appendices.

Dr.R.Eswaran
Member Secretary

Dr.J.Suresh
Principal & Chairman



THE MADURA COLLEGE (AUTONOMOUS)
(Affiliated to Madurai Kamaraj University, Reaccredited (3rd Cycle) with "A" Grade by NAAC)

ACADEMIC COUNCIL

Date: 14.08.2020

NOTICE

An ordinary online meeting of the Academic Council will be held on 26.08.2020 (Wednesday) from 10.00a.m. through Google Meet. Resolutions from the Board of Studies and Private resolutions may be submitted to the Member Secretary, Academic Council (eswaran@maduracollege.edu.in) on or before 17th August 2020. Last date for the withdrawal of resolution will be 19th August 2020 upto 3.30 pm.

The agenda and resolutions to be discussed will be made available to the members sufficiently in advance.

Dr.R.Eswaran
Member Secretary

Dr.J.Suresh
Principal & Chairman



THE MADURA COLLEGE (AUTONOMOUS)
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NAAC)

ACADEMIC COUNCIL

MEMBERS IN THE ACADEMIC COUNCIL

Dr.J.Suresh

The Principal & Chairman

Dr.R.Eswaran

Member Secretary

EXTERNAL MEMBERS

Er.N.S.Krishnan,

President,

Madura College Board,
Madurai.

C.A.S.Natanagopal,

Secretary,

Madura College Board,
Madurai.

Sri.N.Anand Srinivasan,

Treasurer,

Madura College Board,
Madurai.

Dr.V.Chinniah,

Professor & Head, Department of Management Studies,

School of Business studies,

Madurai Kamaraj University,

Madurai -625 021.

Dr.R.Sudha,

Professor & Head, Department of French,

School of English and Foreign Languages,

Madurai Kamaraj University,

Madurai -625 021.

Dr.H.Shakila,

Professor & Head, Department of Molecular Microbiology,
School of Biotechnology,
Madurai Kamaraj University,
Madurai -625 021.

Dr.S.Vaidhya Subramanian,

Dean, (Member representing Education)
SASTRA University,
Tirumalai Samudiram,
Thanjavur – 613 401.

Sri.S.Sankaran,

(Member representing Profession)
Director – Madura College Board,
Madurai.

Sri.R.Sridharan,

(Member representing Profession)
Director – Madura College Board,
Madurai.

Sri.K.K.Raman,

(Member representing Industry)
President,
Sundaram Industries (TVS Rubber)
Madurai.

INTERNAL MEMBERS

Boards of Studies Chairmen	-	All Heads/Coordinators of the Department
Members of Academic Council	-	All Permanent Faculty Members
Special invitees	-	Nominated by Chairman
(Teachers on probation/Senior Faculties of SF stream)		



**THE MADURA COLLEGE (AUTONOMOUS)
(Reaccredited with “A” Grade by NAAC)**

ACADEMIC COUNCIL

AGENDA FOR THE MEETING ON 26.08.2020

1. Prayer
2. Welcome Address : The Chairman, Academic Council
3. Confirmation of the Minutes of the previous Academic Council Meeting held on 10.07.2019
4. Resolutions of Boards of Studies from various Departments
5. Any other subjects brought forward by the Chairman
6. Observation & Remarks by the External Members
7. Vote of Thanks : Member Secretary
8. National Anthem

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I. CONFORMATION OF MINUTES OF THE PREVIOUS ACADEMIC COUNCIL MEETING HELD ON 10.07.2019



THE MADURA COLLEGE

(Autonomous, Affiliated to Madurai Kamaraj University, Re-accredited (3rd Cycle) with 'A' Grade by NAAC)
MADUARI -625 011

MEETING OF THE ACADEMIC COUNCIL

Date: 10.07.2019 (Wednesday)

Venue: Seminar Hall

Time: 02.00 p.m.

MINUTES OF THE ACADEMIC COUNCIL MEETING

A meeting of the Academic Council was held in the Seminar Hall on Wednesday, 10th July 2019.

Members Present

- 1) Dr. J. Suresh (Chairman, Academic Council)
- 2) Dr. R. Eswaran (Member Secretary, Academic Council)
- 3) Sri. S. Natanagopal (Secretary, MCB)
- 4) Dr. H. Shakila (University Nominee)
- 5) Dr. K.M. Rajasekaran (CoE)
- 6) Dr. K. Muthuvel
- 37) Dr. I. Padmavathi
- 7) Dr. S. Dhanasamy
- 38) Dr. S. Usha
- 8) Dr. A. Atheeswari
- 39) Dr. M. Prema Rani
- 9) Dr. G. Karunakaran
- 40) Prof. V. Meenakshi Sundaram
- 10) Dr. N. Rathinakumar
- 41) Prof. T. Vivekanandan
- 11) Dr. R. Subramony
- 42) Prof. S. Sivaramkrishnan
- 12) Dr. Sheela P. Karthick
- 43) Dr. M. Kavitha
- 13) Dr. R. Raja
- 44) Prof. G. Gowri
- 14) Dr. G. Sivasubramanian
- 45) Dr. R. Vishnu Priya
- 15) Dr. A. Chandra Bose
- 46) Dr. J. Sivasubramanian
- 16) Dr. S. Sudha
- 47) Dr. P.S. Harikrishnan
- 17) Dr. D. Bhuvanewari
- 48) Dr. P. Gajendran
- 18) Dr. A. Vignesh Kumar
- 49) Dr. M. Malarvizhi
- 19) Prof. S. Venkatesh
- 50) Dr. S.V. Karthikeyan
- 20) Prof. S. Murali
- 51) Prof. S. Vidhyasankar
- 21) Dr. S. Theenathayalan
- 52) Dr. R. Ramachandran
- 22) Dr. P. Kannan
- 53) Prof. S. Selvakumar
- 23) Dr. R. Gopi
- 54) Dr. P. Prasanna
- 24) Dr. V. Sriman Narayanan
- 55) Dr. M. Boominathan
- 25) Dr. S. Karthikeyan
- 56) Dr. M. HasmathFarzana
- 26) Dr. S. Meenakshi
- 57) Prof. S. Chella Pandian
- 27) Dr. A. Mayilmurugan
- 58) Dr. P. Krishnan
- 28) Dr. S. Selvakumar
- 59) Dr. P. Kannan
- 29) Dr. K. HemaMalini
- 60) Dr. S. Karuppusamy
- 30) Dr. Y. Natarajan
- 61) Dr. S. Gnaana Saraswathi
- 31) Dr. C. Thangapandi
- 62) Prof. V. Meenakshi Sundaram
- 32) Dr. K.M. Dharmalingam
- 63) Dr. S. Dinakaran
- 33) Dr. G. Marimuthu
- 64) Dr. L.D. Devasree
- 34) Dr. V. Ananthaswamy
- 65) Dr. B. Latha
- 35) Dr. I. Sahulhamid
- 66) Prof. R. Umasankari
- 36) Dr. U. Karthik Raja
- 67) Prof. C. Hema

1. The meeting was called to order by the Principal-cum-Chairman of the Academic council, Dr. J. Suresh, and the meeting began with the college prayer. The Chairman welcomed Sri. S. Natanagopal, Secretary, Madura College Board and Dr. H. Shakila, University Nominee and all other members of the Academic Council and visitors to the first meeting of Academic council for the academic year 2018-19.
2. The Minutes of the previous Academic Council meeting, held on 31.10.2018, was confirmed and passed.
3. The chairman of the Academic Council brought an Ordinance 1(1) of 2019-20 regarding the conversion of M.A.(Philosophy) and M.A.(Sociology) into M.Com. and M.Sc.(Statistics) respectively under Aided stream from the Academic year 2019-20. He also informed that the courses were approved by the Secretary, Higher Education, Tamil Nadu and The Registrar, Madurai Kamaraj University (MKU).
4. Resolutions **1.1. and 1.2** were moved by **Dr. S. Theenathayalan**, Chairman, Board of Studies in Economics and seconded by **Dr. P. Kannan**. The motion was then thrown open for discussion.

Sri. S. Natanagopal, Secretary, MCB, initiated the discussion and queried whether the paper introduced was new or replacing the previously passed paper. Dr. S. Theenathayalan answered that as a replacement. Further, he explained about the introduction of certificate course on 'Teaching and Research Aptitude'. He elucidated the need and scope of the course. In addition, he proposed that the course would be extended to all students depending upon the demand. He also added that external experts would be invited for teaching a few specialized topics. Then, the motion was put to vote and CARRIED.

5. Resolutions **2.1. to 2.3** were moved by **Dr. A. Mayilmurugan**, Chairman, Board of Studies in Commerce and seconded by **Dr. S. Selvakumar**. The motion was then thrown open for discussion.

Dr. S. Theenathayalan enquired about the fate of M.Com Course in SF stream. Dr. A. Mayilmurugan replied that the admission of first year students to M.Com under SF stream was suspended and might be continued based on demand. Dr. K. Muthuvel suggested to include the syllabus of the M.Com (SF) passed during the Academic councils held on 16.12.2016 and 16.04.2018 as a booklet. Chairman assured that the changes could be made in the corrected copy. Dr. A. Mayilmurugan placed an appeal to the council to rename the department as Post-graduate department of Commerce as the same was decided in the BoS meeting which was unanimously accepted.

Lots of deliberations happened on the resolution about the MoU with other colleges for staff exchange programs. Dr. S. Theenathayalan explained that taking students to other colleges under exchange programs required permission from the Joint Directorate of Collegiate Education. Dr. H. Shakila requested to formulate the standard procedure for the selection of staff under Faculty exchange programme. She also suggested to refer the guidelines followed by the other institutions such as MKU.

Dr. S. Theenathayalan queried the eligibility criteria for the students to get admitted in the M.Com aided course since our own college offers various specialized programs under B.Com such as Commerce, Banking and Insurance, Professional Accounting, Marketing etc. Chairman explained that the guidelines from MKU had been followed and agreed to provide the eligible criteria in the prospectus. Dr. H. Shakila endorsed the explanation. Then, the motion was put to vote and CARRIED.

6. Resolutions **3.1** was moved by **Dr. C. Thangapandi**, Chairman, Board of Studies in Statistics and seconded by **Dr. K.M. Dharmalingam**. The motion was then thrown open for discussion.

Dr. S. Theenathayalan asked about the qualification of the staff who would handle paper on Economics. Chairman answered that Staff for the Statistics and Mathematics department would soon be recruited and they would handle the papers. Dr. S. Theenathayalan asked about the modalities followed in syllabus framing and Board of Studies (BoS) meeting. Chairman affirmed

that a separate, exclusive BoS was conducted for Statistics and the invitees for the BoS were statisticians from the reputed educational institutions.

Dr. H. Shakila suggested to include Biostatistics as one of the core papers in the curriculum. Chairman agreed to take up the suggestion in the next BoS of Statistics. Then, the motion was put to vote and CARRIED.

7. Resolutions 4.1. to 4.4 were moved by **Dr. P. Krishnan**, Associate Professor of Botany and seconded by **Dr. V. Sriman Narayanan**, Assistant Professor of Economics & Deputy Controller of Examinations (DCoE). The motion was then thrown open for discussion. All members assented passing the resolutions and the motion was CARRIED.

8. The first addendum resolution was moved by **Prof. S. Murali**, Associate Professor & Head, Department of Hindi and seconded by **Dr. S. Dinakaran**, Associate Professor and Head, Department of Zoology. The motion was then thrown open for discussion. Then, the motion was put to vote and CARRIED.

9. The second addendum resolution was moved by **Dr. P.S. Harikrishnan**, Associate Professor of Chemistry and seconded by **Dr. P. Gajendran**, Assistant Professor of Chemistry. The motion was thrown open for discussion.

Dr. S. Theenathayalan queried whether the changes effected were based on the TANSCH norms. Dr. S. Sivaramkrishnan, NAAC Executive Coordinator, answered that the fitment table was prepared during 2009 based on the TANSCH norms with a few changes to suit our college environment.

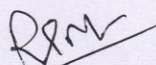
Then, the motion was put to vote and CARRIED.

10. The chairman requested the Secretary, Madura College Board and University nominee, to give their observations and remarks.

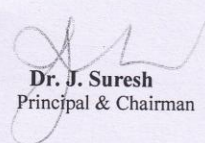
Dr. H. Shakila in her observations appreciated the good preparation of resolutions and proper communication and also cherished the deliberations by the members.

11. The Member Secretary, Dr. R. Eswaran proposed vote of Thanks.

12. The Chairman adjourned the Academic Council after singing of the National Anthem by all.



Dr. R. Eswaran
Member Secretary



Dr. J. Suresh
Principal & Chairman

II. BUSINESS BROUGHT FORWARD BY THE CHAIRMAN

Ordinance 1 (1) of 2020-21

Resolved that the following ordinance 1(1) of 2020-21 of the Ordinances of the chairman of the Academic council be approved and be recommended for consideration of the Governing body of the college.

To introduce an additional section in B.Com (General) in the self-financing stream from the academic year 2020-21 onwards subject to affiliation by the Madurai Kamaraj University.

III. RESOLUTIONS BROUGHT FORWARD BY THE HEADS OF THE DEPARTMENT

1) FROM THE BOARD OF STUDIES OF TAMIL DEPARTMENT

Dr.S.Dhanasamy, Chairman, Board of Studies in Tamil, shall move and **Dr.A.Atheeswari** shall second the following resolutions passed in the Board of Studies meeting held on 18.03.2020.

- 1.1. Resolved to introduce the revised syllabi for Part-I Tamil (I to IV semesters) with Choice Based Credit System (CBCS) and Outcome Based Education (OBE) pattern, evaluation components and question paper pattern for those students who join B.Sc. and B.A., (Regular and Self) from the academic year 2020-2021 (**pp 1-15**).
- 1.2. Resolved to introduce the syllabi for Part-I Tamil (I & II semesters) with CBCS and OBE pattern, evaluation components and question paper pattern for first year students of Commerce who join from the academic year 2020-2021 (**pp 2-4, 16-25**).
- 1.3. Resolved to introduce the revised syllabi with CBCS and OBE pattern for I year students of B.A. Tamil who join from the academic year 2020-2021 onwards (**pp 27-49**).
- 1.4. Resolved to introduce a new certificate course titled “**பேச்சுக்கலை**” for all the UG and PG students (**P 26**).

2) FROM THE BOARD OF STUDIES OF HINDI DEPARTMENT

Prof.S.Murali, Chairman, Board of Studies in Hindi, shall move and **Dr.S.Dinakaran** shall second the following resolutions passed in the Board of Studies meeting held on 18.03.2020.

- 2.1. Resolved to introduce the revised syllabi for Part-I Hindi (I to IV semesters) with CBCS and OBE pattern, evaluation components and question paper pattern for all the students who join B.A./B.Sc. from the academic year 2020-21 onwards under both Regular and Self Finance Stream (**pp 50-57**).
- 2.2. Resolved to introduce the revised syllabi for Part-I Hindi (I & II semesters) with CBCS and OBE pattern, evaluation components and question paper pattern for the students who join B.Com (Aided & SF), B.Com (Professional Accounting-SF), B.Com (Banking & Insurance-SF) & B.Com (Capital Markets-SF) from the academic year 2020-21 onwards (**pp 51-52, 58-61**).

3) FROM THE BOARD OF STUDIES OF SANSKRIT DEPARTMENT

Prof.P.Manikandan, Chairman, Board of Studies in Sanskrit, shall move and **Prof.S.Murali** shall second the following resolutions passed in the Board of Studies meeting held on 18.03.2020.

- 3.1. Resolved to introduce the revised syllabi for Part-I Sanskrit (I to IV semesters) with CBCS and OBE pattern, evaluation components and question paper pattern for the students who join B.A. /B.Sc. from the academic year 2020-21 onwards under both Regular and Self Finance Stream (**pp 62-77**).
- 3.2. Resolved to introduce the revised syllabi for Part-I Sanskrit (I & II semesters) with CBCS and OBE pattern, evaluation components and question paper pattern for the students who join B.Com (Aided & SF), B.Com (Professional Accounting-SF), B.Com (Banking & Insurance-SF) & B.Com (Capital Markets-SF) from the academic year 2020-21 onwards (**pp 62-64, 78-89**).

4) FROM THE BOARD OF STUDIES OF ENGLISH DEPARTMENT

Dr.R.Subramony, Chairman, Board of Studies in English, shall move and **Dr.Sheela P.Karthick** shall second the following resolutions passed in the Board of Studies meeting held on 18.03.2020.

- 4.1. Resolved to introduce revised syllabi for B.A English under CBCS pattern with OBE Model from the academic year 2020-2021 onwards (**pp 106-140**).
- 4.2. To introduce part II English for Semester I of all the U.G programmes (B.A., B.Sc. & B.Com.) as per letter received from the Higher Education Secretary (Ref: Higher Education 3282/k2/2020) dated. 04/03/2020. In the event of any delay in receiving the syllabi as proposed in the letter, the department will incorporate the syllabi based on CLIL as prescribed by TANSCHÉ (**pp 92, 96-100**).
- 4.3. Resolved to incorporate part-II English syllabi for Semesters II, III& IV of all the U.G programmes, as prescribed by TANSCHÉ based on CLIL, from the academic year 2020-2021 onwards (**pp 91-95, 101-105**).
- 4.4. Resolved to restructure the syllabus for certificate course on “Spoken English” for the students to be admitted from the academic year 2020-2021 onwards.
- 4.5. Resolved to include the texts as envisaged by students in their feedback.

5) FROM THE BOARD OF STUDIES OF ECONOMICS DEPARTMENT

Dr.S.Theenathayalan, Chairman, Board of Studies in Economics, shall move and **Dr.P.Kannan** shall second the following resolutions passed in the Board of Studies meeting held on 18.03.2020.

- 5.1. Resolved to introduce new syllabi for I BA Economics with OBE model under CBCS pattern from the academic year 2020-21 onwards (**pp 141-175**).
- 5.2. Resolved to restructure the syllabi for III BA Economics for the students who have been admitted from the academic year 2018-19 (**pp 176-201**).
- 5.3. Resolved to introduce common syllabi for Business Economics and International Economics courses for the I year B.Com. Aided and I B.Com. Self-financing (General / Professional Accounting / Banking & Insurance / Capital Markets) for the students to be admitted from the academic year 2020-2021 onwards (**pp 202-213**).

5.4. Resolved to introduce papers titled Economic Thinkers and Retail Marketing based on feedback of the parents & students for the students who have been admitted during the academic year 2018-2019 (pp 144, 189, 196-197).

5.5. Resolved to follow the pattern of CIA and Summative Examination as prescribed by the academic council for UG programme.

6) FROM THE BOARD OF STUDIES OF COMMERCE DEPARTMENT

Dr.A.Mayilmurugan, Chairman, Board of Studies in Commerce, shall move and **Dr.S.Selvakumar** shall second the following resolutions passed in the Board of studies meeting held on 18-03-2020.

6.1. Resolved to approve the Structure and syllabi for III year B.Com (Capital Markets) under SF stream for fifth and sixth semester with internship training for the students who have joined from the academic year 2018-19 onwards (pp 214-230).

6.2. Resolved to approve common syllabi for First year (I & II semester) for all the programmes of B.Com. under Aided and Self Financing Stream for the students who join from the academic year 2020-21 onwards (pp 231-248).

6.3. Resolved to approve a revised OBE curriculum for B.Com. programme structure for each stream and syllabi for the first year B.Com (Aided & SF), B.Com (Professional Accounting-SF), B.Com (Banking & Insurance-SF) & B.Com (Capital Markets-SF) for first & second semesters for the students who join from the academic year 2020-21 onwards (pp 249-305).

6.4. Resolved to approve the syllabus of a Certificate course on “Financial Markets: A Beginners’ Module” during the second semester for the students of B.Com (Capital Markets) as add-on course with extra 3 credits for the students who join from the academic year 2020-21 onwards (pp 311-313).

6.5. Resolved to place the suggestions given in the PTA meeting and students’ feedback session for discussions in BoS. Based on the discussion in the BoS recent developments in commerce and business arenas were introduced in the curriculum viz., ICT related course, service marketing, Accounting Package with GST and Industrial training & Industrial visit for practical exposure (pp 223, 228-229, 271-277).

6.6. Resolved to ratify the certificate course ‘Goods and Services Tax & Accounting Package’ offered and conducted for the students for the academic year 2019-20 (pp 306-308).

6.7. Resolved to approve the syllabi for the following two certificate courses with OBE Model from the academic year 2020-21 onwards (pp 306-310).

Goods and Services Tax & Accounting Package
Entrepreneurial Development & Start-ups

7) FROM THE BOARD OF STUDIES OF MATHEMATICS DEPARTMENT

Dr.S.Muthukumar, Chairman, Board of Studies in Mathematics, shall move and **Dr.C.Thangapandi** shall second the following resolutions passed in the Board of studies meeting held on 18.03.2020.

7.1. Resolved to approve the syllabi along with question paper pattern for Internal and External examinations for I B.Sc., Mathematics from the academic year 2020 onwards (pp 314-354).

7.2. Resolved to approve the ratification of the syllabi of the following certificate courses being conducted by Department of Mathematics for all UG and PG students of Madura College from December 2019 onwards (pp 355-357).

1. Certificate course on Visual Basic Programming
2. Certificate course on Decision Making and Investment Analysis.

7.3. Resolved to approve the syllabi for the certificate course titled “Certificate course on Latex” for the PG students of the Madura College from July 2020 onwards (pp 355, 358).

8) FROM THE BOARD OF STUDIES OF STATISTICS DEPARTMENT

Dr.S.Muthukumar, Chairman, Board of Studies in Statistics, shall move and **Dr.C.Thangapandi** shall second the following resolutions passed in the Board of studies meeting held on 18.03.2020.

8.1. Resolved to approve the syllabi along with question paper pattern for internal and external examinations for I B.Sc., Statistics from the academic year 2020-2021 onwards (pp 359-400).

8.2. Resolved to approve the syllabus for II M.Sc., Statistics major students who joined the course from 2020-2021 onwards in aided stream (pp 401-423).

8.3. Resolved to ratify the syllabi of the following certificate course being conducted by Statistics for PG students of Madura College from August 2019 onwards (pp 424, 426).

1. Certificate course on Statistical analysis using R Programming.

8.4. Resolved to introduce the syllabi for certificate courses titled

1. Statistical Packages for Social Sciences.
2. Statistical Data Analysis using Excel.
3. Quantitative Aptitude for Competitive Examinations
for the PG students of Madura College from 2020-2021 onwards (pp 424-425, 427-429).

9) FROM THE BOARD OF STUDIES OF PHYSICS DEPARTMENT

Dr.R.Saravanan, Chairman, Board of Studies in Physics, shall move and **Dr.M.Prema Rani** shall second the following resolutions passed in the Board of studies meeting held on 18.03.2020.

9.1. Resolved to introduce the curriculum structure based on outcome based education for B.Sc., Physics students who join the course from the academic year 2020-2021 onwards both in aided and in self financed stream (pp 430-438).

9.2. Resolved to introduce the revised syllabi based on outcome based education along with the blue prints for question papers for I year B.Sc., Physics students who join the course from academic year 2020-2021 onwards both in aided and in self finance stream (pp 440-460).

9.3. Resolved to introduce the ancillary syllabi based on outcome based education along with the blue prints for question papers for B.Sc., Mathematics and B.Sc., Chemistry students who join the course from academic year 2020-2021 onwards both in aided and in self financed stream (pp 439, 461-476).

- 9.4. Resolved to ratify the syllabi for the value added courses (i) Advanced techniques for smart phone service and troubleshooting and (ii) Energy Harvesting, offered from the academic year 2019-2020 (pp 477-479).

10) FROM THE BOARD OF STUDIES OF CHEMISTRY DEPARTMENT

Dr.A.Xavier, Chairman, Board of Studies in Chemistry, shall move and **Dr.P.S. Harikrishnan** shall second the following resolutions passed in the Board of studies meeting held on 18.03.2020.

- 10.1. Resolved to implement the syllabi for B.Sc. Chemistry 1st year, evaluation components and question paper pattern for those who join B.Sc. Chemistry from the academic year 2020-21 (pp 480-487, 489-510).
- 10.2. Resolved to implement the syllabi for Ancillary Chemistry, evaluation components and Question paper pattern for those who join B.Sc. Mathematics, Physics, Botany and Zoology from the academic year 2020-21. The students of Botany and Zoology will study the ancillary Chemistry in their first year and the students of Mathematics and Physics will study the ancillary Chemistry in their second year (pp 488, 511-522).
- 10.3. Resolved to implement the syllabi for Ancillary Chemistry, evaluation components and question paper pattern for those who join B.Sc. Maths, Physics, Microbiology and Biotechnology in SF stream from the academic year 2020-2021 onwards. The students of Biotechnology and Microbiology will study the Ancillary Chemistry in their first year and the students of Mathematics and Physics will study the Ancillary Chemistry in their second year (pp 488, 511-522).
- 10.4. Resolved to implement a Certificate course in “purification and characterization of compounds” from the academic year 2020-21 (P 523).

11) FROM THE BOARD OF STUDIES OF BOTANY DEPARTMENT

Prof.S.Chellapandian, Chairman, Board of Studies in Botany, shall move and **Dr.P.Kannan** shall second the following resolutions passed in the Board of studies meeting held on 18.03.2020.

- 11.1. Resolved to introduce course structure and the revised syllabi adopting Outcome based education model and question paper pattern for B.Sc. Botany Students who join the course from the academic year 2020-2021 onwards (pp 524-551, 565).
- 11.2. Resolved to introduce the revised syllabi and question paper pattern for Ancillary Botany students who join B.Sc.(Zoology) from the academic year 2020-2021 onwards (pp 526, 552-565).

12) FROM THE BOARD OF STUDIES OF ZOOLOGY DEPARTMENT

Dr.S.Dinakaran, Chairman, Board of Studies in Zoology, shall move and **Dr.L.D.Devasree** shall second the following resolutions passed in the Board of studies meeting held on 18.03.2020.

- 12.1. Resolved to implement the revised overall course structure for B.Sc. Zoology under CBCS with OBE pattern for the students who join the course from the academic year 2020-2021 onwards (pp 566-572).
- 12.2. Resolved to introduce the revised syllabi with CBCS and OBE pattern, evaluation components and question paper pattern for I year students of B.Sc. Zoology who join from the academic year 2020-2021 onwards (pp 574-595, 606-609).

12.3. Resolved to introduce the revised syllabi with CBCS and OBE pattern, evaluation components and question paper pattern in ancillary Zoology for I B.Sc. Chemistry students who join from the academic year 2020-2021 onwards (pp 573, 596-605, 610-613).

13) FROM THE BOARD OF STUDIES OF COMPUTER SCIENCE DEPARTMENT

Er.J.Rajendran, Chairman, Board of Studies in Computer Science, shall move and **Prof.R.Umasankari** shall second the following resolutions passed in the Board of studies meeting held on 18.03.2020.

13.1. Resolved to implement the revised syllabus with CBCS and OBE model for First Year B.Sc. Computer Science students of both Aided and Self-finance stream for those who will join from the academic year 2020-21 onwards (pp 614-643).

13.2. Resolved to introduce a certificate course “Desktop publishing (DTP- Adobe Photoshop & flash)” from the academic year 2020-21 onwards during even semester (pp 644-645).

14) FROM THE BOARD OF STUDIES OF INFORMATION TECHNOLOGY DEPARTMENT

Dr.K.Rajasaravanakumar, Chairman, Board of Studies in Information Technology, shall move and **Dr.N.Paneerselvam** shall second the following resolutions passed in the Board of studies meeting held on 18.03.2020.

14.1. Resolved to implement the revised overall course structure for B.Sc., Information Technology in the Self-financing stream under CBCS with OBE pattern for the students who join the course from the academic year 2020-2021 onwards (pp 646-653).

14.2. Resolved to implement the revised syllabi for B.Sc., Information Technology under CBCS with OBE pattern for the first and second semesters for the students who are joining from the academic year 2020-2021 onwards (pp 654-683).

15) FROM THE BOARD OF STUDIES OF MICROBIOLOGY DEPARTMENT

Dr.N.Paneerselvam, Chairman, Board of Studies in Microbiology, shall move and **Dr.K.Rajasaravanakumar** shall second the following resolutions passed in the Board of studies meeting held on 18.03.2020.

15.1. Resolved to implement the revised overall course structure for B.Sc., Microbiology in the Self-financing stream under CBCS with OBE pattern for 3years for the students who are joining from the academic year 2020-2021 onwards (pp 684-689).

15.2. Resolved to implement the revised syllabi for B.Sc., Microbiology under CBCS with OBE pattern for the first and second semesters for the students who are joining from the academic year 2020-2021 onwards (pp 690-714).

15.3. Resolved to implement revised ancillary papers in Microbiology syllabi under CBCS with OBE pattern for II year B.Sc., Biotechnology students who are joining from the academic year 2020-2021 onwards (pp 689, 715-727).

15.4. Resolved to introduce a certificate course on Mushroom Technology for B.Sc., Microbiology students under the Self-financing stream (pp 689, 728-729).

16) FROM THE BOARD OF STUDIES OF BIOTECHNOLOGY DEPARTMENT

Dr.N.Paneerselvam, Chairman, Board of Studies in Biotechnology, shall move and **Dr.K.Rajasaravanakumar** shall second the following resolutions passed in the Board of studies meeting held on 18.03.2020.

16.1. Resolved to implement the revised overall course structure for B.Sc. Biotechnology in the self-financing stream under CBCS with OBE pattern for three years for the students who are joining from the academic year 2020-2021 onwards (pp 730-733).

16.2. Resolved to implement the revised syllabi for B.Sc. Biotechnology under CBCS with OBE pattern for the first and second semesters for the students who are joining from the academic year 2020-2021 onwards (pp 734-752).

16.3. Resolved to introduce a certificate course on Clinical Laboratory Technology for B.Sc. Biotechnology students under the Self-financing stream (pp 733, 753-754).

17) FROM DEAN (ACDEMIC)

Prof.S.Sivaramakrishnan, Dean (Academic), shall move and **Dr.I. Sahul Hamid** shall second the following resolutions:

17.1. Resolved to approve the panel of experts to be nominated for Board of Studies in all degree programmes for the period of two years with effect from the academic year 2020-21.

17.2. Resolved to award “FIRST CLASS WITH DISTINCTION” as a class in all Undergraduate programmes to students who clear all papers in the first attempt and secure atleast 75% in their Part – III for the students who join from the academic year 2020-21 onwards.

18) FROM THE MEMBER – PRIVATE RESOLUTION

18.1. **Prof.S.Chellapandian** shall introduce and **Dr.S.Dinakaran** shall second the common syllabus for a paper titled, “Environmental science and Gender Awareness” for all UG programs under both the aided and self-financed streams as a mandatory requirement of TANSICHE for all UG students who join from the academic year 2020-21 onwards (pp 761-766).

18.2. **Dr.S.Theenathayalan** shall move and **Dr.A.Mayilmurugan** shall second the common syllabus for a paper titled, “Value education and Professional ethics” as mandated by TANSICHE for all UG students who join from the academic year 2020-21 onwards (pp 755-760).

IV. Any Other Subject



Dr. R. Eswaran
Member Secretary



Dr. J. Suresh
Principal & Chairman

Department of Tamil

Revised Curriculum **(Choice Based Credit system with Outcome Based Education)** **Academic Year 2020-2021 onwards**

மதுரைக் கல்லூரி (தன்னாட்சி) மதுரை - 625 011
தமிழ்த்துறை

PART I Tamil

SEMESTER	STUDY COMPONENTS	SUBJECT CODE	TITLE OF THE PAPER	HOURS	CREDIT
I	Tamil	20U1TLA1	இக்கால இலக்கியம்	6	3
	English			6	3
	Economics			6	3
	Maths			6	3
	Botany			6	3
	Chemistry			6	3
	Physics			6	3
	Zoology			6	3
	Bio technology			6	3
	Microbiology			6	3
	Computer Science			6	3
	Information Technology			6	3
	B Com (General)			20U1TKL1	பொதுத்தமிழ் -1
B Com (Professional Accounting)		3	1		
B Com (Banking & Insurance)		3	1		
B Com (Corporate Markets)		3	1		
II	Tamil	20U2TLA2	இடைக்கால இலக்கியமும் உரைநடையும்	6	3
	English			6	3
	Economics			6	3
	Maths			6	3
	Botany			6	3
	Chemistry			6	3
	Physics			6	3
	Zoology			6	3
	Bio technology-z			6	3
	Microbiology-b			6	3
	Computer Science			6	3
	Information Technology			6	3
	B Com (General)			20U2TKL2	பொதுத்தமிழ் -2
B Com (Professional Accounting)		3	1		
B Com (Banking & Insurance)		3	1		
B Com (Corporate Markets)		3	1		

III	Tamil	20U3TLA3	காப்பிய இலக்கியமும்	6	3
	English		நாவலும்	6	3
	Economics			6	3
	Maths			6	3
	Botany			6	3
	English			6	3
	Chemistry			6	3
	Physics			6	3
	Zoology			6	3
	Bio technology			6	3
	Microbiology			6	3
	Computer Science			6	3
	Information Technology			6	3
	IV		Tamil	20U4TLA4	பண்டைய
English		இலக்கியமும்	6		3
Economics		நாடகமும்	6		3
Maths			6		3
Botany			6		3
Chemistry			6		3
Physics			6		3
Zoology			6		3
Bio technology			6		3
Microbiology			6		3
Computer Science			6		3
Information Technology			6		3

இலக்கு (Vision)

- தமிழ் மொழிப்பாடத் திட்டங்களின் மூலம் மொழித் திறனும் சமுதாய நோக்கமும் தெளிந்த அறிவும் பெற்றவர்களாக மாணவர்களை உருவாக்குவது.
- சுதந்திரம், சமத்துவம், சகோதரத்துவம், நீதி போன்ற விழுமியங்களில் திறன் பெற்றவர்களாக விளங்கச் செய்வது இலக்காக அமைந்துள்ளது.

நோக்கு (Mission)

- தமிழ் மொழியின் வளமை, வரலாற்றை அறிந்து கொள்ளச் செய்தல்.
- மரபு சார்ந்த இலக்கண இலக்கியங்களில் ஆழ்ந்த அறிவினைப் பெறச் செய்தல்.
- நவீன இலக்கியங்களைப் பிற அறிவுத்துறைகளுடன் இணைத்துக் கற்பித்துப் பன்முக ஆற்றலைப் பெருக்குதல்.
- மொழியின் வாயிலாக எழுத்தாற்றல், பேச்சாற்றல் மிகுந்தவர்களாக மாணவர்களை உருவாக்குதல்.

இளநிலை மொழிப் பாடக் கல்வியின் குறிக்கோள்கள்

(Programme Educational Objectives)

இளநிலை மொழிப் பாடத்தைப் படிப்பதால் மாணவர்கள் பெறுவன.

PEO1: தமிழ் மொழியின் தொன்மையினை அறியச் செய்தல்

PEO2: மொழிப் பாடத்திட்டத்தின் மூலம் பண்பாட்டினையும் வாழ்வியல் விழுமியங்களையும் புரிந்துகொள்ளச் செய்தல்.

PEO3: தமிழ் இலக்கியவகைகளைக் காலப் பின்னணியோடு கற்பித்தல்.

PEO4: மொழி ஆய்வுகளை மேற்கொள்ளும் ஆர்வத்தைத் தூண்டுதல்.

PEO5: ஆளுமைத் திறன்களைச் செயல்படுத்த ஊக்குவித்தல்.

PEO6: சமூக உணர்வோடு இணைந்து வாழும் கலையை அறியச் செய்தல்.

இளநிலை மொழிப் பாடத்திட்டத்தின் சிறப்பு விளை பயன்கள்

(Programme Specific Outcomes)

PSO	இளநிலை மொழிப் பாடத்திட்டத்தின் சிறப்பு விளை பயன்கள் (Programme Specific Outcomes)	The Graduate Attributes
PSO1	இலக்கண இலக்கியங்களின் அறிவைப் பெறுகின்றனர்.	Knowledge in core Competency
PSO2	தருக்க ஆற்றல், மானுடச் சிக்கல்களைப் பகுத்தறிகின்றனர்	Problem analysis
PSO3	எழுத்தாற்றல், பேச்சாற்றலை வளர்த்துத் தொடர்பியல் பண்புகளைப் பெறுகின்றனர்	Communication
PSO4	தமிழ் மொழியின் தொன்மைதனைப் புரிந்துகொண்டு அதனைப் பிறமொழிச் சூழலோடு ஒப்பிடுகின்றனர்.	Environment and Sustainability
PSO5	தமிழ் மொழி இலக்கண, இலக்கியங்களின் சிறப்பினைத் தனிநிலையிலும் குழுவாகவும் சமூக ஆற்றலைப் பெறுகின்றனர்.	Individual and Team Work
PSO6	இலக்கியங்களில் உள்ள அற விழுமியக் கருத்துகளை அறிவர்.	Ethics
PSO7	தன்னிறைவுபெற்ற மனிதர்களாகத் தயாராகின்றனர்.	Life long learning

DEPARTMENT OF TAMIL				CLASS: CLASS: I B.A. / B.Sc.				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
I	Part -1	20U1TLA1	இக்கால இலக்கியம்	3	6	25	75	100

குறிக்கோள்

- புதுக்கவிதை, சிறுகதை ஆகியவற்றின் நுட்பங்களைப் பயிற்றுவித்தல்.
- படைப்பின் அழகியல் உணர்வுகளைப் பெருகச் செய்தல்.
- மாபெரும் இலக்கிய ஆளுமைகளை அறிதல்.

அலகு- 1: மரபுக்கவிதை

(15 மணி நேரம்)

- 1.பாரதியார் - அ. நிற்பதுவே நடப்பதுவே...
ஆ செந்தமிழ் நாடெனும் போதினிலே...
இ. வீணையடி நீ எனக்கு...
- 2.பாரதிதாசன் அ. தமிழின்இனிமை
ஆ. பெண்ணுக்குநீதி
இ. தொழிலாளர்விண்ணப்பம்

அலகு- 2 புதுக்கவிதை

(20 மணி நேரம்)

1. வருத்தம் - சுந்தரராமசாமி.
2. சகாராவைத் தாண்டாத ஒட்டகங்கள் - நா. காமராசன்.
3. தேசப்பிதாவிற்கு ஒரு தெருப்பாடகனின் அஞ்சலி - மு. மேத்தா.
4. கதவு - அப்துல் ரகுமான்.
5. இறக்கமுடியாத சிலுவைகள்- வைரமுத்து.
6. தூர் - நா. முத்துக்குமார்.
7. ஒரு கதவும் கொஞ்சம் கள்ளிப்பாலும் - தாமரை.
8. கனவுகள் + கற்பனைகள் = காகிதங்கள் - மீரா.
9. அம்மா - இளம்பிறை.
10. ஹைக்கூ கவிதைகள் - (10)

நாட்டுப்புறப்பாடலும் திரைப்படப்பாடலும்

1. ஆத்தா உன் சேலை.... - ஏகாதேசி.
2. மணப்பாறை மாடுகட்டி மாயவரம்.... - மருதகாசி.

அலகு- 3 சிறுகதைகள்

(20 மணி நேரம்)

தேர்ந்தெடுக்கப்பட்ட சிறுகதைகள் (8) 1. புதுமைப்பித்தன் - காஞ்சனை. 2 கு.ப.ராஜகோபாலன் - நூருன்னிசா. 3. கி.ராஜநாராயணன் - கதவு. 4. அசோகமித்திரன் - புலிக்கலைஞன். 5.சா.கந்தசாமி - தக்கையின் மீது நான்கு கண்கள். 6. அண்ணா -செவ்வாழை. 7 பூமணி - நாக்கு. 8. ச.தமிழ்ச்செல்வன் - வெயிலோடுபோய்.

அலகு- 4 இலக்கியவரலாறு

(15 மணி நேரம்)

1. மரபுக் கவிதையின் தோற்றம்,வளர்ச்சி
2. புதுக்கவிதையின் தோற்றம்,வளர்ச்சி
3. சிறுகதையின் தோற்றம்,வளர்ச்சி
4. புதுக்கவிதையின் அடிப்படைகள், சிறுகதையின் அடிப்படைகள்

அலகு- 5 இலக்கணமும் படைப்பாக்கப் பயிற்சியும்

(20 மணி நேரம்)

1. எழுத்துக்களின் பொதுப் பிறப்பு.
2. வல்லினம் மிகும் இடங்கள், மிகா இடங்கள்.
3. ண,ன,ந, ற,ர, ல,ள,ழ வேறுபாடுகள்.
4. நிறுத்தற்குறிகளின் பயன்பாடு.
5. கவிதை, சிறுகதை எழுதப் பயிற்சி

பாடநூல்

இக்கால இலக்கியம் (தொகுப்பு), நியூசெஞ்சுரி புக்ஹவுஸ் வெளியீடு, மதுரை, 2020.

பார்வை நூல்கள்

1. புதிய நோக்கில் தமிழ் இலக்கிய வரலாறு, தமிழண்ணல், மீனாட்சி புத்தக நிலையம், மதுரை, 2017.
2. நற்றமிழ் இலக்கணம், டாக்டர் சொ.பரமசிவம், ஐந்திணைப் பதிப்பகம், சென்னை, 2016.

இணையம்

www.azhivasudarkal.com

www.sramakrishnan.com

கற்பித்தல் முறைகள்

கரும்பலகை, மூலநூல்கள், குறும்படங்கள், விளக்கக்காட்சிகள் (பிபிடி)

பாடத்திட்டம் - வரைவாளர்

முனைவர் ந. இரத்தினக்குமார், உதவிப்பேராசிரியர்

COURSE LEARNING OUTCOME

CLO	கற்றலின் வெளிப்பாடு	Knowledge level
CLO1	கவிதைகள் வெளிப்படுத்தும் மனித அன்பு, பெண்நிலைகள், மொழியின்சிறப்பு, தொழிலாளர் நிலை போன்றவற்றை அறியச் செய்தல்.	K1, K2
CLO2	கவிதைகளின் கருத்துப் பரிமாற்றம், உயர்மனிதச் செயல்பாடுகளை ஊக்குவித்து நடைமுறையில் பின்பற்றல்.	K2
CLO3	கதையின் உள்ளடக்கம்,வடிவம் -மாந்தர் எண்ணம், உணர்வு, நடத்தை, சமூகப் பண்பாட்டுச் செயல்பாட்டில்- ஈடுபடுதல்.	K2,K3
CLO4	இலக்கிய வரலாற்றை நிரல்படுத்திப் படைப்பாளிகளின் அறிவுத்திறத்தில் ஈடுபடச்செய்தல்.	K3,
CLO5	மொழியின் சிறப்புகளைத் தொகுத்தல். படைப்பூக்கத்துடன் பிழை நீக்கித் தனித்துவமாக எழுதத் தூண்டல்.	K4

CLO-PSO Mapping

CLO\PSO	PSO1	PSO2	PSO3	PSO4	PSO5
CLO1	-	-	1	1	-
CLO2	-	-	2	2	-
CLO3	-	-	3	3	-
CLO4	-	-	4	4	-
CLO5	-	-	3	3	-

BLUE PRINT

வ. எண்.	CLOS	K Level	பகுதி -அ		பகுதி -ஆ		பகுதி -இ	பகுதி -ஈ	
			சரியான விடையைத் தேர்ந்தெடுத்து எழுதுக		ஒரே ஒரு தொடர்களில் விடை தருக				
			கேள்விகளின் எண்ணிக்கை	K- Level	கேள்விகளின் எண்ணிக்கை	K- Level			
1	CLO1	up to K2	2	K1 & K2	1	K1	2(K1 & K1)	1 (K2)	
2	CLO2	up to K3	2	K1 & K2	1	K1	2(K2 & K2)	1 (K3)	
3	CLO3	up to K3	2	K1 & K2	1	K2	2(K3 & K3)	1 (K3)	
4	CLO4	up to K4	2	K1 & K2	1	K2	2(K4 & K4)	1 (K4)	
5	CLO5	up to K3	2	K1 & K2	1	K2	2(K3 & K3)	1 (K3)	
No. of question to be asked			10		5		10		5
No. of question to be answered			10		5		5		3
Trade mark for each section			1		2		5		10
Total Marks for each section			10		10		25		30

K1 – நினைவூட்டல்

K2 – அறிந்து கொள்ளுதல்

K3 – ஈடுபடுத்துதல்

K4 – பகுத்தறிதல்

Distribution of Section – wise Marks with K Levels

K- Levels	Section–A (No Choice)	Section–B (No Choice)	Section–C Either/or	Section–D (open choice)	Total Marks	% of Marks without	Consolidated
K1	5	4	10	-	19	15.83	42%
K2	5	6	10	10	31	25.83	
K3	-	-	20	30	50	41-67	42%
K4	-	-	10	10	20	16.67	16%
	10	10	50	50	120	100.00	100%

LESSON PLAN

UNIT	DESCRIPTION	Hrs - 90 (Six for a week)	Mode
அலகு - 1	<p>மரபுக்கவிதை</p> <ol style="list-style-type: none"> 1. பாரதியார் - அ நிற்பதுவே நடப்பதுவே... ஆ செந்தமிழ் நாடெனும் போதினிலே... இ. வீணையடி நீ எனக்கு... 2. பாரதிதாசன் அ. தமிழின் இனிமை ஆ. பெண்ணுக்கு நீதி இ. தொழிலாளர் விண்ணப்பம் 	15	மூலநூல்கள், விளக்கவுரை, இசைக்கோர்வைகள்
அலகு -2	<p>புதுக்கவிதை</p> <ol style="list-style-type: none"> 1. வருத்தம் - சுந்தரராமசாமி 2. சகாராவைத் தாண்டாத ஒட்டகங்கள் - நா. காமராசன் 3. தேசப்பிதாவிற்கு ஒரு தெருப்பாடகனின் அஞ்சலி - மு. மேத்தா 4. கதவு - அப்துல் ரகுமான் 5. இறக்கமுடியாத சிலுவைகள்- வைரமுத்து 6. தூர் - நா. முத்துக்குமார் 7. ஒரு கதவும் கொஞ்சம் கள்ளிப்பாலும் - தாமரை 8. கனவுகள் ± கற்பனைகள் = காகிதங்கள் - மீரா 9. அம்மா - இளம்பிறை 10. ஹைக்கூ கவிதைகள் - (10) <p>நாட்டுப்புறப்பாடலும் திரைப்படப்பாடலும்</p> <ol style="list-style-type: none"> 1. ஆத்தா உன் சேலை... - ஏகாதேசி 2. மணப்பாறை மாடு கட்டி மாயவரம் ஏறுபூட்டி...- மருதகாசி 	20	மூலநூல்கள், விளக்கக்காட்சிகள்(பிபிடி)
அலகு -3	<p>சிறுகதைகள்(8)</p> <ol style="list-style-type: none"> 1. புதுமைப்பித்தன் - காஞ்சன. 2. கு.ப.ராஜகோபாலன் - நூருன்னிசா. 3. கி. ராஜநாராயணன் - கதவு. 4. அசோகமித்திரன் - புலிக்கலைஞன். 5. சா.கந்தசாமி - தக்கையின் மீது நான்கு கண்கள். 	20	மூலநூல்கள்,, கலந்துரையாடல் குறும்படங்கள்

	6. அண்ணா -செவ்வாழை. 7. பூமணி - நாக்கு. 8. ச.தமிழ்ச்செல்வன் - வெயிலோடுபோய்.		
அலகு -4	இலக்கியவரலாறு 1. மரபுக் கவிதையின் தோற்றம், வளர்ச்சி 2. புதுக்கவிதையின் தோற்றம்,வளர்ச்சி 3. சிறுகதையின் தோற்றம்,வளர்ச்சி 4. புதுக்கவிதையின் அடிப்படைகள், சிறுகதையின் அடிப்படைகள்	15	மூலநூல்கள், , விளக்கவுரை
அலகு-5	இலக்கணம் 1. எழுத்துக்களின் பிறப்பு, 2. வல்லினம் மிகும் இடங்கள், மிகா இடங்கள் 3. ண,ன,ந, ற,ர, ல,ள,ழ வேறுபாடுகள் 4. நிறுத்தற் குறிகளின் பயன்பாடு 5. கவிதை, சிறுகதை எழுதப் பயிற்சி	20	மொழிப் பயிற்சி கவிதை, கதை எழுதப் பயிற்சி

DEPARTMENT OF TAMIL				CLASS: CLASS: I B.A. / B.Sc.				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
II	Part -1	20U2TLA2	இடைக்கால இலக்கியமும் உரைநடையும்	3	6	25	75	100

குறிக்கோள்

- சைவ, வைணவ இலக்கியங்களின் நுட்பங்களைப் பயிற்றுவித்தல்.
- தத்துவ மரபின் அடிப்படைகளை உணரச் செய்தல்.
- சிற்றிலக்கியங்களின் வடிவ,உள்ளடக்கங்களைத் தெளிதல்.

அலகு- 1 தேவாரம் & நாலாயிரதிவ்வியப்பிரபந்தம் (20 மணி நேரம்)

அ. தேவாரம்

1. திருநாவுக்கரசர் நமச்சிவாயத் திருப்பதிகம்) “சொற்றுணை வேதியன்” -10பாடல்கள்.
2. திருவாசகம்-(பிடித்தபத்து)உம்பர் கட்கரசே ஒழிவற நிறைந்த யோகமே-10பாடல்கள்.

ஆ. நாலாயிரதிவ்வியப்பிரபந்தம்

1. பெரியாழ்வார்-3ஆம் திருமொழி - திருத்தாலாட்டு மாணிக்கங்கட்டி வைரம் இடைக்கட்டி -10 பாடல்கள்.
2. ஆண்டாள் - திருப்பாவை - முதல் 10 பாடல்கள்.

அலகு- 2. சிற்றிலக்கியங்கள் (20 மணி நேரம்)

1. கலிங்கத்துப்பரணி - போர்பாடியது (முதல்5 பாடல்கள்).
2. குற்றாலக்குறவஞ்சி - மலைவளம் குறித்த - 5 பாடல்கள்.
3. அழகர்கிள்ளைவிடுதூது - கிளியின்சிறப்புகள் - முதல் 10 கண்ணிகள்.
4. முக்கூடற்பள்ளு - தென்கரைவளம்,(23)வடகரைவளம்(26) மழை வளம்(33,36) -4பாடல்கள்.
5. மீனாட்சியம்மைபிள்ளைத்தமிழ் - வருகைப்பருவம் - 2 பாடல்கள்.
6. அபிராமி அந்தாதி - முதல் 10பாடல்கள்.

அலகு- 3 உரைநடை- இலக்கிய மகரந்தம்(தொகுப்பு) (15 மணி நேரம்)

அலகு- 4 இலக்கிய வரலாறு (15 மணி நேரம்)

1. சைவத்தின் தமிழ்ப்பணி.
2. வைணவத்தின் தமிழ்ப்பணி.
3. சிற்றிலக்கியத்தின் தோற்றம், வளர்ச்சி.
4. உரைநடையின் தோற்றம்,வளர்ச்சி.

அலகு- 5. இலக்கணம் (20 மணி நேரம்)

1. பெயர்ச்சொல் - வகைகள்.
2. ஆகுபெயர் - வகைகள்.
3. வினைச்சொல் - வகைகள்.
4. தற்சமம், தற்பவம்.

பாடநூல்கள் :

1. இடைக்கால இலக்கியம் (தொகுப்பு) - நியூசெஞ்சுரி பக்ஹவுஸ் வெளியீடு, மதுரை,2020
2. இலக்கிய மகரந்தம்(தொகுப்பு) - நியூசெஞ்சுரி பக்ஹவுஸ், மதுரை, 2018

பார்வை நூல்கள் :

1. தமிழ் இலக்கிய வரலாறு - தி. பாக்கியமேரி, நியூசெஞ்சுரி பக்ஹவுஸ், மதுரை, 2016.
2. சிற்றிலக்கியச் செல்வம், ந.வீ. செயராமன், மணிவாசகர் பதிப்பகம், மதுரை.2010.

இணையம்

- 1 www.maduraiproject.com
- 2 www.noolagam.com

கற்பித்தல் முறைகள்

கரும்பலகை, மூலநூல்கள், இசைக் கோர்வைகள், விளக்கக்காட்சிகள் (பிபிடி)

பாடத்திட்டம் - வரைவாளர்

முனைவர் வெ.உஷா, உதவிப்பேராசிரியர்

LESSON PLAN

UNIT	DESCRIPTION	Hrs-90 (Six for a week)	Mode
அலகு 1	<p>தேவராம்.</p> <p>அ) 1. நமச்சிவாயத் திருப்பதிகம் திருநாவுக்கரசர் தேவராம்.</p> <p>2. திருவாசம் - பிடித்த பத்து மாணிக்கவாசகர்.</p> <p>ஆ) நாலாயிர திவ்வியப்பிரபந்தம்</p> <p>1. திருத்தாலாட்டு, பெரியாழ்வார்</p> <p>3ஆம் திருமொழி, 10 பாடல்கள்.</p> <p>2. ஆண்டாள் திருப்பாவை முதல் 10 பாடல்கள்.</p>	20	கரும்பலகை, மூலநூல்கள், விளக்கவுரை இசைக்கோர்வைகள்
அலகு 2	<p>சிற்றிலக்கியம்</p> <p>1. கலிங்கத்துப்பரணி போர் பாடியது. 5 பாடல்கள்.</p> <p>2. குற்றாலக்குறவஞ்சி மலைவளம் 5 பாடல்கள்.</p> <p>3. அழகர் கிள்ளைவிடுதூது. கிளியின் சிறப்புக்கள் - 10 கண்ணிகள்.</p> <p>4. மீனாட்சியம்மை பிள்ளைத் தமிழ் வருகைப்பருவம் - 2 பாடல்கள்.</p> <p>5. அபிராமி அந்தாதி - முதல் 5 பாடல்கள்.</p>	20	கரும்பலகை, மூலநூல்கள், விளக்கக்காட்சிகள்(பிபிடி) விளக்கவுரை
அலகு 3	<p>உரைநடை இலக்கியம் - இலக்கிய மகரந்தம் (தொகுப்பு)</p>	20	மூலநூல்கள், விளக்கவுரை
அலகு 4	<p>இலக்கிய வரலாறு</p> <p>1. சைவத்தின் தமிழ்ப்பணி.</p> <p>2. வைணவத்தின் தமிழ்ப்பணி.</p> <p>3. சிற்றிலக்கியங்களின் தோற்றமும் வளர்ச்சியும்.</p> <p>4. உரைநடையின் தோற்றமும் வளர்ச்சியும்.</p>	15	கரும்பலகை, மூலநூல்கள், விளக்கக்காட்சிகள்(பிபிடி) விளக்கவுரை
அலகு 5	<p>இலக்கணம்</p> <p>1. பெயர்ச்சொல் - வகைகள்</p> <p>2. ஆகுபெயரின் வகைகள்</p> <p>3. வினைச்சொல் - வகைகள்</p> <p>4. தற்சமம், தற்பவம்</p>	15	கரும்பலகை, மூலநூல்கள்,

COURSE OUT COME

CLO	கற்றலின் வெளிப்பாடு	Knowledge level
CLO1	சிற்றிலக்கியங்கள் குறித்த அடிப்படைக் கருத்துகளைப் பெறுவர்.	K1, K2
CLO2	பக்தி இலக்கியங்கள் வெளிப்படுத்தும் சமயம் சார்ந்த செய்திகளைப் புரிவர்.	K2
CLO3	சைவ வைணவ சித்தாந்த இறை தத்துவக் கருத்துகளைத் தெரிந்து நடைமுறைப்படுத்திக்கொள்வர்.	K2,K3
CLO4	இலக்கிய வரலாறு தரும் வாழ்வியல் கருத்துகளைப் பொருத்திப் பார்க்கும் திறன் பெறுவர்.	K2,K3
CLO5	.மொழியின் நுட்பங்களின் மூலமாக ஆளுமைத் திறனை வளர்த்துக் கொள்வர்.	K4

CLO-PSO Mapping

CLO PSO	PSO1	PSO2	PSO3	PSO4	PSO5
CLO1	-	-	1	1	-
CLO2	-	-	2	2	-
CLO3	-	-	3	3	-
CLO4	-	-	4	4	-
CLO5	-	-	3	3	-

BLUE PRINT

வ. எண்.	CLOS	K Level	பகுதி -அ		பகுதி -ஆ		பகுதி- இ	பகுதி ஈ
			சரியான விடையைத் தேர்ந்தெடுத்து எழுதுக		ஒரொரு தொடர்களில் விடை தருக			
			கேள்விகளின் எண்ணிக்கை	K- Level	கேள்விகளின் எண்ணிக்கை	K- Level		
1	CLO1	up to K2	2	K1 & K2	1	K1	2(K1 & K1)	1 (K2)
2	CLO2	up to K3	2	K1 & K2	1	K1	2(K2 & K2)	1 (K3)
3	CLO3	up to K3	2	K1 & K2	1	K2	2(K3 & K3)	1 (K3)
4	CLO4	up to K4	2	K1 & K2	1	K2	2(K4 & K4)	1 (K4)
5	CLO5	up to K3	2	K1 & K2	1	K2	2(K3 & K3)	1 (K3)
No. of question to be asked				10	5		10	5
No. of question to be answered				10	5		5	3
Trade mark for each section				1	2		5	10
Total Marks for each section				10	10		25	30

K1 – நினைவூட்டல்

K2 – அறிந்து கொள்ளுதல்

K3 – ஈடுபடுத்துதல்

K4 – பகுத்தறிதல்

Distribution of Section – wise Marks with K Levels

K- Levels	Section–A (No Choice)	Section–B (No Choice)	Section–C Either/or	Section–D (open choice)	Total Marks	% of Marks without	Consolidated
K1	5	4	10	-	19	15.83	42%
K2	5	6	10	10	31	25.83	
K3	-	-	20	30	50	41-67	42%
K4	-	-	10	10	20	16.67	16%
	10	10	50	50	120	100.00	100%

DEPARTMENT OF TAMIL				CLASS: I B.Com (General, PA, B&I, CM)				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
I	Part 1	20U1TKL1	பொதுத் தமிழ் -1	1	3	25	75	100

குறிக்கோள்

- தனிமனித அறம், பொது அறம் உரைக்கும் அறநூல்களின் பொருண்மைகளைத் தெளிதல்.
- பக்தி மரபின் அடிப்படைகளை உணரச் செய்தல்.
- கவிதைகளின் குறியீட்டுப் படிமப் பண்புகளைப் பயிற்றுவித்தல்.

அலகு: 1 அற இலக்கியம் (10 மணி நேரம்)

- அ) திருக்குறள் - பொருள்செயல்வகை(10 குறள்கள்)
 ஆ) நாலடியார் - நட்பாராய்தல் அதிகாரத்தில் முதல் 5 பாடல்கள்
 இ) இனியவை நாற்பது - கொல்லாமை முன் இனிது ...
 மானமழிந்த பின் வாழாமை...
 பத்தும் கொடுத்தும்.....

அலகு: 2 பக்தி இலக்கியம் (8 மணி நேரம்)

1. திருநீற்றுப்பதிகம் - மந்திரமாவது நீறு.....(பதிகம் முழுமையும்)
 2. ஆண்டாள் - திருப்பாவை - முதல் 10 பாடல்கள்.

அலகு: 3 இக்கால இலக்கியம் (7 மணி நேரம்)

- அ) பாரதியார் - காக்கைச் சிறகினிலே நந்தலாலா...
 ஆ) பாரதிதாசன் - கனியிடை ஏறிய.....
 இ) மு. மேத்தா - தேசப்பிதாவிற்கு ஒரு தெருப்பாடகனின் அஞ்சலி

அலகு: 4 உரைநடை இலக்கியம் (10 மணி நேரம்)

- பண்டையத் தமிழகத்தில் வணிகம் - மயிலை சீனி. வேங்கடசாமி
 (முதல் ஐந்து கட்டுரைகள் - 1. சங்க கால மக்கள் வாழ்க்கை 2. பண்டமாற்று
 3. போக்குவரத்துச் சாதனங்கள் 4. தமிழ்நாட்டு வாணிகர் 5. பிறநாட்டு வாணிகர்)

அலகு: 5 இலக்கணமும் பயிற்சியும் (10 மணி நேரம்)

- அ) எழுத்துகளின் பொதுப்பிறப்பு
 ஆ) நிறுத்தற் குறிகளின் பயன்பாடு.
 இ) கடிதங்கள் எழுதப் பயிற்சி - வேண்டுகோள், புகார், முறையீடு
 ஈ) கட்டுரைகள் எழுதப் பயிற்சி - இந்தியஒற்றுமை, தாய்மொழி வழிக் கல்வி, தன்வரலாறு

பாடநூல்கள்

1. பொதுத்தமிழ் - 1, தொகுப்பு - தமிழ்த்துறை, மதுரைக் கல்லூரி, மதுரை
2. பண்டையத் தமிழகத்தில் வணிகம் - மயிலை சீனி. வேங்கடசாமி, கௌரா பதிப்பகம், திருச்சி, 2017

பார்வை நூல்கள்

1. நற்றமிழ் இலக்கணம், டாக்டர் சொ.பரமசிவம், ஐந்திணைப் பதிப்பகம், சென்னை, 2016.
2. தமிழ் இலக்கிய வரலாறு, அ.கா.பெருமாள், சுதர்சன் பக்ஸ், நாகர்கோயில், 2018.

இணையம்

1. www.maduraiproject.com
2. www.noolagam.com

கற்பித்தல் முறைகள்

மூலநூல்கள், இசைக் கோர்வைகள், விளக்கக்காட்சிகள் (பிபிடி)

பாடத்திட்டம் - வரைவாளர்

முனைவர் ந. இரத்தினக்குமார், உதவிப் பேராசிரியர்

LESSON PLAN

UNIT	DESCRIPTION	Hrs-45 (Three for a week)	Mode
அலகு -1	<p>அற இலக்கியம் நேரம்)</p> <p>அ) திருக்குறள் - பொருள்செயல்வகை(10குறள்கள்).</p> <p>ஆ) நாலடியார் நட்பாராய்தல் அதிகாரத்தில் - முதல் 5 பாடல்கள்.</p> <p>இ) இனியவை நாற்பது - கொல்லாமை முன் இனிது ... மானமழிந்த பின் வாழாமை... பத்தும் கொடுத்தும்</p>	10	<p>கரும்பலகை, மூலநூல்கள், விளக்கவுரை, இசைக்கோர்வைகள்</p>
அலகு -2	<p>பக்தி இலக்கியம்</p> <p>1. திருநீற்றுப்பதிகம் - மந்திரமாவது நீறு.... (பதிகம் முழுமையும்)</p> <p>2. ஆண்டாள் - திருப்பாவை - முதல் 10 பாடல்கள்.</p>	8	<p>கரும்பலகை, மூலநூல்கள், விளக்கவுரை,</p>
அலகு -3	<p>இக்கால இலக்கியம்</p> <p>அ) பாரதியார் - காக்கைச் சிறுகினிலே நந்தலாலா...</p> <p>ஆ) பாரதிதாசன் - கனியிடை ஏறிய.....</p> <p>இ) மு. மேத்தா - தேசப்பிதாவிற்கு ஒரு தெருப்பாடகனின் அஞ்சலி</p>	07	<p>கரும்பலகை, மூலநூல்கள், விளக்கவுரை, உரையாடல்</p>
அலகு -4	<p>உரைநடை</p> <p>பண்டையத் தமிழகத்தில் வணிகம் - மயிலை சீனி. வேங்கடசாமி</p> <p>முதல் ஐந்து கட்டுரைகள் -</p> <p>1. சங்க கால மக்கள் வாழ்க்கை</p> <p>2. பண்டமாற்று</p> <p>3. போக்குவரத்துச் சாதனங்கள்</p> <p>4. தமிழ்நாட்டு வாணிகர்</p> <p>5. பிறநாட்டு வாணிகர்</p>	10	<p>விளக்கவுரை</p>
அலகு -5	<p>இலக்கணமும் பயிற்சியும்</p> <p>அ) எழுத்துகளின் பொதுப்பிறப்பு</p> <p>ஆ) நிறுத்தற் குறிகளின் பயன்பாடு</p> <p>இ) கடிதங்கள் எழுதப் பயிற்சி - வேண்டுகோள், புகார், முறையீடு</p> <p>ஈ) கட்டுரைகள் எழுதப் பயிற்சி - இந்திய ஒற்றுமை, தாய்மொழி வழிக் கல்வி, தன்வரலாறு</p>	10	<p>கரும்பலகை, மூலநூல்கள், மொழிப் பயிற்சி கடிதம்,கட்டுரை - எழுதப்பயிற்சி</p>

COURSE OUT COME

CLO	கற்றலின் வெளிப்பாடு	Knowledge level
CLO1	கவிதைகள் உருவாக்கிய அக, புற மாற்றங்களை அறிதல்.	K1, K2
CLO2	பக்திஇலக்கியங்கள் வழி தனிமனித நடத்தைகளில் ஏற்பட்ட இறைமாற்றங்களைப் புரிதல்.	K2
CLO3	நட்பின் திறம், செய்ந்நன்றியறிதல், கல்வியின் அவசியம் போன்றவற்றை அற இலக்கியங்கள் வழியில் உணர்தல்.	K1, K2
CLO4	மரபுசார்ந்த வணிகத்தை நினைவுபடுத்தல், பாரம்பரிய சந்தைமுறைகளைத் தெளிதல்.	K2,K3
CLO5	இலக்கணநெறிமுறைகளை இலக்கியத்துடன் இணைத்துப் பகுத்தறிதல்.	K4

CLO-PSO Mapping

CLO\PSO	PSO1	PSO2	PSO3	PSO4	PSO5
CLO1	-	-	1	1	-
CLO2	-	-	2	2	-
CLO3	-	-	3	3	-
CLO4	-	-	4	4	-
CLO5	-	-	3	3	-

BLUE PRINT

வ. எண்.	CLOS	K Level	பகுதி -அ		பகுதி -ஆ		பகுதி- இ	பகுதி ஈ
			சரியான விடையைத் தேர்ந்தெடுத்து எழுதுக		ஓரிரு தொடர்களில் விடை தருக		விரிவாக விடையளிக்க (Either/or)	கட்டுரை வடிவில் விடை தருக
			கேள்விகளின் எண்ணிக்கை	K- Level	கேள்விகளின் எண்ணிக்கை	K- Level		
1	CLO1	up to K2	2	K1 & K2	1	K1	2(K1 & K1)	1 (K2)
2	CLO2	up to K3	2	K1 & K2	1	K1	2(K2 & K2)	1 (K3)
3	CLO3	up to K3	2	K1 & K2	1	K2	2(K3 & K3)	1 (K3)
4	CLO4	up to K4	2	K1 & K2	1	K2	2(K4 & K4)	1 (K4)
5	CLO5	up to K3	2	K1 & K2	1	K2	2(K3 & K3)	1 (K3)
No. of question to be asked			10		5		10	5
No. of question to be answered			10		5		5	3
Trade mark for each section			1		2		5	10
Total Marks for each section			10		10		25	30

K1 – நினைவூட்டல்

K2 – அறிந்து கொள்ளுதல்

K3- ஈடுபடுத்துதல்

K4 – பகுத்தறிதல்

Distribution of Section – wise Marks with K Levels

K- Levels	Section-A (No Choice)	Section-B (No Choice)	Section-C Either/or	Section-D (open choice)	Total Marks	% of Marks without	Consolidated
K1	5	4	10	-	19	15.83	42%
K2	5	6	10	10	31	25.83	
K3	-	-	20	30	50	41-67	42%
K4	-	-	10	10	20	16.67	16%
	10	10	50	50	120	100.00	100%

DEPARTMENT OF TAMIL				CLASS: I B.Com (General, PA, B&I, CM)				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
II	Part 1	20U2TKL2	பொதுத் தமிழ்-2	1	3	25	75	100

குறிக்கோள்

- சங்க இலக்கியங்கள் வெளிப்படுத்தும் வாழ்வியலைப் புலப்படுத்தல்.
- காப்பியங்களின் அடிப்படைகளை அறிதல்.
- சிலப்பதிகாரத்தின் முக்கியத்துவத்தை உணரச் செய்தல்.

பாடத்திட்டம்

அலகு- 1 சங்கஇலக்கியம் (10 மணி நேரம்)

- அகம் : அ) நற்றிணை - (பாடல் எண்கள் 01,14, 231.)
ஆ) குறுந்தொகை- (பாடல் எண்கள் 3,23,25,40)
புறம் : அ) புறநானூறு - (பாடல் எண்கள் 183, 192, 312)
ஆ) சிறுபாணாற்றுப்படை - மதுரையின் வளம்
(நறவுவா யுறைக்கும் நாகமுதிர் நுணவத்..(51- 67)

அலகு- 2 காப்பிய இலக்கியம் (8 மணி நேரம்)

சிலப்பதிகாரம் (மங்கலவாழ்த்துப்பாடல்-முழுமையும்)

அலகு- 3 கட்டுரைகள் (10மணி நேரம்)

1. மீனாட்சிப் பட்டினம் - தொ. பரமசிவன்.
2. தமிழகத்தில் முத்துக்கள் - மயிலை சீனி. வேங்கடசாமி.
3. வைகை நதி நாகரிகம் - பாவெல் பாரதி.
4. தமிழ்த் திணையியல் கோட்பாடுகள் - பாமயன்.

அலகு- 4 இலக்கிய வரலாறு (7 மணி நேரம்)

- 1) பத்துப்பாட்டு.
- 2) எட்டுத்தொகை.
- 3) இரட்டைக்காப்பியங்கள்.

அலகு- 5 இலக்கணம் (10 மணி நேரம்)

1. வல்லினம் மிகும் இடங்கள்.
2. வல்லினம் மிகா இடங்கள்.
3. ல,ள,ழ, ர,ற வேறுபாடுகள்.
4. ண,ன,ந வேறுபாடுகள்.

பாடநூல்கள்

பொதுத்தமிழ் - 2

தொகுப்பு, தமிழ்த்துறை, மதுரைக்கல்லூரி, மதுரை

பார்வை நூல்கள்

1. புதிய நோக்கில் தமிழ் இலக்கிய வரலாறு, தமிழண்ணல், மீனாட்சி
2. புத்தக நிலையம், மதுரை, 2017.
3. தமிழ் இலக்கிய வரலாறு, மு. வரதராசன், சாகித்ய அகாதெமி, சென்னை, 2015.

இணையம்

1. www.tamilvirtu.com
2. www.jayamohan.com

கற்பித்தல் முறைகள்

கரும்பலகை, மூலநூல்கள், விளக்கக்காட்சிகள் (பிபிடி)

பாடத்திட்டம் - வரைவாளர்

முனைவர் ந. இரத்தினக்குமார், உதவிப்பேராசிரியர்

LESSON PLAN

UNIT	DESCRIPTION	Hrs - 45 (Three for a week)	Mode
அலகு -1	சங்கஇலக்கியம் அகம்:அ) நற்றிணை - (01,14, 231,) ஆ) குறுந்தொகை - (3,23,25,40) புறம்: அ) புறநானூறு - (192, 183, 312) ஆ) சிறுபாணாற்றுப்படை - மதுரையின் வளம் (நறவுவா யுறைக்கும் நாகமுதிர் நுணவத்...(51- 67)	10	கரும்பலகை, மூலநூல்கள், விளக்கவுரை,
அலகு -2	காப்பிய இலக்கியம் சிலப்பதிகாரம் - (மங்கலவாழ்த்துப்பாடல்- முழுமையும்	08	கரும்பலகை, மூலநூல்கள், விளக்கவுரை,
அலகு -3	கட்டுரைகள் 1. மீனாட்சிப் பட்டினம் - தொ. பரமசிவன் 2. தமிழகத்தில் முத்துக்கள் - மயிலை சீனி. வேங்கடசாமி 3. வைகை நதி நாகரிகம் - பாவெல் பாரதி 4. தமிழ்த் திணையியல் கோட்பாடுகள் - பாமயன்	10	கரும்பலகை, கலந்துரையாடல்
அலகு -4	இலக்கிய வரலாறு 1) பத்துப்பாட்டு 2) எட்டுத்தொகை 3) இரட்டைக்காப்பியங்கள்	07	கரும்பலகை, மூலநூல்கள், விளக்கவுரை
அலகு-5	இலக்கணம் 1) வல்லினம் மிகும் இடங்கள் 2) வல்லினம் மிகா இடங்கள் 3) ல,ள,ழ, ர,ற வேறுபாடுகள் 4) ண,ன,ந வேறுபாடுகள்	10	கரும்பலகை, மூலநூல்கள், மொழிப் பயிற்சி

COURSE OUT COME

CLO	கற்றலின் வெளிப்பாடு	Knowledge level
CLO1	அகமும் புறமும் மனிதனின் செயல்பாடுகளைத் தீர்மானிப்பதைப் புரிந்து கொள்தல்.	K1, K2
CLO2	பண்டைய, வாழ்வியல் களங்களைக்கூறி அறிவுத்திறனை மேம்படுத்துதல்.	K2
CLO3	வரலாற்றறிவு, வட்டார அறிவு, மேம்படுத்தல். பண்டைய பொருளியல் பரிமாணங்களைக் கிளர்த்தல்.	K2,K3
CLO4	பாட்டும் தொகையும் உணர்த்தும் வாழ்வியல் நெறிகளைத் தொகுத்தல். காப்பியங்களின் படைப்பூக்கத்தைத் தெளிதல்.	K2,K3
CLO5	இலக்கணப் பயன்பாடு, மொழியின் தனித்துவம் ஆய்தல், தொகுத்தல். பிழை நீக்கல்.	K4

CLO-PSO Mapping

CLO\PSO	PSO1	PSO2	PSO3	PSO4	PSO5
CLO1	-	-	1	1	-
CLO2	-	-	2	2	-
CLO3	-	-	3	3	-
CLO4	-	-	4	4	-
CLO5	-	-	3	3	-

BLUE PRINT

வ. எண்.	CLOS	K Level	பகுதி -அ		பகுதி -ஆ		பகுதி- இ	பகுதி ஈ
			சரியான விடையைத் தேர்ந்தெடுத்து எழுதுக		ஒரொரு தொடர்களில் விடை தருக			
			கேள்விகளின் எண்ணிக்கை	K- Level	கேள்விகளின் எண்ணிக்கை	K- Level		
1	CLO1	up to K2	2	K1 & K2	1	K1	2(K1 & K1)	1 (K2)
2	CLO2	up to K3	2	K1 & K2	1	K1	2(K2 & K2)	1 (K3)
3	CLO3	up to K3	2	K1 & K2	1	K2	2(K3 & K3)	1 (K3)
4	CLO4	up to K4	2	K1 & K2	1	K2	2(K4 & K4)	1 (K4)
5	CLO5	up to K3	2	K1 & K2	1	K2	2(K3 & K3)	1 (K3)
No. of question to be asked				10	5		10	5
No. of question to be answered				10	5		5	3
Trade mark for each section				1	2		5	10
Total Marks for each section				10	10		25	30

K1 - நினைவூட்டல்

K3- ஈடுபடுத்துதல்

K2 - அறிந்து கொள்ளுதல்

K4 - பகுத்தறிதல்

Distribution of Section – wise Marks with K Levels

K-	Section–A	Section–B	Section–C	Section–D	Total	% of	Consolidated
K1	5	4	10	-	19	15.83	42%
K2	5	6	10	10	31	25.83	
K3	-	-	20	30	50	41-67	42%
K4	-	-	10	10	20	16.67	16%
	10	10	50	50	120	100.00	100%

சான்றிதழ் படிப்பு
மதுரைக் கல்லூரி (தன்னாட்சி) மதுரை - 11.
தேசியத்தர நிர்ணய மதிப்பீட்டில் 'ஏ' தகுதி பெற்றது
தமிழ்த்துறை

பேச்சுக்கலை (சான்றிதழ் படிப்பு)

(அனைத்து மாணவர்களுக்கும்)

பாடநேரம் : 30மணி

நோக்கம் :

மாணவர்கள் பேச்சுக்கலையைக் கற்றுக் கொள்ளவும் வளர்த்துக் கொள்ளவும் இத்தாள் நோக்கமாகக் கொண்டுள்ளது.

இயல் 1 : பேச்சு - தலைசிறந்த கலை - பேச்சுக்கலையின் தோற்றம் - இலக்கியங்களில்பேச்சு - சங்க இலக்கியம் தொடங்கி இன்றைய இலக்கியம் வரை.

இயல் 2 : மேடைப்பேச்சு வகைகள் - மேடைப் பேச்சின் தோற்றம் - கல்லூரி விழாக்களில் பேசுதல் - அரசியல் சொற்பொழிவுகள் - சமயச் சொற்பொழிவுகள் - பாராட்டுக் கூட்டங்கள் - கருத்தரங்குகள் - பட்டிமன்றங்கள் - வழக்காடு மன்றங்கள்.

இயல் 3 : பேச்சாளரின் தகுதிகள் - அச்சமின்மை - குரல்வளம் - தோற்றப் பொலிவு - மன ஒருமைப்பாடு - உச்சரிப்பு - உடல்மொழி - மொழியறிவு - ஆழ்ந்த இலக்கியப் பயிற்சி - பொதுஅறிவு - உண்மை பேசுதல்.

இயல் 4 : பேச்சின் தொடக்கம் - சிறந்த சொற்பொழிவு பண்புகள் - முன் தயாரிப்பு - பொன்மொழிகளுடன் தொடங்குதல் - பேச்சுத் தொடக்கம் குறித்த அறிஞர்களின் கருத்துகள் - கருத்துத் தொடர்பு - இலக்கண நூலார் சிந்தனைகள் - மேற்கோள்களைப் பொருத்தமுறை எடுத்தாளுதல்.

இயல் 5 : பேச்சுத் தயாரிப்பு - சில குறிப்புகள் - பேச்சை முடித்தல் - திடுமென முடித்தல் - கவிதை கூறி முடித்தல் - தொகுவுரை கூறிமுடித்தல் - வேண்டுகோள் முன்வைத்து முடித்தல் - துளுரை செய்து முடித்தல் - பேச்சுக்கான குறிப்புகள் முன் தயாரிக்கும் முறைகள் - தரவுகளைத் தயாரித்தல்.

பாடநூல் :

1. பேச்சுக்கலை டாக்டர் ம.திருமலை, மீனாட்சி பதிப்பகம், முதற்பதிப்பு, திசம்பர் 2011.
2. பேசும்கலை கு. ஞானசம்பந்தன், நியூ செஞ்சுரிபுக் ஹவுஸ் பி.லிமிட், மதுரை.

பாடத்திட்டம் - வரைவாளர்கள்

முனைவர் வெ.உஷா, உதவிப்பேராசிரியர்

முனைவர் ம. கண்ணன், உதவிப்பேராசிரியர்

மதுரைக் கல்லூரி (தன்னாட்சி) மதுரை – 625011
தேசியத் தர நிர்ணய மறுமதிப்பீட்டில் (3வது சுற்று) A தகுதி பெற்றது.
தமிழ்த்துறை (சுயநிதிப்பிரிவு) - இளங்கலைத் தமிழ்
2020 – 2021 ஆம் கல்வியாண்டு

பாடத்திட்ட முன்வரைவு

நோக்கம் (Vision)

தமிழ் இலக்கியங்கள் உயர்ந்த விழுமியங்களையும் அறங்களையும் உடையன. அவற்றைக் கற்பதன் வாயிலாகச் சமூகத்தில் மாணவர்களைப் பண்பட்டவர்களாகவும் நெறிப்பட்டவர்களாகவும் உருவாக்குதல்.

இலக்கு (Mission)

1. தாய்மொழியின் முக்கியத்துவத்தை மாணவர்களுக்கு உணர்த்துதல்.
2. தமிழ் மொழி இலக்கியத்தையும் அவ்விலக்கியம் காட்டும் பழைமை, பண்பாடு, நாகரிகம், முன்னோர் கடைப்பிடித்த அறநெறிகள் மற்றும் சமய வழிபாட்டு முறைகள் போன்ற இன்றியமையாதனவற்றை மாணவர்கள் அறியும்படிச் செய்தல்.
3. தமிழர்களின் அறநெறிகளையும் வாழ்க்கை முறைகளையும் பாதுகாக்க உணர்த்துதல்.

கல்வித் திட்டத்தின் நோக்கம் (Program Educational Objectives) (PEO)

1. தமிழ் இலக்கியங்களிலும் இலக்கணங்களிலும் தமிழ்மாணவர்களைச் சிறந்த ஆளுமை மிக்கவர்களாக மேம்படுத்துதல்.
2. மாணவர்களின் தனித்திறன்களான கற்பனைத் திறன்களையும் படைப்புத் திறன்களையும் வளர்த்து படைப்பாளுமை மிக்கவர்களாகத் திகழச் செய்தல்.
3. தமிழ் இலக்கிய, இலக்கண வளம் கொண்ட, ஆற்றல்மிக்க ஆசிரியர் சமூகத்தை உருவாக்குதல்.
4. செம்மொழியான தமிழ் மொழியில் பல்வேறு ஆய்வுத் தளங்களில் ஆய்வு மேற்கொள்ளத் தூண்டுதல்.
5. தமிழ் மொழியின் பெருமைகளையும் தமிழர்களின் தனிச்சிறப்புகளையும் உலகம் முழுவதும் பரப்பும் வகையில் பணிகளை மேற்கொள்ளச் செய்தல்.

கல்வித் திட்டத்தின் பயன்பாடு (Program Specific Outcomes) (PSO)

1. பழங்காலம் முதல் தற்காலம் வரையிலான தமிழ் இலக்கிய, இலக்கணங்களின் மரபுகள், மாற்றங்கள் குறித்த அடிப்படை அறிவினைப் பெறுவர்
2. தமிழ் இலக்கிய, இலக்கண வகைகள் குறித்தும் அவற்றின் தோற்றக் காரணிகள் குறித்துமான அடிப்படையைப் புரிந்துகொள்வர்.
3. தமிழ் மொழி ஆளுமையை வளர்ப்பதன் வழி, அரசு மற்றும் தனியார் துறைகளில் பணிவாய்ப்பினைப் பெறுவர்.
4. தமிழர் நாகரிகம், சமயம், மெய்யியல் மற்றும் கலைத் திறன்கள் தொடர்பான வரலாற்றினைப் புரிந்துகொள்வர்.
5. உளவியல், வரலாற்றியல், அறிவியல் போன்ற பிற துறைகளுடன் தமிழிற்கான தொடர்பை அறிவர்.

பருவம் - 1

Code No	Title	Hrs/ Week	Credit	Total Hours	Internal Marks	Ex. Marks	Total
20U1TLA1	பொதுத்தமிழ் 1	6	3	90	25	75	100
20U1ELA1	ஆங்கிலம் 1	6	3	90	25	75	100
20U1TMC1	இக்கால இலக்கியம்	5	3	75	25	75	100
20U1TMC2	நன்னூல் - எழுத்ததிகாரம்	4	2	60	25	75	100
20U1TAC1	தமிழக வரலாறும் பண்பாடும்	6	5	90	25	75	100
	மதிப்பீட்டுக் கல்வி மற்றும் தொழில்முறை நெறிக்கல்வி	3	3	45	25	75	100
		30	19				

பருவம் - 2

Code No	Title	Hrs/ Week	Credit	Total Hours	Internal Marks	Ex. Marks	Total
20U2TLA2	பொதுத்தமிழ் 2	6	3	90	25	75	100
20U2ELA2	ஆங்கிலம் 2	6	3	90	25	75	100
20U2TMC3	அற இலக்கியம்	5	4	75	25	75	100
20U2TMC4	நன்னூல் - சொல்லதிகாரம்	4	4	60	25	75	100
20U2TAC2	சிற்றிலக்கியம்	6	5	90	25	75	100
	சுற்றுச் சூழல் மற்றும் பாலினக் கல்வி	3	3	45	25	75	100
	கூடுதல் செயல்பாடு		1				
		30	23				

பருவம் – 3

Code No	Title	Hrs/ Week	Credit	Total Hours	Internal Marks	Ex. Marks	Total
20U3TLA3	பொதுத்தமிழ் 3	6	3	90	25	75	100
20U3ELA3	ஆங்கிலம் 3	6	3	90	25	75	100
20U3TMC5	பக்தி இலக்கியம்	4	3	60	25	75	100
20U3TMC6	யாப்பு, அணி	4	2	60	25	75	100
20U3TSM3	அடிப்படைக் கணிநியியல்	2	2	30	25	75	100
20U3TAC3	தமிழ் இலக்கிய வரலாறு	6	5	90	25	75	100
20U3TNM1	பேச்சுக் கலை	2	2	30	25	75	100
		30	20				

பருவம் – 4

Code No	Title	Hrs/ Week	Credit	Total Hours	Internal Marks	Ex. Marks	Total
20U4TLA4	பொதுத்தமிழ் 4	6	3	90	25	75	100
20U4ELA4	ஆங்கிலம் 4	6	3	90	25	75	100
20U4TMC7	காப்பிய இலக்கியம்	4	3	60	25	75	100
20U4TMC8	அகப்பொருள்	4	2	60	25	75	100
20U4TSM4	ஆட்சித் தமிழ்	2	2	30	25	75	100
20U4TAC4	மொழிபெயர்ப்பியல்	6	5	90	25	75	100
20U4TNM2	திரைப்படக் கலை	2	2	30	25	75	100
		30	20				

பருவம் - 5

Code No	Title	Hrs/ Week	Credit	Total Hours	Internal Marks	Ex. Marks	Total
20U5TMC9	இலக்கியத் திறனாய்வு	6	6	90	25	75	100
20U5TMC10	புறப்பொருள்	6	6	90	25	75	100
20U5TMC11	உரையாசிரியர்கள்	6	6	90	25	75	100
20U5TMC12	நாட்டுப்புறவியல்	6	5	90	25	75	100
20U5TMC13	கோயிற்கலை	4	4	60	25	75	100
20U5TSM5	அறிவியல் தமிழ்	2	2	30	25	75	100
		30	29				

பருவம் - 6

Code No	Title	Hrs/ Week	Credit	Total Hours	Internal Marks	Ex. Marks	Total
20U6TMC14	சங்க இலக்கியம்	6	6	90	25	75	100
20U6TMC15	ஒப்பிலக்கியம்	6	6	90	25	75	100
20U6TMC16	நாடகவியல்	6	6	90	25	75	100
20U6TMC17	விளம்பரக்கலை	6	5	90	25	75	100
20U6TMC18	மொழி வரலாறு	4	4	60	25	75	100
20U6TSM6	படைப்புத்திறன்	2	2	30	25	75	100
		30	29				

DEPARTMENT OF TAMIL				CLASS: I B.A. Tamil				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
I	MCT1	20U1TMC1	இக்கால இலக்கியம்	3	5	25	75	100

CO	கற்றலின் நோக்கம்	Knowledge level
CO1	சிறுகதை, புதினம், உரைநடை கவிதை, நாடகம் ஆகியவற்றை மாணவர்களுக்கு அறிமுகம் செய்தும் அவ்விலக்கியங்களின் புதுமைக்கூறுகளை இனங்காட்டுவதும் அவற்றின் வடிவ, உள்ளடக்கங்களை விளக்குதல்	K1, K2
CO2	இக்கால இலக்கிய அழகியலை மாணவர்கள் அறியும்படிச் செய்தல்	K2
CO3	இலக்கிய உள்ளடக்கம் பாடுபொருள் - மாந்தர், எண்ணம், உணர்வு, உடல் மொழி, சமூக அரசியல் பொருளாதார உடைமையும் உரிமையும் கருப்பொருள்களாகக் கொண்டு எடுத்துரைத்தல்;	K1, K2
CO4	இயற்கை செயற்கை பொருள்கள், புழங்கு பொருள்கள் அறிவு, மொழி படைப்புநெறி முதலானவற்றுடன் தொடர்புபடுத்தி இலக்கியத்துடன் அறிதல்.	K2,K3
CO5	தமிழ் படிக்கும் மாணவர்கள் போட்டித் தேர்வுகளில் கலந்து கொண்டு வேலை வாய்ப்புப்பெறுதல்	K4

Mapping of COs with PSOs					
	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO 1	1	1	1	1	1
CO 2		2			2
CO 3		2	3		
CO 4			3		3
CO5				3	3

3. மிகு இணைவு 2. சிறு இணைவு 1. குறு இணைவு

பாடத்திட்டம்

கூறு 1 அ. பாரதியார் கவிதைகள்

1. நிமிர்ந்த நன்னடை
2. நின்னைச் சரணடைந்தன்
3. மனதில் உறுதி வேண்டும்

ஆ. பாரதிதாசன் கவிதைகள்

1. நேர்மை வளையுது தொழிலாச்சு உலகம்
2. செந்தாமரைநீர் இலை, நீர்த்துளிகள்
3. தமிழுக்கும்

இ. அப்துல் ரகுமான்

1. கண்ணீரின் ரகசியம் (இறைவா எனக்குப்புன்னகை கொடு)
2. பாருக்குள்ள நல்ல நாடு
3. தூண்டில் இரை

ஈ. வைரமுத்து இன்னொரு தேசிய கீதம்

– இது வித்தியாசமான தாலாட்டு

கூறு - 2 புதினம் – புதிய மொட்டுக்கள் – பொன்னீலன்

கூறு - 3 சிறுகதை – புதுமைப்பித்தன் சிறுகதைகள் (1 முதல் 5 வரை)

கூறு - 4 உரைநடை – தமிழின்பம் – ரா.பி.சேதுப்பிள்ளை (1 முதல் 8 வரை)

கூறு - 5 நாடகம் – ஆறு நாடகங்கள் (சிவக்கண்ணன் – 1 முதல் 3 வரை)

பாடநூல்கள்

1. பாரதியார் கவிதைகள் – நியு செஞ்சுரி புக ஹவுஸ், இரண்டாம் பதிப்பு – செப்டம்பர் 2017
2. பாரதிதாசன் கவிதைகள் – பாவை பதிப்பகம்
3. ஆலாபனை – அப்துல் ரகுமான், கவிக்கோ பதிப்பகம் மூன்றாம் பதிப்பு – அக்டோபர் 2000
4. பொன்னீலன் – புதிய மொட்டுக்கள், நியு செஞ்சுரி புக ஹவுஸ் – 13 ஆம் பதிப்பு -2015
5. புதுமைப்பித்தன் கதைகள், கருப்பத்தேவன், தொகுப்பாசிரியர், பாவை பிரிண்டர்ஸ், 2016
6. ஆறு நாடகங்கள்– சிவக்கண்ணன், நியு செஞ்சுரி புக ஹவுஸ் 2017
7. தமிழின்பம் – ரா.பி.சேதுப்பிள்ளை, செண்பகா பதிப்பகம், 2012

பார்வை நூல்கள்:

1. சிறுகதை தோற்றம் வளர்ச்சி, சிட்டி சிவபாதசுந்தரம், மணிவாசகர் பதிப்பகம், 2016
2. புதுக்கவிதைத் தோற்றம் வளர்ச்சி, வல்லிக்கண்ணன், சாகித்ய அகாடமி வெளியீடு, 2018

இணையதளங்கள்:

www.tamilvu.org,

<http://ta.m.wikisource.org>

பாடத்திட்டம்

அலகு	பாடப்பகுதி	மணி	முறை
அ) கவிதைகள்	1. பாரதியார் கவிதைகள் 2. பாரதிதாசன் கவிதைகள் 3. அப்துல்ரகுமான் 4. வைரமுத்து- இன்னொரு தேசிய கீதம்	4 4 3 4	விவரிப்பு PPT
ஆ) புதினம்	1. நாவல் அறிமுகம் 2. மாந்தர்கள் சித்திரிப்பு 3. நாவல் கட்டமைப்பு 4. கதைக்கரு, போக்கு, வீழ்வு	4 4 3 4	PPT வாசிப்பு
இ) சிறுகதை	1. புதுமைப்பித்தன், கதைகள் அறிமுகம் 2. சிறுகதைகள் 3. மாந்தர் சித்திரிப்பு 4. சிறுகதைக் கட்டமைப்பு	4 4 3 4	PPT வாசிப்பு
ஈ) உரைநடை	1. உரைநடை அறிமுகம் 2. தமிழின்பம் கட்டுரைகள் 3. கட்டுரைக் கட்டமைப்பு 4. கட்டுரை விமர்சனம்	4 4 3 4	PPT வாசிப்பு
உ) நாடகம்	1. நாடகங்கள் அறிமுகம் 2. ஆறு நாடகங்கள் 3. நாடகக் கட்டமைப்பு 4. நாடக விமர்சனம்	2 6 2 5	PPT வாசிப்பு

DEPARTMENT OF TAMIL				CLASS: I B.A. Tamil				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
I	MCT2	20U1TMC2	நன்னூல் - எழுத்ததிகாரம்	2	4	25	75	100

CO	கற்றலின் நோக்கம்	Knowledge level
CO 1	நூல் : பாயிரம், அழகு, குற்றம், உத்தி, உரை, சூத்திரம்; கல்வி : ஆசிரியர் – மாணவர் இயல்பு, கற்றல் – கற்பித்தல், கற்கும் முறைமையினை அறிந்து கொள்ளல்	K1, K2
CO 2	எழுத்துக்கள் : எண்ணிக்கை, பெயர், வகை, பிறப்பு, மாத்திரை, வடிவம்; எழுத்துக்கள் வருமிடம் : முதல், இறுதி, மெய்மயக்கம்; எழுத்துப் போலி: போலி, சந்தியக்கரம் ஆகியவற்றை அறிந்து கொள்ளல்.	K1, K2
CO 3	சொற்களின் உறுப்புக்கள் : பதம் – பகுபதம் – பகுதி, விசுதி, இடைநிலை, சாரியை - பகாப்பதம் – ஓரெழுத்து ஒரு மொழி; வடமொழியாக்கம் ஆகியவற்றை அறிந்து கொள்ளல்	K1, K2
CO 4	உயிரீற்றுச் சொற்களின் புணர்ச்சி: பொதுவிதி; உயிரீற்றுச் சொற்களோடு நாற்கணமும் புணர்தல்; குற்றியலுகரப் புணர்ச்சி: எண்ணுப் பெயர்ப் புணர்ச்சி – திசைப் பெயர்ப் புணர்ச்சி ஆகியவற்றைப் புரிந்துகொள்ளலும் நடைமுறையில் பயன்படுத்தலும்.	K3
CO 5	மெய்யீற்றுச் சொற்களின் புணர்ச்சி: பொதுவிதி; ண, னகர, ல, ளகர, யரழ ஈற்றுப் புணர்ச்சி – மகர ஈற்றுப் புணர்ச்சி; உருபுகளின் புணர்ச்சி: பெயர்களோடு உருபுகள் சேர்தல் – பெயருக்கும் உருபுக்கும் இடையில் வரும் சாரியைகள் – விலக்குகள் ஆகியவற்றைப் புரிந்துகொள்ளலும் நடைமுறையில் பயன்படுத்தலும்.	K3

Mapping of COs with PSOs					
	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO 1	3				
CO 2	3				
CO 3	2		3		
CO 4			3		1
CO 5		3		1	

3. மிகு இணைவு 2. சிறு இணைவு 1. குறு இணைவு

பாடத்திட்டம்

கூறு 1: பாயிரவியல்

கூறு 2: எழுத்தியல் 1 முதல் 47 நூற்பாக்கள் வரை.

கூறு 3: எழுத்தியல் 48 முதல் இறுதிவரை, பதவியல்

கூறு 4: உயிரீற்றுப் புணரியல்

கூறு 5: மெய்யீற்றுப் புணரியல், உருபு புணரியல்

பாடநூல்

நன்னூல் – எழுத்ததிகாரம் – காண்டிகை உரை, ஆறுமுக நாவலர், மணிவாசகர் பதிப்பகம், 2017.

பார்வை நூல்கள்

நன்னூல் – எழுத்ததிகாரம் – விருத்தி உரை, சோம இளவரசு, மணிவாசகர் பதிப்பகம், 2017.

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நன்னூல் – எழுத்ததிகாரம் – விருத்தி உரை, ச. திருஞான சம்பந்தம், கதிர் பதிப்பகம், 2018.

இணையதளங்கள்:

www.tamilvu.org,

<http://ta.m.wikisource.org>

பாடத்திட்டம்

அலகு	பாடப்பகுதி	மணி	முறை
அ) பாயிரவியல்	1. சிறப்புப் பாயிரம் 2. பொதுப் பாயிரம் 3. ஆசிரியர் இலக்கணம் 4. மாணவர் இலக்கணம்	3 3 3 3	விவரிப்பு PPT
ஆ) எழுத்தியல்	1. முதல் எழுத்து, சார்பெழுத்து 2. மொழி முதல், மொழி இறுதி 3. எழுத்துக்களின் பிறப்பு 4. மாத்திரைகள்	3 3 3 3	PPT வாசிப்பு
இ) பதவியல்	1. மெய்மயக்கம் 2. பகுபதம் 3. பகாப்பதம் 4. சொல் உறுப்புக்கள்	3 3 3 3	PPT வாசிப்பு
ஈ) உயிரீற்றுப் புணரியல்	1. அ, ஆ, இ, ஈகாரப் புணர்ச்சி 2. உ, ஊகாரப் புணர்ச்சி 3. எ, ஏகார, ஐகாரப் புணர்ச்சி 4. ஒ, ஓ, ஔகாரப் புணர்ச்சி	3 3 3 3	PPT வாசிப்பு
உ) மெய்யீற்றுப் புணரியல், உருபு புணரியல்	1. வல்லின ஈற்றுப் புணர்ச்சி 2. மெல்லின ஈற்றுப் புணர்ச்சி 3. இடையின ஈற்றுப் புணர்ச்சி 4. உருபு புணர்ச்சி	3 3 3 3	PPT வாசிப்பு

DEPARTMENT OF TAMIL				CLASS: I B.A. Tamil				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
I		20U2TAC1	தமிழக வரலாறும் பண்பாடும்	5	6	25	75	100

CO	கற்றலின் நோக்கம்	Knowledge level
CO1	சங்ககால மக்களின் வரலாற்றையும், மக்கள் இயற்கையுடன் கொண்ட சார்புகளையும் மாணவர்களுக்கு எடுத்துரைத்தல்	K1, K2
CO2	மன்னர் வாழ்வியலில் அரசியல், பொருளாதார வழி சமுதாயத்தில் ஏற்பட்ட இன்பதுன்பங்களை விளக்குதல்.	K2
CO3	தமிழக வரலாற்றின் கலைப்பணிகளின் தோற்றத்தையும் மாற்றத்தையும் உணர்த்துதல்	K1, K2
CO4	மன்னர்களின் கலைப்பணி வாயிலாக வளர்ச்சிப் பின்புலம் அறிதல்	K3
CO5	தமிழ்பயிலும் மாணவர்கள் போட்டித்தேர்வுகளை வெற்றி பெறுவதற்குத் தற்காலத் தமிழக வரலாறுகளை எடுத்துரைத்தல்.	K4

Mapping of COs with PSOs					
	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO 1	1	1	1	1	1
CO 2		3	3	2	
CO 3	2	2			
CO 4			3	3	
CO 5		3			3

3. மிகு இணைவு 2. சிறு இணைவு 1. குறு இணைவு

பாடத்திட்டம்

கூறு - 1

சங்ககாலத்திற்கு முற்பட்ட தமிழகம், சங்ககால வரலாற்றினை அறிய உதவும் சான்றுகள். தமிழகத்தின் இயற்கையமைப்பு- புதைபொருள் ஆய்வுகள், குமரிக்கண்டம் - சிந்துசமவெளி மக்களுடன் கொண்ட தொடர்பு, அயல்நாடுகளுடன் கொண்ட வாணிகத்தொடர்பு

கூறு-2

சங்ககாலத்திற்கு முதல் பல்லவர் காலம்வரை (முழுமையும்) முச்சங்கவரலாறு, சங்ககால அரசியல் நிலை, சங்ககாலச் சமுதாயநிலை, சமயநிலை, போர்முறை, கலைகள் பல்லவர்காலம், பொருளாதார நிலை, அரசியல், கலைகளின் வளர்ச்சி, சமயம் கல்விவளர்ச்சி நிலை.

கூறு- 3

சோழர் - பாண்டியர்காலம் சோழப்பேரரசின் தோற்றம், ஊராட்சிநிலை அரசியல் சமுதாய, சமயநிலை கலைப்பணிகள், கோயில் பணிகளின் வளர்ச்சி, பாண்டியர்களின் பொருளாதார கல்வி கலைவளர்ச்சி

கூறு- 4

நாயக்கர் காலம் விஜயநகரத் தோற்றம், நாயக்க மன்னர்களின், சமுதாயநிலை கலைகளின் வளர்ச்சி கோயில்பணி

கூறு-5

ஆங்கிலேயர் ஆட்சிகாலம் முதல் தற்காலம் வரை ஆங்கிலேயர் ஆட்சி விடுதலைப் போரில் தமிழகத்தின் பங்கு விடுதலைக்குப்பின் தற்காலம் வரை வளர்ச்சி நிலை.

பாடநூல்

தமிழக வரலாறும் பண்பாடும், ஆ.இராமகிருட்டிணன், 2017, சர்வோதய இலக்கியப்பண்ணை, மதுரை

பார்வை நூல்கள்

1. தமிழ்நாட்டு வரலாறு - தமிழ் வளர்ச்சித் துறை சென்னை
2. பல்லவர் வரலாறு - மா.இராசமாணிக்கனார், மீனாட்சி புத்தக நிலையம் மதுரை - 1
3. சோழர் வரலாறு 1, 2 - நீலகண்ட சாஸ்திரி, மதுரை
4. தமிழ்நாட்டு வரலாறு - மா.இராசமாணிக்கனார், காவ்யா பதிப்பகம், சென்னை.

இணையதளங்கள்:

www.tamilvu.org, <http://ta.m.wikisource.org>

பாடத்திட்டம்

அலகு	பாடப்பகுதி	மணி	முறை
அ)தொல்பொருள் ஆய்வுகள்	1. இந்தியத் தொல்பொருள் ஆய்வுகள்	4	விவரிப்பு
	2. தமிழகத் தொல்பொருள் ஆய்வுகள்	4	PPT
	3. இந்திய நிலவியல் - எல்லை	3	
	4. தமிழக நிலவியல் -எல்லை	4	
ஆ) சங்கம் முதல் பல்லவர் காலம் வரை	1. முச்சங்க வரலாறு	4	PPT
	2. சங்ககால நிலை	4	வாசிப்பு
	3. பல்லவர் கால நிலை	3	
	4. கலை வளர்ச்சி	4	
இ)சோழர், பாண்டியர் காலம்	1. சோழர் தோற்றம் வளர்ச்சி	4	PPT
	2. பாண்டியர் தோற்றம் வளர்ச்சி	4	வாசிப்பு
	3. கோயில் பணிகள் வளர்ச்சி	3	
	4. கலை வளர்ச்சி	4	
ஈ)நாயக்கர் காலம்	1. விஜயநகரத் தோற்றம்	4	PPT
	2. சமுதாய நிலை	4	வாசிப்பு
	3. பொருளாதார நிலை	3	
	4. கலை வளர்ச்சி	4	
உ) தற்காலம்	1. ஆங்கிலேயர் ஆட்சி	2	PPT
	2. விடுதலைப் போராட்டம்	6	வாசிப்பு
	3. விடுதலைக்குப் பின்	2	
	4. தற்காலம்	5	

DEPARTMENT OF TAMIL				CLASS: I B.A. Tamil				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
II	MCT3	20U2TMC3	அற இலக்கியம்	4	5	25	75	100

CO	கற்றலின் நோக்கம்	Knowledge level
CO1	அறஇலக்கியம் தோன்றிய காலத்தை அறிந்து கொள்ளுதல்	K1, K2
CO2	மாணவர்களுக்கு ஒழுக்கம், நற்பண்பு ஆகியவற்றை இலக்கியங்கள் வாயிலாக போதித்தல்	K2
CO3	தமிழ் அற இலக்கியக் கருத்துக்களையும் அறம் கூறும் உண்மைகளையும் உணர்த்துதல்	K1, K2
CO4	மாணவர்களுக்கு தமிழ் மொழியின் மரபினை அற இலக்கிய வழி உணர்த்துதல்	K3
CO5	பாடலின் மொழி அமைப்பு, யாப்பு அமைப்பினை அறிதல்	K3

3. மிகு இணைவு 2. சிறு இணைவு 1. குறு இணைவு

Mapping of COs with PSOs					
	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO 1	1	1	1	1	1
CO 2		2	2		
CO 3				2	
CO 4		3			
CO 5		3			3

பாடத்திட்டம்

கூறு -1 திருக்குறள்

1. அறத்துப்பால் (4 அதிகாரம்)
அதிகாரஎண்கள் 2 முதல் 5 வரை
2. பொருட்பால் (4 அதிகாரங்கள்)
அதிகாரஎண்கள் 40 முதல் 44 வரை
3. இன்பத்துப்பால் (4 அதிகாரங்கள்)
அதிகார எண்கள் 112 முதல் 115 வரை

கூறு 2 நாலடியார்

நட்பாராய்தல் – முதல் 5 பாடல்கள்

நான்மணிக்கடிகை – 4 பாடல்கள்

1. கள்ளி வயிற்றின் அகில் பிறக்கும் – பாடல் 6
2. கோல் நொக்கி வாழும் குடியெல்லாந்தாய் – பாடல் 29
3. நாற்ற முரைக்கும் மலருண்மை கூறி – பாடல் 48
4. கண்ணிற சிறந்த உறுப்பில்லை – பாடல் 57

கூறு 3 இன்னா நாற்பது – 4 பாடல்கள்

1. கொடுங்கோல் மறமன்னர் கீழ் வாழ்தலின்னா – பாடல் 3
2. எருதி லுழவர்க்குப் போகிர மின்னா – பாடல் 4
3. அறமனத்தார் கூறுங் கடுமொழிவு மின்னா – பாடல் 6
4. ஆற்றலிலாதான் பிடித்த படையின்னா – பாடல் 7

திரிகடுகம் – 4 பாடல்கள்

1. தன்னை வியந்து தருக்கலுந் – பாடல் 38
2. வைதனை இன் சொல்லாக் கொள்வானும் – பாடல் 48
3. ஏவாது மாற்றும் இளங்கிளையும் காவாது – பாடல் 49
4. பழமையை நோக்கி அளித்தல் – பாடல் 58

ஆசாரக்கோவை – 4 பாடல்கள்

1. வைகறை யாமம் துயில் எழுந்து
2. பிறப்பு நெடுவாழ்க்கை
3. முறுவல், இனிதுரை, கால்நீர்
4. அளை உறை பாம்பும், அரசும், நெருப்பும்

கூறு 4 பழமொழி நானூறு – 4 பாடல்கள்

சான்றோரியல்பு 70 பாடல் முதல் 74 பாடல் வரை

சிறுபஞ்சமூலம் – 4 பாடல்கள்

1. நாணிலான் சால்பும் - பாடல் 12
2. பிழைத்தல் பொறுத்தல் – பாடல் 16
3. கதநன்று சான்றாண்மை – பாடல் 17
4. நட்டாரை யாக்கிப் – பாடல் 18

ஏலாதி – 5 பாடல்கள்

1. பிணிபிறப்பு மூப்பொடு – பாடல் 24
2. பாடகஞ் சாரமை பாத்திலர் – பாடல் 25

3. மாண்டைமைந்தாராய்ந்த மதிவனப்பே – பாடல் 26
4. அஃகு தீ செய்ய லெனவறிஞ் – பாடல் 27

கூறு -5

சித்தர் பாடல்கள் – 3 பாடல்கள்

1. சிவ வாக்கியர் – ஓடிஓடி உட்கலந்த
2. திருமூலர் – அன்பும் சிவமும் இரண்டென்பர்
3. கடுவெளிசித்தர் – நந்தவனத்தில்
ஒளவையார்- மூதுரை (10)

பாடநூல்கள்

1. நாலடியார் மூலமும் உரையும் – பதிப்புக்குழு 6 ஆம்பதிப்பு –ஜீன் – 2013, சாரதா பதிப்பகம், மதுரை
2. நான்மணிக்கடிகை மூலமும் உரையும் – பதிப்புக்குழு 7 ஆம்பதிப்பு – 2014, சாரதா பதிப்பகம், மதுரை
3. இனியவை நாற்பது இன்னா நாற்பது மூலமும் உரையும் – ந.மு.வேங்கடசாமி நாட்டார் உரை, 9 ஆம் பதிப்பு- 2015
4. திரிகடுகம் மூலமும் உரையும் – ஆசிரியர் குழு, 10 ஆம் பதிப்பு -2017
5. நீதி இலக்கியத்தெளிவு, முனைவர்.கா.வாகதேவன், முனைவர்.வ.நாராயணநம்பி, முனைவர் மு.அருணாசலம், சிவகுரு திப்பகம், முதற்பதிப்பு- மார்ச் 2006
6. பழமொழி நானூறு மூலமும் - பதிப்பகக் குழு, 12ஆம் பதிப்பு – 2016, சாரதா பதிப்பகம், மதுரை
7. சிறுபஞ்சமூலம் மூலமும் உரையும் - பதிப்புக்குழு 12 ஆம்பதிப்பு – 2014, சாரதா பதிப்பகம், மதுரை
8. ஏலாதி –ஆசிரியர் குழு 9ஆம்பதிப்பு – 2014, சாரதா பதிப்பகம், மதுரை

பார்வைநூல்கள்

திருக்குறள் – பரிமேலழகர் உரை 2007, புதியபதிப்பு, திருநெல்வேலித் தென்னிந்திய சைவ சித்தாந்த நூற்பதிப்புக்கழகம், சென்னை

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பாடத்திட்டம்

அலகு	பாடப்பகுதி	மணி	முறை
அ) திருக்குறள்	1. அறத்துப்பால்	5	விவரிப்பு
	2. பொருட்பால்	5	PPT
	3. இன்பத்துப்பால்	5	
ஆ)நாலடியார், நான்மணிக் கடிகை	1. நாலடியார்	8	PPT
	2. நான்மணிக்கடிகை	7	வாசிப்பு
இ)இன்னா நாற்பது, திரிகடுகம், ஆசாரக்கோவை	1. இன்னா நாற்பது	5	PPT
	2. திரிகடுகம்	5	வாசிப்பு
	3. ஆசாரக்கோவை	5	
ஈ)பழமொழி நானூறு, சிறுபஞ்சமூலம் ஏலாதி	1. பழமொழி நானூறு	4	PPT
	2. சிறுபஞ்சமூலம்	4	வாசிப்பு
	3. ஏலாதி	4	
	4. கலை வளர்ச்சி	3	
உ)சித்தர் பாடல்கள்	1. சித்தர் பாடல்கள்	15	PPT வாசிப்பு

DEPARTMENT OF TAMIL				CLASS: I B.A. Tamil				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
II	MCT4	20U2TMC4	நன்னூல் - சொல்லதிகாரம்	4	4	25	75	100

CO	உள்ளடக்கம்	Knowledge level
CO 1	பெயர்ச்சொற்கள் : வரையறை; இருதிணை, ஐம்பால், மூவிடப் பெயர்கள்; பெயர்ச் சொற்களின் வகை: நால்வகைச் சொற்கள், ஆகுபெயர்; வழக்கு: இயல்பு வழக்கு, தகுதி வழக்கு	K1, K2
CO 2	வேற்றுமை: வரையறை; எட்டு வேற்றுமைகள், உருபிலிகள், உருபுகள், உருபுகள் ஏற்று வரும் பொருட்கள், உருபுகள் கொள்ளும் முடிவுகள், வேற்றுமை மயக்கம்	K1, K2
CO 3	வினைச்சொற்கள்: வரையறை; வினைச் சொற்களின் வகைகள்: முற்று வினைகள், எச்ச வினைகள், எதிர்மறை வினைகள்; வாய்பாட்டு வினைச் சொற்கள்: செய்யா, செய்யும் போன்ற வாய்பாட்டு வினைச் சொற்கள்; வினைச் சொற்களின் முடிவு: அடுக்கி வரும் வினைச் சொற்களின் முடிவு, அடுக்கி வரும் வேற்றுமைகளின் முடிவு	K1, K2
CO 4	தொடர்கள்: தொகைநிலைத் தொடர்கள், தொகாநிலைத் தொடர்கள்; வழு : வழு, வழுவமைதி; அறுவகை வினாக்கள், எண் வகை விடைகள்	K3
CO 5	பொருள்கோள்: பொருள்கோளின் வகைகள்; இடைச்சொற்கள்: வரையறை, வகை, பொருள்; உரிச்சொற்கள்: வரையறை, வகை, பொருள்.	K3

Mapping of COs with PSOs					
	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO 1	3				1
CO 2	3				
CO 3	2		3		
CO 4			3		
CO 5		3		1	

3. மிகு இணைவு 2. சிறு இணைவு 1. குறு இணைவு

பாடத்திட்டம்

- கூறு 1: பெயரியல் (1 முதல் 34 நூற்பாக்கள் வரை)
கூறு 2: பெயரியல்: வேற்றுமைகள் (35 முதல் 62 நூற்பாக்கள் வரை)
கூறு 3: வினையியல், பொதுவியல் (1 முதல் 9 நூற்பாக்கள் வரை)
கூறு 4: பொதுவியல் (10 முதல் 60 நூற்பாக்கள் வரை)
கூறு 5: பொதுவியல் (பொருள்கோள்), இடையியல், உரியியல்

பாடநூல்

1. நன்னூல் – சொல்லதிகாரம் – காண்டிகை உரை, ஆறுமுக நாவலர், மணிவாசகர் பதிப்பகம், 2019

பார்வை நூல்

1. நன்னூல் – சொல்லதிகாரம் – விருத்தி உரை, சோம இளவரசு, மணிவாசகர் பதிப்பகம், 2018.
2. நன்னூல் – சொல்லதிகாரம் – விருத்தி உரை, தமிழண்ணல் மீனாட்சி புத்தக நிலையம், 2019.
3. நன்னூல் – சொல்லதிகாரம் – விருத்தி உரை, ச. திருஞான சம்பந்தம் கதிர் பதிப்பகம், 2017.

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பாடத்திட்டம்

அலகு	பாடப்பகுதி	மணி	முறை
அ) பெயரியல்	1. உயர்திணைப் பெயர்கள் 2. அஃறிணைப் பெயர்கள் 3. விரவுப் பெயர்கள் 4. ஆகுபெயர்கள்	3 3 3 3	PPT வாசிப்பு
ஆ) வேற்றுமைகள்	1. எழுவாய், விளி வேற்றுமை 2. 2, 3, 4 - வேற்றுமைகள் 3. 5, 6, 7 - வேற்றுமைகள் 4. வேற்றுமை மயக்கம்	3 3 3 3	PPT வாசிப்பு
இ) வினையியல்	1. தெரிநிலை, குறிப்பு 2. எச்சம் 3. வினைமுற்று விகுதிகள்	4 4 4	PPT வாசிப்பு
ஈ) பொதுவியல்	1. வினா, விடை 2. வழு 3. வழக்கு 4. பெயர், சினை, அடை	3 3 3 3	PPT வாசிப்பு
உ) இடையியல், உரியியல்	1. பொருள்கோள் 2. இடைச்சொல்லும் பொருளும் 3. உரியும் பொருளும்	4 4 4	PPT வாசிப்பு

DEPARTMENT OF TAMIL				CLASS: I B.A. Tamil				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
II		20U2TAC2	சிற்றிலக்கியம்	5	6	25	75	100

CO	கற்றலின் நோக்கம்	Knowledge level
CO1	சிற்றிலக்கியங்களின் காலம் அமைப்புமுறைகளைக் கற்பித்தல்;	K1, K2
CO2	சிற்றிலக்கியக் கால அரசர் வாழ்வியல் சமுதாயநிலை போன்றவற்றைக் கூறி உளவியல் ரீதியாக மாணவர்களின் மனதை வளமாக்குவது.	K2, K3
CO3	இயற்கையின் சிறப்பினை உணர்த்தி மாணவர்களின் வாழ்வியலை முன்னேற்றுவதல்	K1, K2
CO4	சிற்றிலக்கியங்களின் சிறப்பைக்கூறி தமிழ் இலக்கிய ஆர்வத்தைத் தூண்டுதல்;	K3
CO5	சிற்றிலக்கியங்களின் சுவையை மாணவர்களிடம் மெருகேற்றி வளம் பெறச்செய்தல்.	K3, K4

Mapping of COs with PSOs

	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	1	1	1	1	1
CO2		2		2	
CO3		2	3	3	
CO4			3		3
CO5	3			4	4

3. மிகு இணைவு 2. சிறு இணைவு 1. குறு இணைவு

பாடத்திட்டம்

கூறு -1 முத்தொள்ளாயிரம்

1. சேரன் முதல் 9 பாடல்கள்
2. சோழன் 24 பாடல் 36 ஆம் பாடல் வரை – 13 பாடல்கள்
3. பாண்டியன் – 11 பாடல்கள் (தேர்ந்தெடுக்கப்பட்ட பாடல்கள்)
(1. மடங்கா... 2. நந்தினிளஞ்சினை... 3. மைந்தரோ... 4. நேமிநிமிர்... நிறைமதி...
6. செருவெங்... 7. நிரைகதிர்வேல்... 8. மருப்பசி... 9. உருவத்தார்... 10. தோற்றமலை...)

கூறு -2

1. குற்றாலக்குறவஞ்சி – நாட்டுவளம் கூறுதல் 3 முதல் 9 வரை
2. கலிங்கத்துப்பரணி – இந்திரஜாலம் 154 முதல் 178

கூறு -3

அழகர் கிள்ளை விடுதூது முழுவதும்

கூறு -4

மதுரை மீனாட்சியம்மை பிள்ளைத்தமிழ் – தாலப்பருவம் 23ம்
பாடல் முதல் 32ம் பாடல் வரை

கூறு -5

முக்கூடற்பள்ளு

1. மழைக்குறி முதல் மருதநிலத்தில் வெள்ளம் வரை
2. விளைவு! மகிழ்வு!
 1. நாள் பார்த்தல் 15 பாடல்கள்
 2. குறத்தி திருத்தினாள் 15 பாடல்கள்

பாடநூல்கள்

1. சிற்றிலக்கியங்கள் – நாஞ்சில் நாடன், தமிழினி பதிப்பகம், சென்னை 2013
2. முத்தொள்ளாயிரம் – மாணிக்கவாசகன், உமா பதிப்பகம், சென்னை 2018
3. குற்றாலக்குறவஞ்சி - மாணிக்கவாசகன், உமா பதிப்பகம், சென்னை 2017
4. அழகர் கிள்ளைவிடு தூது – சுதிர் முருகு, சாரதா பதிப்பகம், சென்னை 2018
5. மீனாட்சியம்மைபிள்ளைத்தமிழ் – டாக்டர். உலகநாதன், முல்லை நிலையம் 2013
6. முக்கூடற்பள்ளு – கவிஞர் இளமுருகு, சாரதா பதிப்பகம், சென்னை 2018

பார்வை நூல்கள்

1. சண்முகம் பிள்ளை.மு. சிற்றிலக்கிய வளர்ச்சி, மணிவாசகர் பதிப்பகம், சிதம்பரம்
2. செயராமன்.ந.வீ. சிற்றிலக்கியச் செல்வங்கள், மணிவாசகர் பதிப்பகம், சிதம்பரம்.

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பாடத்திட்டம்

அலகு	பாடப்பகுதி	மணி	முறை
அ) முத்தொள்ளாயிரம்	1. சேரன்	5	PPT
	2. சோழன்	5	வாசிப்பு
	3. பாண்டியன்	5	
ஆ) குறும், பரணி	1. குற்றாலக்குறவஞ்சி	8	PPT
	2. கலிங்கத்துப் பரணி	7	வாசிப்பு
இ) தூது	1. அழகர் கிள்ளை விடுதூது அறிமுகம்	5	PPT
	2. நூல் கட்டமைப்பு	5	வாசிப்பு
	3. மாந்தர் சித்திரிப்பு	5	
ஈ) பிள்ளைத் தமிழ்	1. மீனாட்சி அம்மைப் பிள்ளைத் தமிழ் - அறிமுகம்	5	PPT
	2. நூல் கட்டமைப்பு	5	வாசிப்பு
	3. தமிழின் சிறப்பு	5	
உ) பள்ளு	1. முக்கூடல் பள்ளு அறிமுகம்	5	PPT
	2. நாள் பார்த்தல்	5	வாசிப்பு
	3. குறத்தி திருத்தினாள்	5	

Department of Hindi

Revised Curriculum
(Choice Based Credit system with Outcome Based Education)
Academic Year 2020-2021 onwards



THE MADURA COLLEGE (AUTONOMOUS)
DEPARTMENT OF HINDI

Vision of the Department:

- To impart hindi as Part – 1 language and spread Hindi all over Madurai which would help student to read, write and speak in Hindi.

Mission of the Department :

- The second vision is to start M.A. Hindi and Diploma in Hindi translation

The programme learning outcomes

The student graduating with the UG degree should be able to:

PO-1: Use modern tools, resources and software as deemed required.

PO-2: Discharge their duties as responsible citizens coexisting in a society and exhibit environmental consciousness in their day to day activities

PO-3: Uphold Professional ethics and exhibit scientific temper in their profession and daily life.

PO-4: Function effectively both in individual capacity and as a team.

PO-5: Effectively communicate his knowledge, understanding in his area of expertise in written / oral / artistic forms and be knowledge emancipators.

PO-6: Self-learn from various resources including web resources, MOOC courses and be life-long learners contributing to knowledge society.



THE MADURA COLLEGE (AUTONOMOUS)

Department of Hindi

PART I Hindi

SEMESTER	STUDY COMPONENTS	SUBJECT CODE	TITLE OF THE PAPER	HOURS	CREDIT		
I	Tamil	20U1HLA1	Hindi 1	6	3		
	English			6	3		
	Economics			6	3		
	Maths			6	3		
	Botany			6	3		
	Chemistry			6	3		
	Physics			6	3		
	Zoology			6	3		
	Bio technology			6	3		
	Microbiology			6	3		
	Computer Science			6	3		
	Information Technology			6	3		
	B Com (General)			20U1HKL1	Hindi 1	3	1
	B Com (Professional Accounting)					3	1
B Com (Banking & Insurance)	3	1					
B Com (Corporate Markets)	3	1					
II	Tamil	20U2HLA2	Hindi 2	6	3		
	English			6	3		
	Economics			6	3		
	Maths			6	3		
	Botany			6	3		
	Chemistry			6	3		
	Physics			6	3		
	Zoology			6	3		
	Bio technology			6	3		
	Microbiology			6	3		
	Computer Science			6	3		
	Information Technology			6	3		
	B Com (General)			20U2HKL2	Hindi 2	3	1
	B Com (Professional Accounting)					3	1
	B Com (Banking & Insurance)					3	1
	B Com (Corporate Markets)					3	1

III	Tamil	20U3HLA3	Hindi 3	6	3
	English			6	3
	Economics			6	3
	Maths			6	3
	Botany			6	3
	English			6	3
	Chemistry			6	3
	Physics			6	3
	Zoology			6	3
	Bio technology			6	3
	Microbiology			6	3
	Computer Science			6	3
	Information Technology			6	3
IV	Tamil	20U4HLA4	Hindi 4	6	3
	English			6	3
	Economics			6	3
	Maths			6	3
	Botany			6	3
	Chemistry			6	3
	Physics			6	3
	Zoology			6	3
	Bio technology			6	3
	Microbiology			6	3
	Computer Science			6	3
	Information Technology			6	3

<i>DEPARTMENT OF HINDI</i>				<i>CLASS: I B.A. / B.Sc.</i>				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
I	Part 1	20U1HLA1	Hindi 1	3	6	25	75	100

Course Objectives:

COs	Course Objectives:
CO1	The basic objective is to see that the students have knowledge of Hindi which would help them in future.
CO2	Vowels, consonants and some basic translations would help the students to have a glimpse of Hindi.
CO3	Students who have wrong notion about the language would gain confidence and thus they start learning the language effectively.
CO4	The main objective is to see that the students should learn about singular, plural, gender and numbers in Hindi.
CO5	If the objective is fulfilled, the student would be able to write, read and speak Hindi to a certain extent which would be a shot in the arm for the teacher

UNIT	CONTENT	HOURS
Unit 1	Vowel, consonants, gender, singular, plural, umbers 1-100	18
Unit 2	Use in sentence, prose, choose the right answer	18
Unit 3	Translations 1-25, correct the sentence, one line question from prose	18
Unit 4	Five line questions from prose, synonyms	18
Unit 5	One line question (general), name of seasons and direction	18

Prescribed text books:

1. KM Chandramohan, Hindi Vatayan, Sourashtra College, Mdu
2. Hindi Parichai, DB Hindi Prachar Sabha
3. Pratam Darshan, DB Hindi Prachar sabha
4. Pratam Kiran, DB Hindi Prachar Sabha

Website reference:

<https://www.17-minute-languages.com/en/learn-hindi/>

Pedagogy

Chalk and talk, PPT, Group discussion, puzzle, crossword.

Course Learning Outcomes:

CLOs	CLO Statement	Knowledge level
CLO1	Use of singular, plural and numbers	K3
CLO2	Use of sentences and choosing the right answer	K3
CLO3	Able to translate and correct the sentences	K2
CLO4	Able to write answers questions from prose	K2
CLO5	Able to identify directions and seasons	K1

Mapping with Programme Outcomes

CLOs	PO1	PO2	PO3	PO4	PO5	PO6
CLO1	-	2	1	2	3	-
CLO2	-	-	1	2	3	-
CLO3	-	-	1	2	3	-
CLO4	-	-	1	2	3	-
CLO5	-	-	1	2	3	-

3- Advance application; 2- Intermediate level; 1- Basic level

Blue Print

Mapping with Courses Learning Outcomes (CLOs)

Units	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO1	Up to K 3	2	K1or K2	1	K1or K2	2 (K2&K2)	1(K3)
2	CLO2	Up to K 3	2	K1or K2	1	K1or K2	2 (K3&K3)	1(K3)
3	CLO3	Up to K 2	2	K1or K2	1	K1or K2	2 (K2&K2)	1(K2)
4	CLO4	Up to K 2	2	K1or K2	1	K1or K2	2 (K2&K2)	1(K2)
5	CLO5	Up to K 1	2	K1or K2	1	K1or K2	2 (K1&K1)	1(K1)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (Short Answer)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	5	4	10	10	29	24.16	24
K2	5	6	30	20	61	50.84	51
K3	-		10	20	30	25.00	25
K4	-		-	-	-	-	-
Total Marks	10	10	50	50	120	100.00	100%

<i>DEPARTMENT OF HINDI</i>				<i>CLASS: I B.A. / B.Sc.</i>				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
II	Part 1	20U2HLA2	Hindi 2	3	6	25	75	100

Course Objectives:

COs	Course Objectives:
CO1	The course is designed to expose the language skills of the students.
CO2	The students will be able to write a story of his own with his imagination.
CO3	The main objective is to make the student draft a letter of his own which would be very useful.
CO4	The student will be able to answer the questions after reading a passage which would develop his reading and writing ability
CO5	After achieving these objectives, the student would be given a task to write an essay.
CO6	This would test his ability with regard to his learning capacity. The student would have the ability to read a passage and answer the questions

UNIT	CONTENT	HOURS
Unit 1	Mazedaar kahaniyaa(1-5), letter writing applying for a post, leave letter, insurance claim, congratulating a friend, ordering of books)	18
Unit 2	Mazedaar kahaniyaa(6-10), idioms and phrases(1-25), proverbs meaning(1-10)	18
Unit 3	Saptha rathna(1-5), comprehension with five questions	18
Unit 4	Essay writing(computer, madurai, deepavali, nari siksha, gram jeevan)	18
Unit 5	Use in sentence of proverbs, name of days, classical tamil	18

Text book reference:

Km chandra mohan, Hindi Vatayan Sourashtra college
Saptha rathna, DB Hindi pracha sabha

Website reference

<https://www.successeds.net/Class10/hindi/formal-letter-hindi.html>

<https://www.hindivibhag.com/hindi-short-stories/>

Pedagogy

Chalk and talk, PPT, Group discussion, puzzle, crossword.

Course Learning Outcomes:

CLOs	CLO Statement	Knowledge level
CLO 1	Write stories and draft letter	K3
CLO 2	Use of proverbs and phrases in communication	K3
CLO 3	Learning morals from great Indian leaders	K2
CLO 4	Writing essays with creativity	K3
CLO 5	Using proverbs in speech and having knowledge of days in Hindi	K3

Mapping with Programme Outcomes

	PO1	PO2	PO3	PO4	PO5	PO6
CLO1	1	2	1	3	3	-
CLO2	2	-	-	3	3	-
CLO3	1	3	3	3	3	-
CLO4	1	2	1	3	3	-
CLO5	-	-	-	3	3	-

3- Advance application; 2- Intermediate level; 1- Basic level

Blue Print

Mapping with Courses Learning Outcomes (CLOs)

Units	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO1	Up to K 3	2	K1or K2	1	K1or K2	2 (K2&K2)	1(K3)
2	CLO2	Up to K 3	2	K1or K2	1	K1or K2	2 (K3&K3)	1(K3)
3	CLO3	Up to K 2	2	K1or K2	1	K1or K2	2 (K2&K2)	1(K2)
4	CLO4	Up to K 3	2	K1or K2	1	K1or K2	2 (K2&K2)	1(K3)
5	CLO5	Up to K 3	2	K1or K2	1	K1or K2	2 (K1&K1)	1(K1)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (Short Answer)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	5	4	10	10	29	24.16	25
K2	5	6	30	10	51	42.5	42
K3	-		10	30	40	33.33	33
K4	-		-	-	-	-	-
Total Marks	10	10	50	50	120	100.00	100%

DEPARTMENT OF HINDI				CLASS: I B.Com (General, PA, B&I, CM)				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
I	Part 1	20U1HKL1	Hindi 1	1	3	25	75	100

Course Objectives:

Course Objectives:
The basic objective is to see that the students have knowledge of Hindi which would help them in future.
Vowels, consonants and some basic translations would help the students to have a glimpse of Hindi.
Students who have wrong notion about the language would gain confidence and thus they start learning the language effectively.
The main objective is to see that the students should learn about gender in Hindi.
If the objective is fulfilled, the student would be able to write, read and speak Hindi to a certain extent which would be a shot in the arm for the teacher

UNIT	CONTENT	HOURS
Unit 1	Vowel, consonants, gender,	9
Unit 2	Use in sentence, choose the right answer	9
Unit 3	Translations 1-25, correct the sentence,	9
Unit 4	Synonyms	9
Unit 5	Name of seasons and direction	9

Prescribed text books:

1. KM Chandramohan, Hindi Vatayan, Sourashtra College, Mdu
2. Hindi Parichai, DB Hindi Prachar Sabha
3. Pratam Darshan, DB Hindi Prachar sabha
4. Pratam Kiran, DB Hindi Prachar Sabha

Website reference:

<https://www.17-minute-languages.com/en/learn-hindi/>

Pedagogy

Chalk and talk, PPT, Group discussion, puzzle, crossword.

Course Learning Outcomes:

CLOs	CO Statement	Knowledge level
CLO1	Use of Vowel, consonants, gender.	UPTO K3
CLO2	Use of sentences and choosing the right answer	UPTO K3
CLO3	Able to translate and correct the sentences	UPTO K2
CLO4	Able to write synonyms of the given words	UPTO K2
CLO5	Able to identify directions and seasons	UPTO K1

Mapping with Programme Outcomes

CLOs	PO1	PO2	PO3	PO4	PO5	PO6
CLO1	-	2	1	2	3	-
CLO2	-	-	1	2	3	-
CLO3	-	-	1	2	3	-
CLO4	-	-	1	2	3	-
CLO5	-	-	1	2	3	-

3- Advance application; 2- Intermediate level; 1- Basic level

Blue Print

Mapping with Courses Learning Outcomes (CLOs)

Units	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO1	Up to K 3	2	K1or K2	1	K1or K2	2 (K2&K2)	1(K3)
2	CLO2	Up to K 3	2	K1or K2	1	K1or K2	2 (K3&K3)	1(K3)
3	CLO3	Up to K 2	2	K1or K2	1	K1or K2	2 (K2&K2)	1(K2)
4	CLO4	Up to K 2	2	K1or K2	1	K1or K2	2 (K2&K2)	1(K2)
5	CLO5	Up to K 1	2	K1or K2	1	K1or K2	2 (K1&K1)	1(K1)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (Short Answer)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	5	4	10	10	29	24.14	25
K2	5	6	30	20	61	50.84	50
K3	-		10	20	30	25.00	25
K4	-		-	-	-	-	-
Total Marks	10	10	50	50	120	100.00	100%

<i>DEPARTMENT OF HINDI</i>				<i>CLASS: I B.Com (General, PA, B&I, CM)</i>				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
II	Part 1	20U2HKL2	Hindi 2	1	3	25	75	100

Course Objectives:

Course Objectives:
The basic objective is to see that the students have knowledge of Hindi which would help them in future.
Recall Vowels, consonants and some basic translations would help the students to have a glimpse of Hindi.
Students who have wrong notion about the language would gain confidence and thus they start learning the language effectively.
The main objective is to see that the students should learn about singular, plural, gender and numbers in Hindi.
If the objective is fulfilled, the student would be able to write, read and speak Hindi to a certain extent which would be a shot in the arm for the teacher

UNIT	CONTENT	HOURS
Unit 1	Singular, plural, numbers 1-100	9
Unit 2	Prose	9
Unit 3	One line question from prose	9
Unit 4	Five line questions from prose,	9
Unit 5	One line question (general),	9

Prescribed text books:

1. KM Chandramohan, Hindi Vatayan, Sourashtra College, Mdu
2. Hindi Parichai, DB Hindi Prachar Sabha
3. Pratam Darshan, DB Hindi Prachar sabha
4. Pratam Kiran, DB Hindi Prachar Sabha

Website reference:

<https://www.17-minute-languages.com/en/learn-hindi/>

Pedagogy

Chalk and talk, PPT, Group discussion, puzzle, crossword.

Course Learning Outcomes:

CLOs	CO Statement	Knowledge level
CLO1	Use of singular, plural and numbers	UPTO K3
CLO2	Use of sentences and choosing the right answer	UPTO K3
CLO3	Able to translate and CLOrrect the sentences	UPTO K2
CLO4	Able to write answers questions from prose	UPTO K2
CLO5	Able to identify directions	UPTO K1

Mapping with Programme Outcomes

	PO1	PO2	PO3	PO4	PO5	PO6
CLO1	-	2	1	2	3	-
CLO2	-	-	1	2	3	-
CLO3	-	-	1	2	3	-
CLO4	-	-	1	2	3	-
CLO5	-	-	1	2	3	-

3- Advance application; 2- Intermediate level; 1- Basic level

Blue Print

Mapping with Courses Learning Outcomes (CLOs)

Units	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO1	Up to K 3	2	K1or K2	1	K1or K2	2 (K2&K2)	1(K3)
2	CLO2	Up to K 3	2	K1or K2	1	K1or K2	2 (K3&K3)	1(K3)
3	CLO3	Up to K 2	2	K1or K2	1	K1or K2	2 (K2&K2)	1(K2)
4	CLO4	Up to K 2	2	K1or K2	1	K1or K2	2 (K2&K2)	1(K2)
5	CLO5	Up to K 1	2	K1or K2	1	K1or K2	2 (K1&K1)	1(K1)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (Short Answer)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	5	4	10	10	29	24.16	25
K2	5	6	30	20	61	50.84	50
K3	-		10	20	30	25.00	25
K4	-		-	-	-	-	-
Total Marks	10	10	50	50	120	100.00	100%

Department of Sanskrit

**Revised Curriculum
(Choice Based Credit system with Outcome Based Education)
Academic Year 2020-2021 onwards**



THE MADURA COLLEGE (AUTONOMOUS)
Department of Sanskrit

Vision of the Department:

- To propagate Sanskrit to all students which would help them to read, write and speak in Sanskrit.

Mission of the Department:

- To impart Sanskrit as Part – 1 language and Introduce Sanskrit in Google Translation.
- To introduce new courses - Comparative study of Regional literature with Sanskrit Language, Spoken Sanskrit Courses – Basic, Intermediate and Advance Levels, Sanskrit Translation course.

Programme Outcomes for B.A. Graduates:

At the end of the programme the graduates will be able to

PO1	Integrate learned skills and knowledge derived from the study of the humanities and/or the arts and other related disciplines, acquiring the necessary depth and breadth required for a transdisciplinary perspective.
PO2	Demonstrate proficiency in using disciplinary-appropriate methods for research, critical analysis, creative work or professional performance.
PO3	Communicate conclusions, interpretations, and implications clearly, concisely, and effectively, both orally and in writing for different types of audiences.
PO4	Articulate and apply values, principles, ethics and ideals derived from an integrated understanding of their areas of study and demonstrate awareness of current societal and environmental challenges and ways of mitigating them.
PO5	Use modern tools, resources and software and be abreast with the emerging trends in their disciplinary area and practice lifelong learning.

Programme Outcomes for B.Sc. Graduates:

At the end of the programme the graduates will be able to

PO1	Integrate learned skills and knowledge derived from the study of the science and other related disciplines, acquiring the necessary depth and breadth required for a transdisciplinary perspective.
PO2	Demonstrate proficiency in using disciplinary-appropriate methods for research, critical analysis or creative work and provide scientific solutions to the problems of the society.
PO3	Communicate conclusions, interpretations, and implications clearly, concisely, and effectively, both orally and in writing for different types of audiences.
PO4	Articulate and apply values, principles, ethics and ideals derived from an integrated understanding of their areas of study and demonstrate awareness of current societal and environmental challenges and ways of mitigating them.
PO5	Use modern tools, resources and software and be abreast with the emerging trends in their disciplinary area and practice lifelong learning.



THE MADURA COLLEGE (AUTONOMOUS)
DEPARTMENT OF SANSKRIT

PART I Sanskrit

SEMESTER	STUDY COMPONENTS	SUBJECT CODE	TITLE OF THE PAPER	HOURS	CREDIT		
I	Tamil/Hindi/Sanskrit	20U1SLA1	Sanskrit I	6	3		
	English			6	3		
	Economics			6	3		
	Maths			6	3		
	Botany			6	3		
	Chemistry			6	3		
	Physics			6	3		
	Zoology			6	3		
	Bio technology			6	3		
	Microbiology			6	3		
	Computer Science			6	3		
	Information Technology			6	3		
	B Com (General)			20U1SKL1	Sanskrit for Commerce I	3	1
	B Com (Professional Accounting)					3	1
	B Com (Banking & Insurance)					3	1
B Com (Corporate Markets)	3	1					
II	Tamil/Hindi/Sanskrit	20U2SLA2	Sanskrit II	6	3		
	English			6	3		
	Economics			6	3		
	Maths			6	3		
	Botany			6	3		
	Chemistry			6	3		
	Physics			6	3		
	Zoology			6	3		
	Bio technology			6	3		
	Microbiology			6	3		
	Computer Science			6	3		
	Information Technology			6	3		
	B Com (General)			20U2SLK2	Sanskrit for CommerceII	3	1
	B Com (Professional Accounting)					3	1
	B Com (Banking & Insurance)					3	1
B Com (Corporate Markets)	3	1					

III	Tamil/Hindi/Sanskrit	20U3SLA3	Sanskrit III	6	3
	English			6	3
	Economics			6	3
	Maths			6	3
	Botany			6	3
	English			6	3
	Chemistry			6	3
	Physics			6	3
	Zoology			6	3
	Bio technology			6	3
	Microbiology			6	3
	Computer Science			6	3
	Information Technology			6	3
	IV			Tamil/Hindi/Sanskrit	20U4SLA4
English		6	3		
Economics		6	3		
Maths		6	3		
Botany		6	3		
Chemistry		6	3		
Physics		6	3		
Zoology		6	3		
Bio technology		6	3		
Microbiology		6	3		
Computer Science		6	3		
Information Technology		6	3		

<i>DEPARTMENT OF SANSKRIT</i>				<i>CLASS: I B.A. / B.Sc.</i>				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
I	Part 1	20U1SLA1	Sanskrit I	3	6	25	75	100

Course Objectives:

1. To Introduce Devanagari Script
2. To Familiarize with Male/Female/Neuter gender Words
3. To Make the students to understand the language in its right Grammatical form and the proper usage of Nouns & Verbs
4. To disseminate the Sanskrit Literature like Vedas, Vedangas and Epic Literature
5. To make the students to translate from Sanskrit to English in Present /Future Tense

Syllabus

Unit	<i>Sanskrit I</i>	Hours								
Unit 1	1. Fundamental Grammar: Vowels, Consonants, word formation, simple sentences 2. Declension of nouns: Rama, Sita, Phalam, Asmad, Yusmad. 3. History of Sanskrit literature: Introduction to the classifications of Indian Sanskrit Literature, Vedic period – Vedas - Date of Vedas	18								
Unit 2	1. Conjugation of Roots in i) Present (Lat) ii) Future (Lrit) <table border="1" style="margin-left: 40px;"> <tr> <td>Bhu (to be)</td> <td>Khel (to play)</td> </tr> <tr> <td>Patt (to read)</td> <td>Khad (to eat)</td> </tr> <tr> <td>Likh (to write)</td> <td>Drus (to see)</td> </tr> <tr> <td>Vad (to speak)</td> <td>Gam (to go)</td> </tr> </table> 2. History of Sanskrit literature: Sutra period – Vedangas and Post Vedic Sastras	Bhu (to be)	Khel (to play)	Patt (to read)	Khad (to eat)	Likh (to write)	Drus (to see)	Vad (to speak)	Gam (to go)	18
Bhu (to be)	Khel (to play)									
Patt (to read)	Khad (to eat)									
Likh (to write)	Drus (to see)									
Vad (to speak)	Gam (to go)									
Unit 3	1. Use in sentences: Asti, Nasti, Atra, Tatra, Anyatra, Sarvatra, kutra? Aavshyakam, Mastu, Paryaptam 2. Selected Ten slokas from Subhashitani 3. History of Sanskrit literature: Classical period - Ramayanam – Date, Origin and Development	18								
Unit 4	1. Sankya 1-50 in Sanskrit 2. History of Sanskrit literature: Classical period 3. Epic Literature, Mahabharatam – Origin and Development	18								
Unit 5	1. SamayaH in Sanskrit 2. Translation from English to Sanskrit 20 sentences using Present and Future Tense. 3. Authorship and Influence of Mahabharata, Contrast Between Ramayana and Mahabharata	18								

Books for Study

1. A SHORT HISTORY OF SANSKRIT LITERATURE - **T.K.Rama Chandra Iyer** R.S.Vadyar and sons, Phalghat. (Page no- 1-56)
2. SAHITHYA RASA KANAH - **Prof.Jegadisan**, Madura College AMG Publications, Madurai.
3. VADATU SAMSKRITAM, Samskrita Bharati, Chennai.

Books for References

1. Sulekhsvali, Samskrita Bharati, Chennai
2. Kalabodhini, Samskrita Bharati, Chennai
3. Samskrita Vyavahara Sahasri, Samskrita Bharati, Chennai

WEB RESOURCES

1. <https://nptel.ac.in/courses/109/105/109105135/>
2. <https://nptel.ac.in/courses/109/105/109105169/>
3. <https://www.youtube.com/watch?v=NTfNilCq-Lc&list=PLbRMhDVUMngfYG2GVf2bQnIgsI0Y923g3>
4. https://www.youtube.com/watch?v=d03uKp_OX18&list=PLudSN7Po9muLeRM6545s68eakbxwZRpEJ
5. <https://learnsanskritonline.com/announcement/2012/mar/10/beginners-101-sanskrit-through-english-course-code-b101e>

Course Designer(s):

1. **Prof. P.Manikandan**

Pedagogy

Chalk and Talk
ICT Tools (Quizizz.com)
Power point presentation
Group discussion
Seminar,
Interaction,
Quiz and Assignments

Course Learning Outcomes

At the end of the course students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Gain basic knowledge about Devanagari Script and understand Male/Female/Neuter Gender Words	Upto K2
CLO2	Identify Person/Number/Tense	Upto K3
CLO3	Know to Substitute word without affecting Number/Tense/Grammar and to enhance students attitude towards good behavior through Subhashitani (Good says)	Upto K2
CLO4	Understand the Sanskrit Literature like Vedas, Vedangas and Epic Literature	Upto K3
CLO5	Translate from Sanskrit to English in Present / Future Tense	Upto K2

K1 Knowledge

K2 Understanding

K3 Apply

Mapping with Programme Outcomes

	PO-1	PO-2	PO-3	PO-4	PO-5
CLO-1	1	-	3	-	2
CLO-2	-	-	2	-	3
CLO-3	1	-	3	1	2
CLO-4	2	1	3	1	3
CLO-5	-	-	3	1	1

3- Advance application; 2- Intermediate Level; 1- Basic level

Evaluation Pattern

Internal (Formative) : 25 marks

External (Summative) : 75 marks

Total : 100 marks

The curriculum is strengthened through the recent revisions as per UGC and TANSCH Norms.

FORMATIVE - BLUE PRINT - 20U1SLA1

Articulation Mapping - K Levels with Courses Learning Outcomes (CLOs)

Sl. No	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)	Total
			MCQs		Short Answers				
			No. of Questions	K- Level	No. of Questions	K- Level			
1	CLO 1	Up to K 2	2	K1& K2	1	K1	2 (K2&K2)	1(K2)	
2	CLO 2	Up to K 3	2	K1& K2	2	K2, K2	2 (K3&K3)	1(K3/K3)	
No. of Questions to be asked			4		3		4	2	13
No. of Questions to be answered			4		2		2	1	10
Marks for each question			1		3		5	10	
Total Marks for each section			4		6		10	10	30

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	2	2		--	4	10	63
K2	2	4	5	10	21	52.50	
K3	-	-	5	10	15	37.50	37
Total Marks	4	6	10	20	40	100.00	100%

SUMMATIVE - BLUE PRINT – 20U1SLA1

Articulation Mapping - K Levels with Courses Learning Outcomes (CLOs)

Sl.No	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO 1	Up to K 2	2	K1& K2	1	K1	2 (K1&K1)	1(K2)
2	CLO 2	Up to K 3	2	K1& K2	1	K1	2 (K2&K2)	1(K3)
3	CLO 3	Up to K 3	2	K1& K2	1	K2	2 (K3&K3)	1(K3)
4	CLO 4	Up to K 4	2	K1& K2	1	K2	2 (K4&K4)	1(K4)
5	CLO 5	Up to K 3	2	K1& K2	1	K2	2 (K3&K3)	1(K3)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	5	4	10	--	19	15.83	42%
K2	5	6	10	10	31	25.83	
K3	-	-	20	30	50	41.67	42%
K4	-	-	10	10	20	16.67	16%
Total Marks	10	10	50	50	120	100.00	100%

Lecture Schedule (Course Plan) 20U1SLA1

Unit	Topics	Hrs	Mode							
Unit I	Fundamental Grammar: Vowels, Consonants, word formation, simple sentences	6	Chalk and talk, Quiz and assignment							
	Declension of nouns: Rama, Sita, Phalam, Asmad, Yusmad.	6								
	History of Sanskrit literature: Introduction to the classifications of Indian Sanskrit Literature, Vedic period – Vedas - Date of Vedas	6								
Unit II	Conjugation of Roots in i) Present (Lat)	6	PPT, Chalk and talk, and Group discussion							
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Bhu (to be)</td> <td style="padding: 2px;">Khel (to play)</td> </tr> <tr> <td style="padding: 2px;">Patt (to read)</td> <td style="padding: 2px;">Khad (to eat)</td> </tr> <tr> <td style="padding: 2px;">Likh (to write)</td> <td style="padding: 2px;">Drus (to see)</td> </tr> <tr> <td style="padding: 2px;">Vad (to speak)</td> <td style="padding: 2px;">Gam (to go)</td> </tr> </table>			Bhu (to be)	Khel (to play)	Patt (to read)	Khad (to eat)	Likh (to write)	Drus (to see)	Vad (to speak)
	Bhu (to be)	Khel (to play)								
	Patt (to read)	Khad (to eat)								
Likh (to write)	Drus (to see)									
Vad (to speak)	Gam (to go)									
ii) Future (Lrit)	6									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Bhu (to be)</td> <td style="padding: 2px;">Khel (to play)</td> </tr> <tr> <td style="padding: 2px;">Patt (to read)</td> <td style="padding: 2px;">Khad (to eat)</td> </tr> <tr> <td style="padding: 2px;">Likh (to write)</td> <td style="padding: 2px;">Drus (to see)</td> </tr> <tr> <td style="padding: 2px;">Vad (to speak)</td> <td style="padding: 2px;">Gam (to go)</td> </tr> </table>		Bhu (to be)	Khel (to play)	Patt (to read)	Khad (to eat)	Likh (to write)	Drus (to see)	Vad (to speak)	Gam (to go)	
Bhu (to be)	Khel (to play)									
Patt (to read)	Khad (to eat)									
Likh (to write)	Drus (to see)									
Vad (to speak)	Gam (to go)									
	History of Sanskrit literature: Sutra period – Vedangas and Post Vedic Sastras	6								
Unit III	Use in sentences: Asti, Nasti, Atra, Tatra, Anyatra, Sarvatra, kutra? Aavshyakam, Mastu, Paryaptam	4	PPT, Chalk and talk, Quiz and Group discussion							
	Selected ten slokas from Subhashitani	6								
	History of Sanskrit literature: Classical period - Ramayanam – Date, Origin and Development	8								
Unit IV	Sankya 1-50 in Sanskrit	4	PPT, Chalk and talk, Assignment							
	History of Sanskrit literature: Epic Literature- Mahabharatam – Origin	7								
	Mahabharatam –Development Development of Mahabharata	7								
Unit V	SamayaH in Sanskrit	4	Chalk and talk, Quiz and Interaction							
	Translation from English to Sanskrit 10 sentences using Present and Future Tense	7								
	Authorship and Influence of Mahabharata, Contrast Between Ramayana and Mahabharata	7								

DEPARTMENT OF SANSKRIT				CLASS: I B.A. / B.Sc.				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
II	Part 1	20U2SLA2	Sanskrit II	3	6	25	75	100

Course Objectives:

1. To make the students to acquire knowledge about Sanskrit Kavya Literature
2. To familiarize the great poets of Kavya Literature
3. To Insist culture and traditional values of human life inculcated through Kavya Literature
4. To make the them to understand the classification of Sanskrit Poetic Literature
5. To make the them Learn about Devotional Lyrics and Tamil Chemmozhi Literature briefly

Syllabus

Unit	Sanskrit II	Hours
Unit 1	Kalividambanam (20 slokas) Scholars -1, 3, 6 Teachers -8, 9, 10 Astrologers -15, 16, 18 Physicians -23-31 Poets -35, 38	18
Unit 2	Kalividambanam(10 Slokas) & Sabharanjana Satakam (10 Slokas) Kalividambanam Relatives -41,42,45,47-49 Poverty -53, The Rich -65, Traitors -74, Conclusion -100 Sabharanjanasatakam Strength -45,48,49,51 Time & Fate -57,64,65 Patience& Peace -71 ,75,76	18
Unit 3	Sabharanjana Satakam (20 slokas) Wisdom - 1-6,9,12 Poet & Poetry -18,20 Donation -33,35,39,41,42 Dharma, Artha, Kama -79,90,93 King & Kingdom -103,105	18
Unit 4	History of Sanskrit Literature: Kavyas - Origin and development, Characteristics of Maha kavyas – Panca maha kavyas	18
Unit 5	Lyrics - Bhakthi Kavyas, Sringara Kavyas Classical Tamil: Tamil Semmozhi Varalaru <u>தமிழ்ச் செம்மொழி வரலாறு</u> மொழி-விளக்கம் - மொழிக்குடும்பங்கள் - உலகச் செம்மொழிகள் - செம்மொழிகள் - இந்தியச் செம்மொழிகள் - செம்மொழித்தகுதிகள் - வரையறைகள் -	18

<p>வாழும் தமிழ்ச் செம்மொழி - தமிழின் தொன்மைகள் - தமிழின் சிறப்புகள் - தமிழ்ச் செம்மொழி நூல்கள்.</p> <p>தமிழ்ச் செம்மொழி அறிந்தேற்பு - பரிதிமாற் கலைஞர் அவர்கள் முதல் கலைஞர் திரு.மு.கருணாநிதி அவர்கள் வரை (அறிஞர்கள் - அமைப்புகள் - நிறுவனங்கள் - இயக்கங்கள் - தொடர் முயற்சிகள் - அறப்போராட்டங்கள் - தொடர் முயற்சிகள் - அறப்போராட்டங்கள் - உலகத்தமிழ் செம்மொழி மாநாடு கோவை - 2010).</p>	
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பார்வை நூல்கள்

1. கலைஞர் மு.கருணாநிதி, செம்மொழி வரலாற்றில் சில செப்பேடுகள்.
2. ஆய்வரங்கச் சிறப்பு மலர், உலகத் தமிழ்ச் செம்மொழி மாநாடு, கோவை - 2010.
3. உலகத் தமிழ்ச் செம்மொழி மாநாடுச்சிறப்பு மலர், கோவை - 2010.
4. சாலினி இளந்திரையன், தமிழ்ச் செம்மொழி ஆவணம், மணிவாசகர் பதிப்பகம், சென்னை - 2005.

Books for Study

1. Kalividambanam and Sabaranjana satakam By Sri Nilakanta Dikshita Translated by Prof.C.Anantha Raman
2. A Short History of Sanskrit Literature T.K.Rama Chandra Iyer R.S.Vadyar and sons, Phalghat. (Page no. 57-84, 92-103)

Books for References

1. Pancatantra, Samskritha Bharati, Chennai
2. Kalabodhini, Samskrita Bharati, Chennai
3. Samskrita Vyavahara Sahasri, Samskritha Bharati, Chennai

Web References

1. <https://www.prekshaa.in/nilakantha-dikshita>
2. <https://archive.org/details/in.ernet.dli.2015.263321/page/n20/mode/2up>
3. <https://www.britannica.com/art/kavya>
4. <https://en.wikipedia.org/wiki/Mahakavya>
5. https://en.wikisource.org/wiki/A_History_of_Sanskrit_Literature/Chapter_11
6. <https://sreenivasaraos.com/tag/classifications-of-the-kavya/>

Course Designer(s):

1. Prof. P.Manikandan

Pedagogy

Chalk and Talk
 ICT Tools (Quizizz.com)
 Power point presentation
 Group discussion
 Seminar,
 Interaction,
 Quiz and Assignments

Course Learning Outcomes

At the end of the course students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	• Gain basic knowledge about the origin of Sanskrit Kavya Literature	K1, K2
CLO2	• Understand Sanskrit Poetic Literature and Style of Writing Poems	K2,K3
CLO3	• Compare Poetic Literature with Modern Life and to classify and discuss the importance of early literature	K1,K2
CLO4	• Practice creativity and demonstrate different aspects of life as portrayed in Sanskrit Literature	K2, K3
CLO5	• Learn Sanskrit Bhakti Literature and Tamil Chemmozhi Literature at basic levels	K2, K3

K1 Knowledge

K2 Understanding

K3 Apply

Mapping with Programme Outcomes

	PO-1	PO-2	PO-3	PO-4	PO-5
CLO-1	1	1	3	-	2
CLO-2	-	1	2	-	3
CLO-3	1	2	3	1	2
CLO-4	-	1	3	1	3
CLO-5	-	1	3	1	1

3- Advance application; 2- Intermediate Level; 1- Basic level

Evaluation Pattern

Internal (Formative) : 25 marks

External (Summative) : 75 marks

Total : 100 marks

The curriculum is strengthened through the recent revisions as per UGC and TANSICHE Norms.

FORMATIVE - BLUE PRINT - 20U2SLA2

Articulation Mapping - K Levels with Courses Learning Outcomes (CLOs)

Sl. No	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)	Total
			MCQs		Short Answers				
			No. of Questions	K- Level	No. of Questions	K- Level			
1	CLO 1	Up to K 2	2	K1& K2	1	K1	2 (K2&K2)	1(K2)	
2	CLO 2	Up to K 3	2	K1& K2	2	K2,K2	2 (K3&K3)	1(K3/K3)	
No. of Questions to be asked			4		3		4	2	13
No. of Questions to be answered			4		2		2	1	10
Marks for each question			1		3		5	10	
Total Marks for each section			4		6		10	10	30

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	2	2		--	4	10	63
K2	2	4	5	10	21	52.50	
K3	-	-	5	10	15	37.50	37
Total Marks	4	6	10	20	40	100.00	100%

SUMMATIVE - BLUE PRINT – 20U2SLA2

Articulation Mapping - K Levels with Courses Learning Outcomes (CLOs)

Sl. No	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO 1	Up to K 2	2	K1& K2	1	K1	2 (K1&K1)	1(K2)
2	CLO 2	Up to K 3	2	K1& K2	1	K1	2 (K2&K2)	1(K3)
3	CLO 3	Up to K 3	2	K1& K2	1	K2	2 (K3&K3)	1(K3)
4	CLO 4	Up to K 4	2	K1& K2	1	K2	2 (K4&K4)	1(K4)
5	CLO 5	Up to K 3	2	K1& K2	1	K2	2 (K3&K3)	1(K3)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	5	4	10	--	19	15.83	42%
K2	5	6	10	10	31	25.83	
K3	-	-	20	30	50	41.67	42%
K4	-	-	10	10	20	16.67	16%
Total Marks	10	10	50	50	120	100.00	100%

Lecture Schedule (Course Plan) 20U2SLA2

Unit	Topics	Hrs	Mode
Unit I	Kalividambanam (20 slokas) Scholars -1, 3, 6	6	Chalk and talk, Quiz and assignment
	Teachers -8, 9, 10 Astrologers -15, 16, 18	6	
	Physicians -23-31 Poets -35, 38	6	
Unit II	Kalividambanam(10 Slokas) & Sabharanjana Satakam (10 Slokas) Kalividambanam : Relatives -41,42,45,47-49	6	PPT, Chalk and talk, and Group discussion
	Poverty -53, The Rich -65, Traitors -74, Conclusion -100	4	
	Sabharanjanasatakam: Strength -45,48,49,51	4	
	Time & Fate -57,64,65 Patience& Peace -71 ,75,76	4	
Unit III	Sabharanjana Satakam (20 slokas) Wisdom - 1-6,9,12	5	PPT, Chalk and talk, Quiz and Group discussion
	Poet & Poetry -18,20 Donation -33,35,39,41,42	7	
	Dharma, Artha, Kama -79,90,93 King & Kingdom -103,105	6	
Unit IV	History of Sanskrit Literature: Kavyas - Origin and development,	9	PPT, Chalk and talk, Assignment
	Characteristics of Maha kavyas – Panca maha kavyas	9	
Unit V	Lyrics - Bhakthi Kavyas,	6	Chalk and talk, Quiz and Interaction
	Sringara Kavyas	6	
	Classical Tamil: History of Tamil Semmozhi தமிழ்ச் செம்மொழி வரலாறு மொழி-விளக்கம் - மொழிக்குடும்பங்கள் - உலகச் செம்மொழிகள் - செம்மொழிகள் - இந்தியச் செம்மொழிகள் - செம்மொழித்தகுதிகள் - வரையறைகள் - வாழும் தமிழ்ச் செம்மொழி - தமிழின் தொன்மைகள் - தமிழின் சிறப்புகள் - தமிழ்ச் செம்மொழி நூல்கள். தமிழ்ச் செம்மொழி அறிந்தேற்பு - பரிதிமாற் கலைஞர் அவர்கள் முதல் கலைஞர் திரு.மு.கருணாநிதி அவர்கள் வரை (அறிஞர்கள் - அமைப்புகள் - நிறுவனங்கள் - இயக்கங்கள் - தொடர் முயற்சிகள் - அறப்போராட்டங்கள் - தொடர் முயற்சிகள் - அறப்போராட்டங்கள் - உலகத்தமிழ் செம்மொழி மாநாடு கோவை - 2010).	6	

<i>DEPARTMENT OF SANSKRIT</i>				<i>CLASS: I B.Com (General, PA, B&I, CM)</i>				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
I	Part 1	20U1SLK1	Sanskrit for Commerce I	1	3	25	75	100

Course Objectives:

1. To Introduce Devanagari Script
2. To Familiarize with Male/Female/Neuter gender Words
3. To Make the students to understand the language in its right Grammatical form and the proper usage of Nouns & Verbs
4. To disseminate the Sanskrit Literature like Vedas, Vedangas
5. To make the students to translate from Sanskrit to English in Present /Future Tense

Syllabus

Unit	<i>Sanskrit IA</i>	Hours								
Unit 1	1. Fundamental Grammar I: Vowels, Consonants, word formation, simple sentences 2. Declension of nouns: Rama, Sita, Phalam 3. History of Sanskrit literature: Introduction – Classification of Indian Sanskrit Literature	9								
Unit 2	1. Conjugation of Roots in i) Present Tense (Lat LakaraH) <table border="1" style="margin-left: 40px;"> <tr> <td>Bhu (to be)</td> <td>Khel (to play)</td> </tr> <tr> <td>Patt (to read)</td> <td>Khad (to eat)</td> </tr> <tr> <td>Likh (to write)</td> <td>Gam (to go)</td> </tr> <tr> <td>Vad (to speak)</td> <td>Pib (to drink)</td> </tr> </table> 2. History of Sanskrit literature: Vedic period – Date of Vedas	Bhu (to be)	Khel (to play)	Patt (to read)	Khad (to eat)	Likh (to write)	Gam (to go)	Vad (to speak)	Pib (to drink)	9
Bhu (to be)	Khel (to play)									
Patt (to read)	Khad (to eat)									
Likh (to write)	Gam (to go)									
Vad (to speak)	Pib (to drink)									
Unit 3	1. Use in sentences: Asti, Nasti, Atra, Tatra, Anyatra, Sarvatra, kutra? Aavshyakam, Mastu, Paryaptam 2. Selected Ten slokas from Subhashitani 3. History of Sanskrit literature: Sutra period - Introduction	9								
Unit 4	1. Sankya 1-50 in Sanskrit 2. History of Sanskrit literature: Vedangas – Origin and Development, Post Vedic sastras	9								
Unit 5	1. SamayaH in Sanskrit 2. Translation from English to Sanskrit Ten sentences using (Lat LakaraH) Present Tense.	9								

Books for Study

1. A SHORT HISTORY OF SANSKRIT LITERATURE - **T.K.Rama Chandra Iyer** R.S.Vadyar and sons, Phalghat. (Page no- 1-24)
2. SAHITHYA RASA KANAH - **Prof.Jegadisan**, Madura College AMG Publications, Madurai.
3. Vadatu Samskrutam, Samskritha Bharathi, Chennai

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2. Kalabodhini, Samskrita Bharati, Chennai
3. Samskrita Vyavahara Sahasri, Samskritha Bharati, Chennai

Web Resources

1. <https://nptel.ac.in/courses/109/105/109105135/>
2. <https://nptel.ac.in/courses/109/105/109105169/>
3. <https://www.youtube.com/watch?v=NTfNiICq-Lc&list=PLbRMhDVUMngfYG2GVf2bQnIgsI0Y923g3>
4. https://www.youtube.com/watch?v=d03uKp_OX18&list=PLudSN7Po9muLeRM6545s68eakbxwZRpEJ
5. <https://learnsanskritonline.com/announcement/2012/mar/10/beginners-101-sanskrit-through-english-course-code-b101e>

Course Designer(s):

1. **Prof. P.Manikandan**

Pedagogy

Chalk and Talk
ICT Tools (Quizizz.com)
Power point presentation
Group discussion
Seminar,
Interaction,
Quiz and Assignments

Course Learning Outcomes

At the end of the course students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Gain basic knowledge about Devanagari Script and understand Male/Female/Neuter Gender Words	Upto K2
CLO2	Identify Person/Number/Tense	Upto K3
CLO3	Know to Substitute word without affecting Number/Tense/ Grammar and to enhance students attitude towards good behavior through Subhashitani (Good says)	Upto K2
CLO4	Understand the Sanskrit Literature like Vedas, Vedangas and Epic Literature	Upto K3
CLO5	Translate from Sanskrit to English in Present / Future Tense	Upto K3

K1 Knowledge

K2 Understanding

K3 Apply

Mapping with Programme Outcomes

	PO-1	PO-2	PO-3	PO-4	PO-5
CLO-1	1	1	3	-	2
CLO-2	-	1	2	-	3
CLO-3	1	1	3	-	2
CLO-4	1	2	3	1	3
CLO-5	-	1	3	1	1

3- Advance application; 2- Intermediate Level; 1- Basic level

Evaluation Pattern

Internal (Formative) : 25 marks

External (Summative) : 75 marks

Total : 100 marks

The curriculum is strengthened through the recent revisions as per UGC and TANSCH Norms.

FORMATIVE - BLUE PRINT- 20U1SLK1

Articulation Mapping - K Levels with Courses Learning Outcomes (CLOs)

Sl. No	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)	Total
			MCQs		Short Answers				
			No. of Questions	K- Level	No. of Questions	K- Level			
1	CLO 1	Up to K 2	2	K1& K2	1	K1	2 (K2&K2)	1(K2)	
2	CLO 2	Up to K 3	2	K1& K2	2	K2, K2	2 (K3&K3)	1(K3/K3)	
No. of Questions to be asked			4		3		4	2	13
No. of Questions to be answered			4		2		2	1	10
Marks for each question			1		3		5	10	
Total Marks for each section			4		6		10	10	30

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	2	2		--	4	10	63
K2	2	4	5	10	21	52.50	
K3	-	-	5	10	15	37.50	37
Total Marks	4	6	10	20	40	100.00	100%

SUMMATIVE - BLUE PRINT – 20U1SLK1

Articulation Mapping - K Levels with Course Learning Outcomes (CLOs)

Sl. No	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO 1	Up to K 2	2	K1& K2	1	K1	2 (K1&K1)	1(K2)
2	CLO 2	Up to K 3	2	K1& K2	1	K1	2 (K2&K2)	1(K3)
3	CLO 3	Up to K 3	2	K1& K2	1	K2	2 (K3&K3)	1(K3)
4	CLO 4	Up to K 4	2	K1& K2	1	K2	2 (K4&K4)	1(K4)
5	CLO 5	Up to K 3	2	K1& K2	1	K2	2 (K3&K3)	1(K3)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	5	4	10	--	19	15.83	42%
K2	5	6	10	10	31	25.83	
K3	-	-	20	30	50	41.67	42%
K4	-	-	10	10	20	16.67	16%
Total Marks	10	10	50	50	120	100.00	100%

Lecture Schedule (Course Plan) 20U1SLK1

Unit	Topics	Hours	Mode								
Unit I	1. Fundamental Grammar I : Vowels, Consonants, word formation, simple sentences	4	Chalk and talk, Quiz and assignment								
	2. Declension of nouns: Rama, Sita, Phalam	3									
	3. History of Sanskrit literature: Introduction -Vedic period - Classification of Indian Sanskrit Literature	2									
Unit II	1. Conjugation of Roots in i) Present Tense (Lat LakaraH) <table border="1" style="margin-left: 20px;"> <tr> <td>Bhu (to be)</td> <td>Khel (to play)</td> </tr> <tr> <td>Patt (to read)</td> <td>Khad (to eat)</td> </tr> <tr> <td>Likh (to write)</td> <td>Gam (to go)</td> </tr> <tr> <td>Vad (to speak)</td> <td>Pib (to drink)</td> </tr> </table>	Bhu (to be)	Khel (to play)	Patt (to read)	Khad (to eat)	Likh (to write)	Gam (to go)	Vad (to speak)	Pib (to drink)	6	PPT, Chalk and talk, and Group discussion
	Bhu (to be)	Khel (to play)									
Patt (to read)	Khad (to eat)										
Likh (to write)	Gam (to go)										
Vad (to speak)	Pib (to drink)										
2. History of Sanskrit literature: Vedic period – Date of Vedas	3										
Unit III	1. Use in sentences: Asti, Nasti, Atra, Tatra, Anyatra, Sarvatra, kutra? Aavshyakam, Mastu, Paryaptam	4	PPT, Chalk and talk, Quiz and Group discussion								
	2. Selected Ten slokas from Subhashitani	4									
	3. History of Sanskrit literature: Sutra period - Introduction	1									
Unit IV	1. Sankya 1-50 in Sanskrit	4	PPT, Chalk and talk, Assignment								
	2. History of Sanskrit literature: Vedangas – Origin and Development, Post Vedic sastras	5									
Unit V	1. SamayaH in Sanskrit	4	Chalk and talk, Quiz and Interaction								
	2. Translation from English to Sanskrit Ten sentences using (Lat LakaraH) Present Tense.	5									

DEPARTMENT OF SANSKRIT				CLASS: I B.Com (General, PA, B&I, CM)				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
II	Part 1	20U1SLK2	Sanskrit for Commerce II	1	3	25	75	100

Course Objectives:

1. To Introduce Devanagari Script level 2
2. To Familiarize with Male/Female/Neuter gender Words
3. To Make the students to understand the language in its right Grammatical form and the proper usage of Nouns & Verbs
4. To disseminate the Sanskrit Literature like Classical period and Epic Literature
5. To make the students to translate from Sanskrit to English in Present /Future Tense and learn Tamil Chemmozhi Literature briefly

Syllabus: 20U2SLK2

Unit	Sanskrit 2A	Hours								
Unit 1	1. Fundamental Grammar II : Vowels, Consonants, word formation, simple sentences 2. Declension of nouns: Asmad, Yusmad. 3. History of Sanskrit literature: Introduction to the classifications of Indian Sanskrit Literature, Classical period	9								
Unit 2	1. Conjugation of Roots in ii) Future Tense (Lrit Lakarah) <table border="1" style="margin-left: 40px;"> <tr> <td>Bhu (to be)</td> <td>Khel (to play)</td> </tr> <tr> <td>Patt (to read)</td> <td>Khad (to eat)</td> </tr> <tr> <td>Likh (to write)</td> <td>Gam (to go)</td> </tr> <tr> <td>Vad (to speak)</td> <td>Pib (to drink)</td> </tr> </table> 2. History of Sanskrit literature: Epic Literature, Authorship and Influence of Mahabharata	Bhu (to be)	Khel (to play)	Patt (to read)	Khad (to eat)	Likh (to write)	Gam (to go)	Vad (to speak)	Pib (to drink)	9
Bhu (to be)	Khel (to play)									
Patt (to read)	Khad (to eat)									
Likh (to write)	Gam (to go)									
Vad (to speak)	Pib (to drink)									
Unit 3	1. Use in sentences: Alam, Saha, Vina, Api, Ca, Eva, Ithi, Yada-Tada, Yatha-Thatha, Yatra-Tatra 2. Selected ten slokas from Subhashitani 3. History of Sanskrit literature: Classical period - Ramayanam – Date, Origin and Development	9								
Unit 4	1. Sankhya 51-100 in Sanskrit 2. History of Sanskrit literature: Mahabharatam – Origin and Development	9								
Unit 5	1. Translation from English to Sanskrit 10 sentences using Future Tense. 2. History of Sanskrit literature: Authorship and Influence – Contrast between Ramayana and Mahabharata 3. Classical Tamil: History of Tamil Semmozhi தமிழ்ச் செம்மொழி வரலாறு மொழி-விளக்கம் - மொழிக்குடும்பங்கள் - உலகச் செம்மொழிகள் - செம்மொழிகள் - இந்தியச் செம்மொழிகள் - செம்மொழித்தகுதிகள் - வரையறைகள் - வாழும் தமிழ்ச் செம்மொழி - தமிழின் தொன்மைகள் - தமிழின் சிறப்புகள் - தமிழ்ச் செம்மொழி நூல்கள். தமிழ்ச் செம்மொழி அறிந்தேற்பு - பரிதிமாற் கலைஞர் அவர்கள் முதல் கலைஞர் திரு.மு.கருணாநிதி அவர்கள் வரை (அறிஞர்கள் - அமைப்புகள் - நிறுவனங்கள் - இயக்கங்கள் - தொடர் முயற்சிகள் - அறப்போராட்டங்கள் - தொடர் முயற்சிகள் - அறப்போராட்டங்கள் - உலகத்தமிழ் செம்மொழி மாநாடு கோவை - 2010).	9								

பார்வை நூல்கள்

1. கலைஞர் மு.கருணாநிதி, செம்மொழி வரலாற்றில் சில செப்பேடுகள்.
2. ஆய்வரங்கச் சிறப்பு மலர், உலகத் தமிழ்ச் செம்மொழி மாநாடு, கோவை - 2010.
3. உலகத் தமிழ்ச் செம்மொழி மாநாடுச்சிறப்பு மலர், கோவை - 2010.
4. சாலினி இளந்திரையன், தமிழ்ச் செம்மொழி ஆவணம், மணிவாசகர் பதிப்பகம், சென்னை - 2005.

Books for Study

1. A SHORT HISTORY OF SANSKRIT LITERATURE - **T.K.Rama Chandra Iyer** R.S.Vadyar and sons, Phalghat. (Page no- 24-37, 46-56)
2. SAHITHYA RASA KANAH - **Prof.Jegadisan**, Madura College AMG Publications, Madurai.
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2. Kalabodhini, Samskrita Bharati, Chennai
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2. <https://nptel.ac.in/courses/109/105/109105169/>
3. <https://www.youtube.com/watch?v=NTfNilCq-Lc&list=PLbRMhDVUMngfYG2GVf2bQnlgsIOY923g3>
4. https://www.youtube.com/watch?v=d03uKp_OX18&list=PLudSN7Po9muLeRM6545s68eakbxwZRpE
5. <https://learnsanskritonline.com/announcement/2012/mar/10/beginners-101-sanskrit-through-english-course-code-b101e>

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ICT Tools (Quizizz.com)
Power point presentation
Group discussion
Seminar,
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Quiz and Assignments

Course Learning Outcomes

At the end of the course students will be able to

CLO Number	CLO Statement	Knowledge Level
CLO1	Gain basic knowledge about Devanagari Script and understand Male/Female/Neuter Gender Words	Upto K2
CLO2	Identify Person/Number/Tense	Upto K3
CLO3	Know to Substitute word without affecting Number/Tense/Grammar and to enhance students attitude towards good behavior through Subhashitani (Good says)	Upto K2
CLO4	Understand the Sanskrit Literature like Vedas, Vedangas and Epic Literature	Upto K3
CLO5	Translate from Sanskrit to English in Present / Future Tense and know Tamil Chemmozhi Literature briefly	Upto K3

K1 Knowledge

K2 Understanding

K3 Apply

Mapping with Programme Outcomes

	PO-1	PO-2	PO-3	PO-4	PO-5
CLO-1	1	1	3	-	2
CLO-2	-	1	2	-	3
CLO-3	1	1	3	-	2
CLO-4	1	2	3	1	3
CLO-5	-	1	3	1	1

3- Advance application; 2- Intermediate Level; 1- Basic level

Evaluation Pattern

Internal (Formative) : 25 marks

External (Summative) : 75 marks

Total : 100 marks

The curriculum is strengthened through the recent revisions as per UGC and TANSCH Norms.

FORMATIVE - BLUE PRINT- 20U2SLK2

Articulation Mapping - K Levels with Courses Learning Outcomes (CLOs)

Sl. No	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)	Total
			MCQs		Short Answers				
			No. of Questions	K- Level	No. of Questions	K- Level			
1	CLO 1	Up to K2	2	K1& K2	1	K1	2 (K2&K2)	1(K2)	
2	CLO 2	Up to K3	2	K1& K2	2	K2, K2	2 (K3&K3)	1(K3/K3)	
No. of Questions to be asked			4		3		4	2	13
No. of Questions to be answered			4		2		2	1	10
Marks for each question			1		3		5	10	
Total Marks for each section			4		6		10	10	30

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	2	2		--	4	10	63
K2	2	4	5	10	21	52.50	
K3	-	-	5	10	15	37.50	37
Total Marks	4	6	10	20	40	100.00	100%

SUMMATIVE - BLUE PRINT – 20U2SLK2

Articulation Mapping - K Levels with Course Learning Outcomes (CLOs)

Sl. No	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO 1	Up to K 2	2	K1& K2	1	K1	2 (K1&K1)	1(K2)
2	CLO 2	Up to K 3	2	K1& K2	1	K1	2 (K2&K2)	1(K3)
3	CLO 3	Up to K 3	2	K1& K2	1	K2	2 (K3&K3)	1(K3)
4	CLO 4	Up to K 4	2	K1& K2	1	K2	2 (K4&K4)	1(K4)
5	CLO 5	Up to K 3	2	K1& K2	1	K2	2 (K3&K3)	1(K3)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	5	4	10	--	19	15.83	42%
K2	5	6	10	10	31	25.83	
K3	-	-	20	30	50	41.67	42%
K4	-	-	10	10	20	16.67	16%
Total Marks	10	10	50	50	120	100.00	100%

Lecture Schedule (Course Plan) 20U2SLK2

Unit	Topics	Hrs	Mode								
Unit I	1. Fundamental Grammar II : Vowels, Consonants, word formation, simple sentences	3	Chalk and talk, Quiz and assignment								
	2. Declension of nouns: Asmad, Yusmad.	3									
	3. History of Sanskrit literature: Introduction to the classifications of Indian Sanskrit Literature, Classical period	3									
Unit II	1. Conjugation of Roots in ii) Future Tense (Lrit LakaraH) <table border="1" style="margin-left: 20px;"> <tr> <td>Bhu (to be)</td> <td>Khel (to play)</td> </tr> <tr> <td>Patt (to read)</td> <td>Khad (to eat)</td> </tr> <tr> <td>Likh (to write)</td> <td>Gam (to go)</td> </tr> <tr> <td>Vad (to speak)</td> <td>Pib (to drink)</td> </tr> </table>	Bhu (to be)	Khel (to play)	Patt (to read)	Khad (to eat)	Likh (to write)	Gam (to go)	Vad (to speak)	Pib (to drink)	6	PPT, Chalk and talk, and Group discussion
	Bhu (to be)	Khel (to play)									
Patt (to read)	Khad (to eat)										
Likh (to write)	Gam (to go)										
Vad (to speak)	Pib (to drink)										
2. History of Sanskrit literature: Epic Literature, Authorship and Influence of Mahabharata	3										
Unit III	1. Use in sentences: Alam, Saha, Vina, Api, Ca, Eva, Ithi, Yada-Tada, Yatha-Thatha, Yatra-Tatra	3	PPT, Chalk and talk, Quiz and Group discussion								
	2. Selected ten slokas from Subhashitani	3									
	3. History of Sanskrit literature: Classical period - Ramayanam – Origin and Development	3									
Unit IV	1. Sankhya 51-100 in Sanskrit	3	PPT, Chalk and talk, Assignment								
	2. History of Sanskrit literature: Mahabharatam – Origin and Development - Authorship and Influence – Contrast between Ramayana and Mahabharata	6									
Unit V	1. Translation from English to Sanskrit 10 sentences using Future Tense.	3	Chalk and talk, Quiz and Interaction								
	2. History of Sanskrit literature: Authorship and Influence – Contrast between Ramayana and Mahabharata	3									
	3. Classical Tamil: History of Tamil Semmozhi <u>தமிழ்ச் செம்மொழி வரலாறு</u> மொழி-விளக்கம் - மொழிக்குடும்பங்கள் - உலகச் செம்மொழிகள் - செம்மொழிகள் - இந்தியச் செம்மொழிகள் - செம்மொழித்தகுதிகள் - வரையறைகள் - வாழும் தமிழ்ச் செம்மொழி - தமிழின் தொன்மைகள் - தமிழின் சிறப்புகள் - தமிழ்ச் செம்மொழி நூல்கள். தமிழ்ச் செம்மொழி அறிந்தேற்பு - பரிதிமாற் கலைஞர் அவர்கள் முதல் கலைஞர் திரு. மு. கருணாநிதி அவர்கள் வரை (அறிஞர்கள் - அமைப்புகள் - நிறுவனங்கள் - இயக்கங்கள் - தொடர் முயற்சிகள் - அறப்போராட்டங்கள் - தொடர் முயற்சிகள் - அறப்போராட்டங்கள் - உலகத்தமிழ் செம்மொழி மாநாடு கோவை - 2010).	3									

Department of English

**Revised Curriculum
(Choice Based Credit system with Outcome Based Education)
Academic Year 2020-2021 onwards**

The Madura College (Autonomous), Madurai-11
Post Graduate Department of English

VISION OF THE DEPARTMENT

To make students comprehend the written and spoken forms of English
Also to make students familiar with British literature, Indian writing in English, American Literature, Canadian , Australian, African, and Continental Literatures and English Language Teaching and Linguistics.

MISSION

To decolonize the English sensibilities, introduce Indic thought and expose the students to the spiritual masterpieces of India.
To introduce new courses - Journalism, Translation Studies, and Indian literature in English Translation.

Learning Outcomes-based Curriculum Framework (LOCF) in English Language can be outlined through the following points:

Programme Educational Objectives (PEOs)

After completion of the programme the students will be able to assimilate

Sl. No.	Programme Educational Objectives
PEO1	a commitment to the knowledge to understand the world and how to make a contribution to it
PEO2	development of each person's unique potential
PEO3	respect for others and their rights;
PEO4	social and civic responsibility, participation in democratic processes; social justice and cultural diversity;
PEO5	Concern for the natural and cultural environment.



THE MADURA COLLEGE (AUTONOMOUS)

Department of English

Part II – English

SEM.	STUDY COMPONENTS	SUBJECT CODE	TITLE OF THE PAPER	HOURS	CREDIT
I	Mathematics		CLIL - Module 1	6	3
	Botany			6	3
	Chemistry			6	3
	Physics			6	3
	Zoology			6	3
	Bio technology			6	3
	Microbiology			6	3
	Computer Science			6	3
	Information Technology			6	3
	English			6	3
	Economics			6	3
	Tamil			6	3
	B.Com. (General)			6	3
	B.Com. (Professional Accounting)			6	3
	B.Com. (Banking & Insurance)			6	3
B.Com. (Corporate Markets)			6	3	
II	Mathematics		CLIL - Physics	6	3
	Botany		CLIL - Botany	6	3
	Chemistry		CLIL - Chemistry	6	3
	Physics		CLIL - Physics	6	3
	Zoology		CLIL - Zoology	6	3
	Bio technology-z		CLIL - Zoology	6	3
	Microbiology-b		CLIL - Biology	6	3
	Computer Science		CLIL - Computer Science	6	3
	Information Technology		CLIL - Computer Science	6	3
	English		CLIL - English	6	3
	Economics		CLIL - Economics	6	3
	Tamil		CLIL - History	6	3

III	Mathematics	CLIL - Physics	6	3
	Botany	CLIL - Botany	6	3
	Chemistry	CLIL - Chemistry	6	3
	Physics	CLIL - Physics	6	3
	Zoology	CLIL - Zoology	6	3
	Bio technology	CLIL - Zoology	6	3
	Microbiology	CLIL - Biology	6	3
	Computer Science	CLIL - Computer Science	6	3
	Information Technology	CLIL - Computer Science	6	3
	English	CLIL - English	6	3
	Economics	CLIL - Economics	6	3
	Tamil	CLIL - History	6	3
	IV	Mathematics	CLIL - Soft Skills	6
Botany			6	3
Chemistry			6	3
Physics			6	3
Zoology			6	3
Bio technology			6	3
Microbiology			6	3
Computer Science Information			6	3
Technology			6	3
English			6	3
Economics			6	3
Tamil			6	3
B.Com. (General)			6	3
B.Com. (Professional			6	3
Accounting)			6	3
B.Com. (Banking & Insurance)			6	3
B.Com. (Corporate Markets)				

The programme learning outcomes

The student graduating with the B.A., B.Sc., or B.Com. Degree should be able to:

NO	PLOs
PO-1	Integrate learned skills and knowledge derived from the study of the humanities and/or the arts and other related disciplines, acquiring the necessary depth and breadth required for a transdisciplinary perspective.
PO-2	Demonstrate proficiency in using disciplinary-appropriate methods for research, critical analysis, creative work or professional performance.
PO-3	Communicate conclusions, interpretations, and implications clearly, concisely, and effectively, both orally and in writing for different types of audiences.
PO-4	Articulate and apply values, principles, ethics and ideals derived from an integrated understanding of their areas of study and demonstrate awareness of current societal and environmental challenges and ways of mitigating them.
PO-5	Use modern tools, resources and software and be abreast with the emerging trends in their disciplinary area and practice lifelong learning.

Evaluation

Internal (Formative)	: 25 marks
External (Summative)	: 75 marks
Total	:100 marks

Continuous Internal Assessment : 25 Marks

Components	Marks
Test (Average of two tests) Conducted for 40 marks and converted into 10 marks)	10
Seminar	5
Quiz/ Documentation/ICT based Assignment/ Mini Projects/Assignments	5
Attendance	5
Total	25

- ✓ Centralized system of Internal Assessment Tests
- ✓ There will be a two internal assessment tests
- ✓ Duration of Internal assessment test will be 2 hours
- ✓ Students shall write retest on the genuine grounds if they are absent in either Test I or Test II with the approval of HoD and the Principal

Question Paper Pattern for Internal Test

Section		Marks
A- Multiple Choice Questions	(4x1mark)	4
B- Short Answers	(3X2 mark)	6
C- Either/Or	(2x5marks)	10
D- Open Choice	(2/3 *10 Marks)	20
Total		40

Conducted for 40 marks and converted into 10 marks

Question Paper Pattern for External Examination

Section		Marks
A- Multiple Choice Questions	(10x1 mark)	10
B- Short Answers	(5x2 mark)	10
C- Either/Or type	(5x5marks)	25
D- Open Choice type	(3out of 5 X10Marks)	30
Total		75

In respect of external examinations passing minimum is 35% for Under Graduate Courses and in total, aggregate of 40%.

<i>DEPARTMENT OF ENGLISH</i>				<i>CLASS: I B.A. / B.Sc./B.Com.</i>				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
I	Part - II		English-I	3	6	25	75	100

Course Objectives (COs)

<i>Course Objectives</i>
➤ To empower students to read and comprehend content in English
➤ To compose paragraphs using linkers, to identify & recognize Naming words, Action words, describing words Distinguish form and function words
➤ To learn Kinds of Sentences ,singular and plurals / present and past tenses, to reproduce pronunciation of letter “c” ,”s” and “ed” from the context given in the passage
➤ To fill Forms and prepare adds in order to use language skills necessary for social, academic and professional purposes.
➤ To appreciate and analyze a genre on their own

Unit	<i>Content and Language Integrated Learning to Enhance Communication Skills- Course Contents</i>	Hours
Unit 1	Prelude — understanding of the different ways in which the words in the language are classified . Parts of Speech— All words in English can be classified into eight classes called parts of speech based on the work they do in a sentence: noun, pronoun, adjective, verb, adverb, preposition, conjunction, adverb and interjection. Vocabulary— New Words with its meaning ,form and use	18 hrs.
Unit 2	Listening Comprehension- Effects of Imperialism. Speaking-- Stress and Intonation for content and function words , Contractions with pronouns and verbs. Reading- - Vocabulary, photo gallery for vocabulary development Punctuation- - The use of spacing, conventional signs and certain typographical devices aid to understand texts and read texts correctly.	18 hrs.
Unit 3	Kind of Sentences— Different types of sentences- Declarative, Interrogative, Imperative, Exclamatory. Tense – Present, Past and Future Singular – Plural Speaking/Writing- Pre-, While- and Post Reading model – comprehension with integration of skills (Factual ,Inference ,Vocabulary ,Experience)	18 hrs.
Unit 4	Filling Forms- Railway reservation Bank challans, forms DD,cheques Minutes – Preparing Minutes Types of Advertisements and Advertising ethics Topics for Student Presentations: a. Creating an advertisement/visualization b. Enacting an advertisement in a group.	18 hrs.
Unit 5	All the World’s a Stage- William Shakespeare The Story of my Experiments with Truth (5 – 26) -M K Gandhi’s Autobiography Child –Prem Chand	18 hrs.

Books for Study:

CLIL -- Module 1

<https://tnsche.tn.gov.in/TANII-CLIL.html>.

M K Gandhi's Autobiography: *The Story of my Experiments with Truth* (5 – 26) Ahmedabad, Navjivan Press)

Books for Reference:

Bernet, John R, Mass Communication, an Introduction. New Jersey: Prantice Hall, 1989.

Eastwood, John. (2005) Oxford Practice Grammar. Oxford, OUP.

Roy Pascal, Design and Truth in Autobiography.

Renu Gupta, A Course in Academic Writing (New Delhi: Orient BlackSwan, 2010

R.K.Bansal and J.B.Harrison, Spoken English: A Manual of Speech and Phonetics (New Delhi: Orient BlackSwan, 4th edn., 2013).

Stanley J. Baran and Davis, Mass Communication Theory: Foundations, Ferment and Future. Boston: Wadsworth Cengage Learning, 2012.

V.S. Gupta, Communication and Development. New Delhi: Concept Publication, 2000.

Website References:

<https://www.englishpractice.com/topics/common-mistakes/>

<https://englishwithmahure.blogspot.com/2013/08/assertive-and-exclamatory-sentences.html>

<https://www.grammarly.com>

<https://www.englishgrammar.org>

Pedagogy

Chalk and Talk , PPT, Group Discussion, Seminar, Puzzle, Cross Word, Word Power ,Pep Talk, Quiz and Tutorial.

LESSON PLAN

Unit	Description	Hrs	Activity	Mode
I	a. Prelude— understanding of the different ways in which the words in the language are classified	3	1 to 4	Chalk and Talk , PPT, Group Discussion, Seminar,
	b. Parts of Speech— All words in English can be classified into eight classes called parts of speech based on the work they do in a sentence : noun ,pronoun,	6		
	c. verb,	3		
	d. adjective	3		
	e. Vocabulary— New Words with its meaning ,form and use	3		
II	a. Listening Comprehension- Effects of Imperialism. Speaking-- Stress and Intonation for content and function words , Contractions with pronouns and verbs.	6	5 to 27	Chalk and Talk , PPT, Group Discussion, Seminar,
	b. Reading- - Vocabulary, photo gallery for vocabulary development	6		
	c. Punctuation- - The use of spacing, conventional signs and certain typographical devices aid to understand texts and read texts correctly.	6		
III	a. Kind of Sentences— Different types of sentences- Declarative, Interrogative, Imperative, Exclamatory.	6	28 to 48	Chalk and Talk , PPT, Group Discussion, Seminar,
	b. Tense – Present, Past and Future	6		
	c. Singular – Plural	3		
	d. Speaking/Writing- Pre-,While- and Post Reading model – comprehension with integration of skills (Factual ,Inference ,Vocabulary ,Experience)	3		
IV	a. Filling Forms- Railway reservation Bank challans, forms DD,cheques	6	49 to 63	Chalk and Talk , PPT, Group Discussion, Seminar,
	b. Minutes	6		
	c. Types of Advertisements and Advertising ethics	6		
	Topics for Student Presentations: a. Creating an advertisement/visualization b. Enacting an advertisement in a group.			
V	a. All the World's a Stage - Shakespeare	4		Lecture method
	b. The Story of my Experiments with Truth (5 – 26) -M K Gandhi's Autobiography	9		
	c. Child –Prem Chand	5		

COURSE LEARNING OUTCOMES:

	CLO Statement	Knowledge level
CLO1	Use proper Parts of Speech while framing simple sentences	Up to K3
CLO2	Express practical skills of various types of writing dialogues and comprehend content in English	Up to K2
CLO3	Use proper tense forms in sentences and Classify kinds of sentences; convert from one type to another.	Up to K3
CLO4	Fill different challans , issue cheques, fill railway form in real life contexts and prepare advertisements on their own.	Up to K3
CLO5	Appreciate a literary work for its genre and evaluating ideas. To use language skills necessary for social,academic and professional purposes	Up to K4

Mapping with Programme Outcomes:

	CLO1	CLO2	CLO3	CLO4	CLO5
PO1	-	-	-	-	-
PO2	-	-	-	-	-
PO3	3	3	2	2	3
PO4	2	3	2	2	3
PO5	-	-	-	-	-
PO6	-	-	-	-	-

Advance Application - 3, Intermediate Level - 2, Basic Level -1

Formative - Blue Print**Articulation Mapping - K Levels with Courses Learning Outcomes (CLOs)**

Sl. No	CLOs	K- Level	Section A		Section B	Section C (Either/or Choice)	Section D (Open Choice)	Total
			MCQs		Short Answers			
			No. of Questions	K LEVEL	No. of Questions			
1	CLO 1	Up to K 3	2	K1& K2	1(K1)	1(K2&K2)	2(K3&K3)	
2	CLO 2	Up to K 2	2	K1& K2	2(K1)	1(K1&K1)	1(K2)	
No. of Questions to be asked			4		3	4	3	15
No. of Questions to be answered			4		3	2	2	12
Marks for each question			1		2	5	10	
Total Marks for each section			4		6	10	20	40

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B Short Answers	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	2	6	10	--	18	30.00	30
K2	2	-	10	10	22	36.66	37
K3	-	-	-	20	20	33.33	33
K4	-	-	-	-	-		
Total Marks	4	6	20	30	60	99.99	100%

Summative - Blue Print

Mapping with Courses Learning Outcomes (CLOs)

Units	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO 1	Up to K 3	2	K1or K2	1	K1	2 (K2&K2)	1(K3)
2	CLO 2	Up to K 2	2	K1or K2	1	K1	2 (K1&K1)	1(K2)
3	CLO 3	Up to K 3	2	K1or K2	1	K2	2 (K3&K3)	1(K3)
4	CLO 4	Up to K 3	2	K1or K2	1	K2	2 (K3&K3)	1(K3)
5	CLO 5	Up to K 4	2	K1or K2	1	K2	2 (K4&K4)	1(K4)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (Short Answer)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	5	4	10	-	19	15.83	16
K2	5	6	10	10	31	25.83	26
K3	-	-	20	30	50	41.66	41
K4	-	-	10	10	20	16.68	17
Total Marks	10	10	50	50	120	100	100%

<i>DEPARTMENT OF ENGLISH</i>				<i>CLASS: I B.A. / B.Sc.</i>				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
II	Part - II		English-II	3	6	25	75	100

Course Objectives (COs)

<i>Course Objectives</i>
➤ To expose language skills through core subjects,
➤ To recognise, locate and infer subject verb agreement in number. Infer use of Present and Past Continuous tense, use 'will' and 'going to' in context (related to the domain).
➤ To recognize, sort, reproduce, pronounce letters/sound "p, b, th, v, w, and 'c' with its corresponding pronunciations as 's', 'k' and 'ch 'tion "appropriately from the context given in the passage.
➤ To retrieve naming, descriptive, action words, kinds of sentences learnt. to prepare dialogues and Reports on their own.
➤ To appreciate and analyze a genre on their own

Unit	<i>Content and Language Integrated Learning to Enhance Communication Skills- Course Contents</i>	Hours
Unit 1	Prelude – Explain and share information related to the domain. Vocabulary – New words with it forms meaning and use. Paragraphing – To identify Topic sentence, supporting ideas, and concluding idea./ To use the linkers to organize a paragraph.	18 hrs.
Unit 2	Grammars – Present continuous , past continuous, Command form (imperatives) ,Will / going to Speaking\Writing – Identify the action words and underline them. Imagine that Muthu is performing the activity in front of you now and give a running commentary using the present continuous form. Subject-Verb Agreements – Agree in number	18 hrs.
Unit 3	Listening - pronounce letters/sound "p, b, th, v, w, and 'c' with its corresponding pronunciations as 's', 'k' and 'ch 'tion "appropriately Reading - pronounce letters/sound "p, b, th, v, w, and 'c' with its corresponding pronunciations as 's', 'k' and 'ch 'tion "appropriately Pronunciations - introduces /b/ and /P/ "tion", "sh", TH	18 hrs.
Unit 4	Key Functions – Asking for favour, making suggestions Speaking – Roll play , telephonic conversation – use of phrases and closing a call News Report	18 hrs.
Unit 5	Mending Wall: Robert Frost The Power of Prayer – A P J Abdul Kalaam The Echoing Green – William Blake Young Goodman Brown – Hawthorne.	18 hrs.

Books for Study: CLIL –CONTENT AND LANGUAGE INTEGRATED LEARNING TO ENHANCE COMMUNICATION SKILLS, SEMESTER - 2 <https://tnsche.tn.gov.in/TANII-CLIL.html>

Books for Reference:

Bernet, John R, *Mass Communication, an Introduction*. New Jersey: Prantice Hall, 1989.

Eastwood, John. (2005) *Oxford Practice Grammar*. Oxford, OUP

Renu Gupta, *A Course in Academic Writing* (New Delhi: Orient BlackSwan, 2010). R.K. Bansal and J.B. Harrison, *Spoken English: A Manual of Speech and Phonetics* (New Delhi: Orient BlackSwan, 4th edn., 2013).

Stanley J. Baran and Davis, *Mass Communication Theory: Foundations, Ferment and Future*. Boston: Wadsworth Cengage Learning, 2012.

V.S. Gupta, *Communication and Development*. New Delhi: Concept Publication, 2000.

Website Reference:

<https://www.englishpractice.com/topics/common-mistakes/>

<https://englishwithmahure.blogspot.com/2013/08/assertive-and-exclamatory-sentences.html>

<https://www.grammarly.com>

<https://www.englishgrammar.org>

Pedagogy

Chalk and Talk , PPT, Group Discussion, Seminar, Puzzle, Cross Word, Word Power ,Pep Talk, Quiz and Tutorial.

LESSON PLAN

Unit	Description	Hrs	Activity	Mode
I	a. Prelude – Explain and share information related to the domain.	4	1 to 9	Chalk and Talk
	b. Vocabulary – New words with it forms meaning and use.	4		PPT,
	c. Paragraphing – To identify Topic sentence, supporting ideas, and concluding idea.	5		Group
	d. To use the linkers to organize a paragraph.	5		Discussion,
II	a Grammars – Present continuous , past continuous,	3	10 to 22	Chalk and Talk
	b. Command form (imperatives)	3		PPT,
	c. Will / going to	3		Group
	d. Speaking\Writing – Identify the action words and underline them.	3		Discussion,
	e. Giving a running commentary using the present continuous form.	2		
	f. Subject-Verb Agreements – Agree in number	4		
III	a. Listening - pronounce letters/sound “p, b, th, v, w, and ‘c’ with its corresponding pronunciations as ‘s’, ‘k’ and ‘ch ’tion ”appropriately	6	23 to 34	Chalk and Talk
	b. Reading - pronounce letters/sound “p, b, th, v, w, and ‘c’ with its corresponding pronunciations as ‘s’, ‘k’ and ‘ch ’tion ”appropriately	6		PPT,
	c. Pronunciations - introduces /b/ and /P/ “tion”, “sh”, TH	6		Discussion,
IV	a. Key Functions – Asking for favour, making suggestions	4	35 to 41	Chalk and Talk
	b. Speaking – Roll play ,	4		Group
	c. telephonic conversation – use of phrases and closing a call	4		Discussion,
	d. News Report – Preparing different types of reports and presenting it	6		Seminar
V	a. Mending Wall: Robert Frost	4		Lecture Method
	b. The Power of Prayer – A P J Abdul Kalaam	6		and Tutorial
	c. The Echoing Green – William Blake	4		
	d. Young Goodman Brown – Hawthorne.	4		

COURSE LEARNING OUTCOMES:

	CLO Statement	Knowledge level
CLO1	Use linkers to compose a coherent paragraph and to examine language skills through core subjects	K3
CLO2	Use singular, plural, present and past tenses. 'will' and 'going to' to engage in meaningful conversations and writing tasks	K3
CLO3	Classify appropriate pronunciation for "c" as "s", "k" and "ch" and classify letters / sound "p, b, th, v, w, tion" appropriately.	K2
CLO4	Demonstrate practical skills of various types of media writing and reports Use appropriate expressions, ask for favor, offer suggestions and engage in meaningful telephonic conversations	K3
CLO5	Appreciate a literary work for its genre and evaluating ideas.	K4

Mapping with Programme Outcomes:

	CLO1	CLO2	CLO3	CLO4	CLO5
PO1	-	-	-	-	-
PO2	-	-	-	-	-
PO3	3	2	3	3	3
PO4	3	2	3	3	3
PO5	-	-	-	-	-
PO6	-	-	-	-	-

Advance Application - 3, Intermediate Level - 2, Basic Level -1

Formative - Blue Print**Articulation Mapping - K Levels with Courses Learning Outcomes (CLOs)**

Sl. No	COs	K- Level	Section A		Section B	Section C (Either/or Choice)	Section D (Open Choice)	Total
			MCQs		Short Answers			
			No. of Questions	K LEVEL	No. of Questions			
1	CLO 1	Up to K 3	2	K1& K2	1(K1)	2 (K2&K2)	2(K3)	
2	CLO 2	Up to K 3	2	K1& K2	2(K1)	2 (K1&K1)	1(K2)	
No. of Questions to be asked			4		3	4	3	15
No. of Questions to be answered			4		3	2	2	12
Marks for each question			1		2	5	10	
Total Marks for each section			6		6	10	20	40

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B Short Answers	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	2	6	10	--	18	30.00	30
K2	2	-	10	10	22	36.66	37
K3	-	-	-	20	20	33.33	33
K4	-	-	-	-	-	-	-
Total Marks	4	6	20	30	60	99.99	100%

**Summative - Blue Print
Mapping with Courses Learning Outcomes (CLOs)**

Units	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO 1	Up to K 3	2	K1 or K2	1	K1	2 (K2&K2)	1(K3)
2	CLO 2	Up to K 3	2	K1 or K2	1	K1	2 (K2&K2)	1(K3)
3	CLO 3	Up to K 2	2	K1 or K2	1	K2	2 (K1&K1)	1(K2)
4	CLO 4	Up to K 3	2	K1 or K2	1	K2	2 (K3&K3)	1(K3)
5	CLO 5	Up to K 4	2	K1 or K2	1	K2	2 (K4&K4)	1(K4)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (Short Answer)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	5	4	10	-	19	15.83	16
K2	5	6	10	10	31	25.83	26
K3	-	-	20	30	50	41.66	41
K4	-	-	10	10	20	16.68	17
Total Marks	10	10	50	50	120	100	100%

THE MADURA COLLEGE (AUTONOMOUS), MADURAI-11

DEPARTMENT OF ENGLISH

VISION OF THE DEPARTMENT

To make students comprehend the written and spoken forms of English.

To make students familiar with British literature, Indian writing in English, American Literature, Canadian, Australian, African and Continental Literature and English Language Teaching and Linguistics.

MISSION

- To decolonize the English studies, introduce Indic thought and expose the students to the spiritual masterpieces of India.
- To introduce new courses - Journalism, Translation Studies, and Indian Literature in English Translation.

Programme Educational Objectives (PEOs)

After successful completion of the programme the students will be able to:

S. NO.	Programme Educational Objectives
PEO1	Provide a framework to peer the subject as a bridge to the world by recognizing the different conditions in pluralistic society.
PEO2	Assimilate the ability, balance harmony and inclusiveness: Identify and define aspects or attributes of English Literature.
PEO3	Provide a frame of reference for maintaining national standards with international compatibility of learning outcomes of English Literature and academic standards to ensure global competitiveness, and to facilitate student/graduate mobility;
PEO4	Formulate outcomes that are responsive to social and technological changes in order that the pedagogy will meet students' needs arising from the changes. LOCF encourages effective use of new technologies as tools for learning and provide a balance between what is common to the education of all students and the kind of flexibility and openness required for education;
PEO5	Provide higher education institutions an important point of reference for designing teaching-learning strategies, assessing student learning levels, and periodic review of programmes and academic standards for English Literature with shift from domain knowledge to processes of realising the outcomes;
PEO6	Provide HEI as a developmental approach through LOCF that would accommodate social needs and provide students a clear direction of learning.

The programme learning outcomes

The student graduating with the B.A. Degree should be able to:

NO	PLOs
PO- 1	Integrate learned skills and knowledge derived from the study of the humanities and/or the arts and other related disciplines, acquiring the necessary depth and breadth required for a transdisciplinary perspective.
PO- 2	Demonstrate proficiency in using disciplinary-appropriate methods for research, critical analysis, creative work or professional performance.
PO-3	Communicate conclusions, interpretations, and implications clearly, concisely, and effectively, both orally and in writing for different types of audiences.
PO- 4	Articulate and apply values, principles, ethics and ideals derived from an integrated understanding of their areas of study and demonstrate awareness of current societal and environmental challenges and ways of mitigating them.
PO- 5	Use modern tools, resources and software and be abreast with the emerging trends in their disciplinary area and practice lifelong learning.

Programme Specific Learning Outcomes (PSOs) with Graduate Attributes

S. NO.	PSOs	Graduate Attributes
PSO 1	demonstrate a set of basic skills in literary communication and explication of literary practices and process with clarity	<i>Knowledge Base</i>
PSO 2	analyze various literary genres and stylistic variations and write critically and with imagination.	<i>Problem Analysis & Investigation</i>
PSO 3	evaluate literary texts as a field of study and as part of the wider network of local and global culture	<i>Communication Skills & Design</i>
PSO 4	systematically analyze the existing scholarship and expand critical questions and the knowledge base in the field of English studies using digital resources.	<i>Individual and Team Work</i>
PSO 5	cultivate a better understanding of values – both literary values that aide us in literary judgment and also values of life at all stages and apply it appropriately.	<i>Professional Ethics and equity</i>
PSO 6	channelize the interests of the students in a better way and make more meaningful choices regarding career after completion of graduate programme	<i>Life Long Learning</i>

Qualification for Admission

Candidates should have passed the Higher Secondary Examination conducted by the Board of Higher Education, Government of Tamilnadu, CBSE& ICSE or any other examination approved by Madurai Kamaraj University as equivalent.

Duration of the Course

The students shall undergo prescribed course of study for the period of three academic years under CBCS semester pattern with outcome based education.

Medium of Instruction: English

System: Choice Based Credit System with Outcome Based Model

Courses of Study with Credit Distribution

Part	Category	No. of Courses	No. of Credits
I	Language (Tamil)	4	12
II	English	4	12
III	Allied	4	20
	Core	14	59
	Elective	4	18
	Skill Based Elective	4	8
IV	Non Major Elective	2	4
Common	Value Education	1	3
	Environmental Studies	1	3
V	Extension Activity	1	1
	Total	39	140

Evaluation

Internal (Formative)	: 25 marks
External (Summative)	: 75 marks
Total	:100 marks

Continuous Internal Assessment : 25 Marks

Components	Marks
Test (Average of two tests) Conducted for 40 marks and converted into 10 marks)	10
Seminar / Quiz	5
Documentation/ICT based Assignment/ Mini Projects/Assignments	5
Attendance	5
Total	25

- ✓ Centralized system of Internal Assessment Tests
- ✓ There will be a two internal assessment tests
- ✓ Duration of Internal assessment test will be 2 hours
- ✓ Students shall write retest on the genuine grounds if they are absent in either Test I or Test II with the approval of HoD and the Principal

Question Paper Pattern for Internal Test

Section	Marks
A- Multiple Choice Questions (4x1mark)	4
B- Short Answers (3X2 mark)	5
C- Either/Or (2x5marks)	10
D- Open Choice (2/3 *10 Marks)	20
Total	40

Conducted for 40 marks and converted into 10 marks

Question Paper Pattern for External Examination

Section		Marks
A- Multiple Choice Questions	(10x1mark)	10
B- Short Answers	(5x2 mark)	10
C- Either/Or type	(5x5marks)	25
D- Open Choice type	(3out of 5 X10Marks)	30
Total		75

In respect of external examinations passing minimum is 35% for Under Graduate Courses and in total, aggregate of 40%.

The curriculum is revised to suit the changing trends by propagation of ideas ensuring professional growth through innovative methods of teaching. The curriculum is strengthened through the latest amendments and revisions as per UGC and TANSCHÉ norms.

THE MADURA COLLEGE (Autonomous)
DEPARTMENT OF ENGLISH (SF)
The Curriculum for B.A (English) (as per TANSCH Norms)
(Semester – I)

PART	STUDY COMPONENTS	SUBJECT CODE	TITLE OF THE PAPER	HOURS	CREDIT
I	Tamil/Sanskrit/Hindi		LANGUAGE-1	6	3
II	English I		ENGLISH –I	6	3
III	MCT1	20U1NMC1	BRITISH LITERATURE I	5	3
	MCT2	20U1NMC2	BRITISH LITERATURE II	4	2
	AT1/1	20U1NAC1	SOCIAL HISTORY OF ENGLAND	6	5
IV	VE&PE	20U1NSM1		3	3
				30	19

(Semester – II)

PART	STUDY COMPONENTS	SUBJECT CODE	TITLE OF THE PAPER	HOURS	CREDIT
I	Tamil/Sanskrit/Hindi		LANGUAGE-II	6	3
II	English II		ENGLISH –II	6	3
III	MCT3	20U2NMC3	INDIAN WRITING IN ENGLISH	5	4
	MCT4	20U2NMC4	ADVANCED ENGLISH GRAMMAR	4	4
	AT1/2	20U2NAC2	HISTORY OF ENGLISH LITERATURE	6	5
IV	E&GS	20U2NSM2		3	3
	Extension	20U2NVE1			1
				30	23

(Semester – III)

PART	STUDY COMPONENTS	SUBJECT CODE	TITLE OF THE PAPER	HOURS	CREDIT
I	Tamil/Sanskrit/Hindi		LANGUAGE-III	6	3
II	EnglishIII		ENGLISH-III	6	3
III	MCT5	20U3NMC5	AMERICAN LITERATURE	4	3
	MCT6	20U3NMC6	INDIAN LITT. IN ENG.	4	2
	AT2/3	20U3NAC3	LITERARY GENRES AND	6	5
IV	S.B.Elective1	20U3NSM3	ENGLISH FOR COMPETITIVE EXAMINATION	2	2
	NME-I	20U3NNM1	PERSONALITY DEVELOPMENT	2	2
				30	20

(Semester – IV)

PART	STUDY COMPONENTS	SUBJECT CODE	TITLE OF THE PAPER	HOURS	CREDIT
I	Tamil/Sanskrit/Hindi		LANGUAGE-IV	6	3
II	English IV		ENGLISH- IV	6	3
III	MCT7	20U4NMC7	INTRODUCTION TO ENGLISH LANGUAGE & LINGUISTICS	4	3
	MCT8	20U4NMC8	AMERICAN LITERATURE (DRAMA&FICTION)	4	2
	AT2/4	20U4NAC4	ECO LITERATURE	6	5
IV	SBE–II	20U4NSM4	INTRODUCTION TO COMPARATIVE LITT.	2	2
	NME2	20U4NNM2	CAREER GUIDANCE	2	2
				30	20

(Semester – V)

PART	STUDY COMPONENTS	SUBJECT CODE	TITLE OF THE PAPER	HOURS	CREDIT
III	MCT9	20U5NMC9	POST COLONIAL LITERATURE IN ENGLISH	6	6
III	MCT10	20U5NMC10	WOMEN'S WRITING IN ENGLISH& IN TRANSLATION	6	6
III	MCT11	20U5NMC11	INTRODUCTION TO LITERARY CRITICISM	6	6
III	MET1	20U5NME1	*	6	5
III	MET2	20U5NME2	*	4	4
IV	Sill Based-Elective –3	20U5NSM5	MASS COMMUNICATION & JOURNALISM	2	2
				30	29

(Semester – VI)

PART	STUDY COMPONENTS	SUBJECT CODE	TITLE OF THE PAPER	HOURS	CREDIT
III	MCT12	20U6NMC12	SHAKESPEARE	6	6
III	MCT13	20U6NMC13	COTEMPORARY WORLD LITERATURE IN ENGLISH	6	6
III	MCT14	20U6NMC14	ENGLISH LANGUAGE TEACHING	6	6
III	MET3	20U6NME3	*	6	5
III	MET4	20U6NME4	*	4	4
IV	SB4	20U6NSM6	COMMUNICATIVE ENGLISH.	2	2
				30	29

*List of Major Elective Papers offered by the department:

1.	Myth and Literature
2.	Film and Literature
3.	Fictional Art
4.	A Field of Adaption Studies
5.	English Teaching Methods and Materials
6.	Translation - Basic Concepts and Practice
7.	Methods and Approaches for English Teaching
8.	Transferring the linguistic entities

THE MADURA COLLEGE (Autonomous)
DEPARTMENT OF ENGLISH (SF)
The Curriculum has been framed for B.A. as per TANSCH Norms

B.A. (English)

Course Structure under CBCS & OBE Pattern with effect from the
 Academic Year 2020-21 Onwards

I Year B.A English (Semester – I)

Part	Study components	Subject code	Title of the paper	Hours	Credit
I	Tamil /Sanskrit/Hindi		LANGUAGE-1	6	3
II	English I		ENGLISH –I	6	3
III	MCT1	20U1NMC1	BRITISH LITERATURE I	5	3
	MCT2	20U1NMC2	BRITISH LITERATURE II	4	2
	AT1/1	20U1NAC1	SOCIAL HISTORY OF ENGLAND	6	5
IV	VE&PE	20U1NSM1		3	3
				30	19

**Semester wise Mapping of Courses with
 Programme Learning Outcomes (POs)**

	Programme Learning Outcomes	BRITISH LITERATURE I	BRITISH LITERATURE II	SOCIAL HISTORY OF ENGLAND
G R A D U A T E A T R I B U T E S	PSO 1 (Knowledge Base)	2	2	3
	PSO 2 (Problem Analysis & Investigation)	1	1	2
	PSO 3 (Communication Skills & Design)	1	1	2
	PSO 4 (Individual and Team Work)	3	3	2
	PSO 5 (Professionalism Ethics and equity)	1	1	2
	PSO 6 (Life Long Learning)	3	3	3

3- Advanced Application 2- Intermediate Development 1-Introductory Level

DEPARTMENT OF ENGLISH				CLASS: I B.A. English				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
I	MCT1	20U1NMC1	British Literature – I	3	5	25	75	100

Course Objectives (COs)

Course Objectives
• To examine the significance of the prevalent social customs from 15th -18th century.
• To outline the Old English period of British Literature.
• To identify the attributes ledged in the real life experiences.
• To indicate the modern way of living referring to the lifestyle of British people.
• To critically examine various fiction and drama development in British Literature.

Units	Course Contents	Hours
1	Introduction to British Literature Old and Middle English Literature - English Renaissance & Restoration age- Introduction to 18th century	15
2	British Prose Francis Bacon (Of Friendship)- Addison(Days with Sir Roger De Coverley) - Charles Lamb (The South Sea House & In Praise of Chimney Sweepers- from the “Essays of Elia”)	15
3	British Poetry Geoffrey Chaucer (Prologue To The Canterbury Tales) - Edmund Spenser(Prothalamion) – Andrew Marwell (To His Coy Mistress) – John Donne (A Valediction: Forbidding Mourning)	15
4	British Drama Christopher Marlowe (Dr.Faustus) - Richard Brinsley Sheridan (The Rivals)	15
5	British Fiction Samuel Richardson(Pamela) -Oliver Goldsmith (The Vicar of Wakefield)	15

Books for Study:

1. Goldsmith, Oliver. *The Vicar of Wakefield*. London, 1908.
2. Defoe, Daniel. *Robinson Crusoe*. Newyork. 2007

Books for Reference :

1. Boulton, Marjorie. *The Anatomy of Drama*. Luthania, 1979.
2. Esslin, Martin. *An Anatomy of Drama*. London, 1976.

Web Resources:

<https://www.quora.com>

Pedagogy

Illustrations, Paper Presentation, and Role Play.

LESSON PLAN

UNIT	DESCRIPTION	HOURS	MODE
I-Introduction to British Literature	a) Introduction to Old and Middle English Literature	4	Descriptive method PPT presentation
	b) English Renaissance and its causes	4	
	c) Impact on Restoration age	3	
	d) 18 th century and its influences	4	
II-British Prose	a) Introduction to essayist Francis Bacon and his essay "Of Friendship"	4	PPT presentation Textual Reading
	b) Addison and his work- "De Coverley Papers"	4	
	c) Study of Charles Lamb	3	
	d) Analysis of Lamb's essays- "The South Sea House" & "In Praise of Chimney Sweepers"	4	
III-British Poetry	a) Prologue of Chaucer's "The Canterbury Tales"	4	Visual Aids Flash cards Descriptive method
	b) Celebrate Spenser's "Prothalamion"	4	
	c) Aesthetic sense in Marvel's "To His Coy Mistress"	3	
	d) Poetic style of John Donne's "A Valediction: Forbidding Mourning"	4	
IV- British Drama	a) Study of Marlowe and his contemporaries.	4	Screening of plays Role play
	b) Dr. Faustus - Critical reading of Marlowe's "Dr. Faustus"	4	
	c) Features of Comedy of manners in Sheridan's "The Rivals"	3	
	d) Analytical reading of "The Rivals"	4	
V- British Fiction	a) Life and works of Daniel Defoe	2	Assignments Thematic Analysis
	b) Reading of Daniel Defoe's Robinson Crusoe.	6	
	c) Literary biography of Oliver Goldsmith	2	
	d) Study on Goldsmith's masterpiece "The Vicar of Wakefield"	5	

Course Learning Outcome:

	CLO Statement	Knowledge level
CLO1	Identify key elements of the period of British Literature	K3
CLO2	Recall poetry, fiction and other literary pieces for historical contexts	K2
CLO3	Analyse the literary devices used in the literary pieces	K4
CLO4	Estimate the various genres of British Literature	K3
CLO5	Compare and contrast the literature of the Augustan age with the Classical age	K4

Mapping with PSO:

	CLO1	CLO2	CLO3	CLO4	CLO5
PSO1	1	3	1	1	-
PSO2	3	3	3	3	2
PSO3	3	3	3	3	3
PSO4	2	-	1	-	1
PSO5	-	-	-	-	1
PSO6	2	-	1	1	2

Advance application-3, Intermediate Level-2, Basic Level-1.

Mapping with PO:

	CLO1	CLO2	CLO3	CLO4	CLO5
PO1	3	3	3	3	2
PO2	3	3	3	3	2
PO3	2	2	3	3	2
PO4	3	2	3	3	3
PO5	-	-	-	-	-

Advance Application - 3, Intermediate Level - 2, Basic Level -1

Formative - Blue Print**Articulation Mapping - K Levels with Courses Learning Outcomes (CLOs)**

Sl. No	CLOs	K- Level	Section A		Section B	Section C (Either/or Choice)	Section D (Open Choice)	Total
			MCQs		Short Answers			
			No. of Questions	K LEVEL	No. of Questions			
1	CLO 1	Up to K 3	2	K1 & K2	1(K1)	1(K2&K2)	2(K3&K3)	
2	CLO 2	Up to K 2	2	K1 & K2	2(K1)	1(K1&K1)	1(K2)	
No. of Questions to be asked			4		3	4	3	15
No. of Questions to be answered			4		3	2	2	12
Marks for each question			1		2	5	10	
Total Marks for each section			4		6	10	20	40

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B Short Answers	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	2	6	10	--	18	30.00	30
K2	2	-	10	10	22	36.66	37
K3	-	-	-	20	20	33.33	33
K4	-	-	-	-	-		
Total Marks	4	6	20	30	60	99.99	100%

Summative - Blue Print

Mapping with Courses Learning Outcomes (CLOs)

Units	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO 1	Up to K3	2	K1or K2	1	K1	2 (K2&K2)	1(K2)
2	CLO 2	Up to K2	2	K1or K2	1	K1	2 (K2&K2)	1(K2)
3	CLO 3	Up to K3	2	K1or K2	1	K2	2 (K3&K3)	1(K3)
4	CLO 4	Up to K3	2	K1or K2	1	K2	2 (K3&K3)	1(K3)
5	CLO 5	Up to K4	2	K1or K2	1	K2	2 (K3&K3)	1(K4)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (Short Answer)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	5	4	-	-	9	7.50	8
K2	5	6	20	20	51	42.50	42
K3	-	-	30	20	50	41.66	42
K4	-	-	-	10	10	8.39	8
Total Marks	10	10	50	50	120	100	100%

Course Designer : 1. Prof. L.R. Sangeetha Priya

DEPARTMENT OF ENGLISH				CLASS: I B.A. English				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
I	MCT2	20U1NMC2	British Literature – II	2	4	25	75	100

Course Objectives (Cos)

Course Objectives
<ul style="list-style-type: none"> To examine British Literary movement, literary work and background.
<ul style="list-style-type: none"> To classify various types of prose works from Addison to Charles Lamb and trace the gradual development of prosaic writing.
<ul style="list-style-type: none"> To shape the sensibility of Poets in the Poetic Style
<ul style="list-style-type: none"> To analyse and evaluate various fiction and drama development in British Literature.
<ul style="list-style-type: none"> To identify texts of Romantic Age.

Units	Course Contents	Hours
1	GENERAL FEATURES Neo Classical Period –Romantic Period- Victorian Period– Modern & Post-Modern Age	12
2	BRITISH PROSE Thomas de Quincy (Confessions of an English Opium Eater) - Charles Lamb (A Dissertation upon Roast Pig) – A.G. Gardiner (The Rule of the Road)	12
3	BRITISH POETRY Gerard Manley Hopkins (The Windhover) - Wilfred Owen (The send off) Mathew Arnold (Dover Beach)	12
4	BRITISH DRAMA T.S. Eliot (The Murder in the Cathedral) – John Galsworthy (Justice)	12
5	BRITISH FICTION Charlotte Bronte (Jane Eyre) – Charles Dickens (Oliver Twist)	12

Books for Study:

- Trussler, Simon. *20th Century Drama*. Michigan, 1985.
- Peck, John and Martin Coyle. *A Brief History of English Literature*. London, 2013.

Books for Reference:

- Boulton, Marjorie. *The Anatomy of Drama*. Luthania, 1976.
- Esslin, Martin. *An Anatomy of Drama*. London, 1976.

Web Resources:

www.britannica.com
www.canbeidge.com

Pedagogy

PPT, Group Discussion, Seminar, Quiz

LESSON PLAN

UNIT	DESCRIPTION	HOURS	MODE
I-Introduction	a) General features of British Literature	2	Lecture method PPT presentation
	b) Neo-Classicism and its features	3	
	c) Writers of Romantic period	2	
	d) Study of Victorian era	3	
	e) Salient features of Modern and Post-modernism	2	
II-British Prose	a) Critical Analysis of Thomas de Quincy's Work	2	Descriptive method Interactive session
	b) Charles Lamb- an essayist	4	Flash cards
	c) Study of Lamb's "My Relations"	2	
	d) Study of A.G. Gardiner's "On The Rule Of the Road"	4	
III-British Poetry	a) An overview of the poets Hopkins, Owen and Chesterton	3	Visual Aids Flash cards
	b) Critical appreciation of "The Windhover"	3	Descriptive method
	c) Critical appreciation of "The Send Off"	3	
	d) Critical appreciation of "Dover Beach"	3	
IV- British Drama	a) Introduction to the genre- drama	2	Screening of plays
	b) Biography of T.S. Eliot	2	Role play
	c) A critical appraisal of Eliot's other works	2	Black-board usage
	d) Analytical reading of Eliot's Galsworthy's "Justice"	6	
V- British Fiction	a) Study of Bronte sisters	2	Assignments
	b) Background analysis of 19 th century' society	2	
	c) Critical acclaim of "Charles Dickens' Age"	2	
	d) Intense study of "Jane Eyre"	6	

Course Learning Outcome

	CLO Statement	Knowledge level
CLO1	Examine the various genres of English Literature	K1
CLO2	Use the Figurative and symbolic language of their own	K2
CLO3	Identify the various aspects of Epic Poems with reference to politics and religion.	K4
CLO4	Usage of medieval British drama themes	K3
CLO5	Analyze Literary skills like allegory and similes	K4

Mapping with PSO:

	CLO1	CLO2	CLO3	CLO4	CLO5
PSO1	1	3	1	1	2
PSO2	3	3	3	3	2
PSO3	3	3	3	3	3
PSO4	2	2	1	3	1
PSO5	2	3	2	-	1
PSO6	2	-	1	1	2

Advance application-3, Intermediate Level-2, Basic Level-1.

Mapping with PO:

	CLO1	CLO2	CLO3	CLO4	CLO5
PO1	3	3	3	3	3
PO2	3	3	3	3	3
PO3	3	3	3	2	2
PO4	2	3	2	2	2
PO5	-	-	-	-	-

Advance Application - 3, Intermediate Level - 2, Basic Level -1

Formative - Blue Print

Articulation Mapping - K Levels with Courses Learning Outcomes (CLOs)

Sl. No	CLOs	K- Level	Section A		Section B	Section C (Either/or Choice)	Section D (Open Choice)	Total
			MCQs		Short Answers			
			No. of Questions	K LEVEL	No. of Questions			
1	CLO 1	Up to K 3	2	K1& K2	1(K1)	1(K2&K2)	2(K3&K3)	
2	CLO 2	Up to K 2	2	K1& K2	2(K1)	1(K1&K1)	1(K2)	
No. of Questions to be asked			4		3	4	3	15
No. of Questions to be answered			4		3	2	2	12
Marks for each question			1		2	5	10	
Total Marks for each section			4		6	10	20	40

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B Short Answers	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	2	6	10	--	18	30.00	30
K2	2	-	10	10	22	36.66	37
K3	-	-	-	20	20	33.33	33
K4	-	-	-	-	-		
Total Marks	4	6	20	30	60	99.99	100%

Summative - Blue Print

Mapping with Courses Learning Outcomes (CLOs)

Units	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO 1	Up to K1	2	K1or K2	1	K1	2 (K2&K2)	1(K2)
2	CLO 2	Up to K2	2	K1or K2	1	K1	2 (K2&K2)	1(K2)
3	CLO 3	Up to K4	2	K1or K2	1	K2	2 (K3&K3)	1(K4)
4	CLO 4	Up to K3	2	K1or K2	1	K2	2 (K3&K3)	1(K3)
5	CLO 5	Up to K4	2	K1or K2	1	K2	2 (K3&K3)	1(K4)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (Short Answer)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	5	4	-	-	9	7.50	8
K2	5	6	20	20	51	42.50	42
K3	-	-	30	10	40	33.33	33
K4	-	-	-	20	20	16.66	17
Total Marks	10	10	50	50	120	100	100%

Course Designers: 1. Prof. R. Kalyani

2. Prof. S. Selva Ulaganathan

DEPARTMENT OF ENGLISH				CLASS: I B.A. English				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/ week	CIA	Ext	Total
I	AT1/1	20U1NAC1	Social History of England	5	6	25	75	100

Course Objectives (Cos)

Course Objectives
<ul style="list-style-type: none"> To identify the era- the medieval or middle period and the modern period of England from Political perspective.
<ul style="list-style-type: none"> To compare and contrast the socio-political history with the literary history of English to perceive how the land's literature reflects / refracts the nation's history.
<ul style="list-style-type: none"> To familiarize with the knowledge of socio-political history.
<ul style="list-style-type: none"> To identify, analyse, interpret and describe the critical ideas, values and themes that appear in literary and cultural texts of various genres.

Units	Course Contents	Hours
1	A Brief Outline of British History The Renaissance – Its impact on England -The Reformation – Cause and Effect- The Dissolution of Monasteries	18
2	The East Indian Company Puritanism - Restoration of England - Coffee-house life in London	18
	The Union of England and Scotland The Agrarian Revolution - The Industrial Revolution- The Methodist Movements	18
4	Humanitarian Movements The Chartist Act - The Reform Bills	18
5	The Victorian Age Development of Education in the Victorian England -Means of Transport and Communication – Post Modern Age in England	18

Books for study:

- Xavier, A.G. *An Introduction to the Social History of England*. Chennai, 2014
- Ashok, Padmaja. *The Social History of England*. Delhi, 2011.

Books for Reference:

Trevelyan, G.M. *The English Social History*. New York, 2011.
Briggs, Asa. *A Social History of England*. London, 1986.

Web Resources:

<https://www.cambridge.org>
<https://www.bl.uk/learning/online-resources>

PEDAGOGY:

Paper presentation, charts, joint productive activity

LESSON PLAN

UNIT	DESCRIPTION	15 HOURS	MODE
I. A Brief Outline of British History	a)The Renaissance period and its major changes	5	Descriptive method Comprehension booster
	b)Impact of Renaissance	4	
	c)The Reformation and its causes	5	
	d)The Dissolution of Monasteries	4	
II- The East Indian Company	a)The Puritan Age	4	Lecture method Historical anecdotes
	b)Pre-Restoration England	5	
	c)Post-Restoration England	5	
	d)Coffee-house in London	4	
III- The Union of England and Scotland	a)The Agrarian Revolution and its results	5	Historical references Visual aids
	b)The Industrial Revolution and its impact	5	
	c)Inventions during the Industrial revolution	4	
	d)The Methodist Movement	4	
IV- Humanitarian Movements	a)The Great Reform Acts	5	Flip charts Library references
	b)The Chartist Movement	5	
	c) Aftermath of Reform Bills	4	
	d) The Factory Act	4	
V- The Victorian Age	a)Development of education	5	Assingments
	b)Mode of communication	4	
	c)Means of transport	5	
	d)Post Modern Age in England	4	

Course Learning Outcomes:

	CLO Statement	Knowledge level
CLO1	Explain different types of historical sources and trace the beginning of social life of Restoration England.	K2
CLO2	Examine their secure knowledge of British, local and world history to provide a well-informed context for wider learning.	K2
CLO3	Classify the four main developments of Agrarian Revolution.	K3
CLO4	Analyse the development of science and industry in England during the Victorian era.	K4
CLO5	Categorize the characteristics and nuances of Victorian Age.	K3

Mapping withPSO:

	CLO1	CLO2	CLO3	CLO4	CLO5
PSO1	3	3	3	3	3
PSO2	3	1	1	2	3
PSO3	3	3	3	3	2
PSO4	2	2	-	2	-
PSO5	-	-	-	-	-
PSO6	1	-	-	1	-

Advance Application - 3, Intermediate Level - 2, Basic Level -1

Mapping with PO:

	CLO1	CLO2	CLO3	CLO4	CLO5
PO1	3	3	3	3	3
PO2	3	3	3	3	3
PO3	3	3	3	3	3
PO4	3	2	2	3	3
PO5	-	-	-	-	-

Advance Application - 3, Intermediate Level - 2, Basic Level -1

Formative - Blue Print

Articulation Mapping - K Levels with Courses Learning Outcomes (CLOs)

Sl. No	CLOs	K- Level	Section A		Section B	Section C (Either/or Choice)	Section D (Open Choice)	Total
			MCQs		Short Answers			
			No. of Questions	K LEVEL	No. of Questions			
1	CLO 1	Up to K 3	2	K1& K2	1(K1)	1(K2&K2)	2(K3&K3)	
2	CLO 2	Up to K 2	2	K1& K2	2(K1)	1(K1&K1)	1(K2)	
No. of Questions to be asked			4		3	4	3	15
No. of Questions to be answered			4		3	2	2	12
Marks for each question			1		2	5	10	
Total Marks for each section			4		6	10	20	40

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B Short Answers	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	2	6	10	--	18	30.00	30
K2	2	-	10	10	22	36.66	37
K3	-	-	-	20	20	33.33	33
K4	-	-	-	-	-		
Total Marks	4	6	20	30	60	99.99	100%

Summative - Blue Print
Mapping with Courses Learning Outcomes (CLOs)

Units	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO 1	Up to K2	2	K1or K2	1	K1	2 (K2&K2)	1(K2)
2	CLO 2	Up to K2	2	K1or K2	1	K1	2 (K2&K2)	1(K2)
3	CLO 3	Up to K3	2	K1or K2	1	K2	2 (K3&K3)	1(K3)
4	CLO 4	Up to K4	2	K1or K2	1	K2	2 (K3&K3)	1(K4)
5	CLO 5	Up to K3	2	K1or K2	1	K2	2 (K3&K3)	1(K3)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (Short Answer)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	5	4	-	-	9	7.50	8
K2	5	6	20	20	51	42.50	43
K3	-	-	30	20	50	41.66	41
K4	-	-	-	10	10	8.33	8
Total Marks	10	10	50	50	120	100	100%

Course Designers: 1. Prof. K. Vidhya

2. Prof. R. Hemamalini

Semester – II

Part	Study components	Subject code	Title of the paper	Hours	Credit
I	Tamil /Sanskrit/Hindi		LANGUAGE-II	6	3
II	English II		ENGLISH –II	6	3
III	MCT3	20U2NMC3	INDIAN WRITING IN ENGLISH	5	4
	MCT4	20U2NMC4	ADVANCED ENGLISH GRAMMAR	4	4
	AT1/2	20U2NAC2	HISTORY OF ENGLISH LITERATURE	6	5
IV	E&GS	20U2NSM2		3	3
	Extension	20U2NVE1			1
				30	23

**Semester wise Mapping of Courses with
Programme Learning Outcomes (PLOs)**

	Programme Learning Outcomes	<u>INDIAN WRITING IN ENGLISH</u>	<u>ADVANCED ENGLISH GRAMMAR</u>	History of English Literature
G R A D U A T E A T T R I B U T E S	PLO 1 (Knowledge Base)	2	3	3
	PLO 2 (Problem Analysis & Investigation)	2	3	3
	PLO 3 (Communication Skills & Design)	2	3	3
	PLO 4 (Individual and Team Work)	2	3	3
	PLO 5 (Professionalism Ethics and equity)	3	-	2
	PLO 6 (Life Long Learning)	3	2	3

3- Advanced Application 2- Intermediate Development 1-Introductory Level

DEPARTMENT OF ENGLISH				CLASS: I B.A. English				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
II	MCT3	20U2NMC3	Indian Writing in English	4	5	25	75	100

Course Objectives

Course Objectives
<ul style="list-style-type: none"> To associate students to major movements and figures of Indian Literature in English.
<ul style="list-style-type: none"> To demonstrate familiarity with a wide range of representative literary texts, critical aspects and commentaries in the Indian context.
<ul style="list-style-type: none"> To analyze the traditions of literature written in English in their social, cultural and historical context of texts and their relations with historical, social and political context.
<ul style="list-style-type: none"> To expose students to Indian Feminist writing and Indian Diaspora.
<ul style="list-style-type: none"> To build a spirit of patriotism and moral values in students through exposure to select Indian literary masterpieces.

Units	Course Contents	Hours
1	Concepts The Theme of Partition in Indian Fiction-Diasporic Writing-Indian Feminism and Subaltern Voices in Indian English Literature	15
2	Poetry Sri Aurobindho (The Bird of Fire) - Sarojini Naidu(The Indian Weavers) Toru Dutt(The Lotus)- Sujata Bhatt(A Different History)	15
3	Prose Pt.Jawaharlal Nehru (The Glory has Departed)-R.K.Narayan (The Doctor's Word) – A.P.J.AbdulKalam (A Mission for India)	15
4	Drama Rabindranath Tagore (Chandalika) - Mahesh Dattani(Seven Steps around the Fire)	15
5	Novel Khushwant Singh (Train to Pakistan) ManjuKapur (The Immigrant)	15

Books for Study:

Agarwal, K.A.*Indian Writing In English: A Critical Study*. New Delhi, 2018.

Books for Reference:

Iyengar, Srinivasa, K.R. *Indian Writing in English*, New York, 2012.

Web resources:

<https://www.shodhganga.inflibnet.ac.in>

<https://www.theculturetrip.com>

Pedagogy

Lecture, Pep Talk, Group Discussion, Power point Presentation, Quiz and Role play.

LESSON PLAN

UNIT	DESCRIPTION	15 Hrs	MODE
I. Concepts	a) Introduction to Pre-Independence Drama, Indian Fiction and subaltern Literature.	3	Classroom lecture
	b) Impart the significance of the diasporic and feminist writings.	4	
	c) The theme of partition in the light of Indian fiction	4	
	d) The impact of subaltern voices in the Indian literature.	4	
II-Poetry	a) Spiritual and cultural traditions of Sri Aurobindo's " <i>The Bird of Fire</i> ".	4	Descriptive Lecture PPT
	b) Feminist perspective of Toru Dutt's " <i>Lotus</i> ".	3	
	c) Indian lifestyle through Sarojini Naidu's " <i>The Indian Weavers</i> ".	4	
	d) Thematic concerns and philosophical leanings of Sujata Bhatt	4	
III- Prose	a) Biography and works of Jawaharlal Nehru, R. K. Narayan and A.P.J. Abdul Kalam	3	Classroom Lecture Quiz
	b) Insight into Jawaharlal Nehru's " <i>The Glory has Departed</i> ".	4	
	c) Themes and techniques of R.K. Narayan's " <i>The Doctors Word</i> ".	4	
	d) Universal appeals of A.P.J. Abdul Kalam's Mission for India	4	
IV- Drama	a) Introducing Tagore and his Works	2	Demonstrative method PPT
	b) Sociological approach to Tagore's " <i>Chandalika</i> ".	4	
	c) Introducing Mahesh Dattani and his Plays.	5	
	d) Ideological concepts of Mahesh Dattani's " <i>Seven Steps around the Fire</i> ".	4	
V- Novel	a) Introducing Kushwant Singh and his Works.	4	Assignments Seminar
	b) Patriotic spirit through Kushwant Singh's " <i>Train to Pakistan</i> ".	4	
	c) Introducing Works of Manju Kapur and her biography.	3	
	d) Diasporic perspective of Manju Kapur's " <i>The Immigrant</i> ".	4	

Course Learning Outcome:

	CLO Statement	Knowledge level
CLO1	Explain major genres of National eminence and literary tradition in the Indian Writing in English.	K2
CLO2	Examine the use of theatrical devices and acquire the skill of reading, rehearsing and performing a play.	K4
CLO3	Classify major social issues prevailing in the Indian milieu and develop a sense of moral responsibility and well-being.	K3
CLO4	Analyse how poetry impacts and shapes the quality of life in the Indian context.	K4
CLO5	Discover knowledge of the major texts and traditions of literature written in English in their social, cultural and historical context.	K3

Mapping with PSO:

	CLO1	CLO2	CLO3	CLO4	CLO5
PSO1	1	2	2	1	3
PSO2	2	3	3	3	2
PSO3	2	3	2	3	2
PSO4	2	3	3	3	3
PSO5	3	2	3	3	3
PSO6	2	3	3	2	2

Advance application-3, Intermediate Level-2, Basic Level-1.

Mapping with PO:

	CLO1	CLO2	CLO3	CLO4	CLO5
PO1	3	3	3	3	3
PO2	2	2	2	2	3
PO3	3	3	3	3	3
PO4	3	3	3	3	3
PO5	-	-	-	-	-

Advance Application - 3, Intermediate Level - 2, Basic Level -1

Formative - Blue Print
Articulation Mapping - K Levels with Courses Learning Outcomes (CLOs)

Sl. No	CLOs	K- Level	Section A		Section B	Section C (Either/or Choice)	Section D (Open Choice)	Total
			MCQs		Short Answers			
			No. of Questions	K LEVEL	No. of Questions			
1	CLO 1	Up to K 3	2	K1& K2	1(K1)	1(K2&K2)	2(K3&K3)	
2	CLO 2	Up to K 2	2	K1& K2	2(K1)	1(K1&K1)	1(K2)	
No. of Questions to be asked			4		3	4	3	15
No. of Questions to be answered			4		3	2	2	12
Marks for each question			1		2	5	10	
Total Marks for each section			4		6	10	20	40

- K1- Remembering and recalling facts with specific answers
K2- Basic understanding of facts and stating main ideas with general answers
K3- Application oriented- Solving Problems
K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B Short Answers	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	2	6	10	--	18	30.00	30
K2	2	-	10	10	22	36.66	37
K3	-	-	-	20	20	33.33	33
K4	-	-	-	-	-		
Total Marks	4	6	20	30	60	99.99	100%

Summative - Blue Print
Mapping with Courses Learning Outcomes (CLOs)

Units	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO 1	Up to K2	2	K1or K2	1	K1	2 (K2&K2)	1(K2)
2	CLO 2	Up to K4	2	K1or K2	1	K1	2 (K3&K3)	1(K4)
3	CLO 3	Up to K3	2	K1or K2	1	K2	2 (K3&K3)	1(K3)
4	CLO 4	Up to K4	2	K1or K2	1	K2	2 (K3&K3)	1(K4)
5	CLO 5	Up to K3	2	K1or K2	1	K2	2 (K2&K2)	1(K3)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

- K1- Remembering and recalling facts with specific answers
 K2- Basic understanding of facts and stating main ideas with general answers
 K3- Application oriented- Solving Problems
 K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (Short Answer)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	5	4	-	-	9	7.50	8
K2	5	6	20	10	41	34.16	34
K3	-	-	30	20	50	41.67	42
K4	-	-	-	20	20	16.67	16
Total Marks	10	10	50	50	120	100	100%

Course Designers : 1. Dr. R. Saradha
 2. Prof. R. Rajamohan

<i>DEPARTMENT OF ENGLISH</i>				<i>CLASS: I B.A. English</i>				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
II	MCT4	20U2NMC4	Advanced English Grammar	4	4	25	75	100

Course Objectives (Cos)

Course Objectives
➤ To classify four types of sentences.
➤ To use Tenses with appropriate time markers
➤ To recognise and form statements in Direct and Indirect speech and also compare them.
➤ To apply the rules of subject-verb agreement.
➤ To organize sentence level error (Grammar, Punctuation, and spelling) and enhance vocabulary and Word Power.

Units	Course Contents	Hours
1	Parts of Speech/The sentence Types of sentences – Declarative, Interrogative, Imperative and Exclamatory Sentences.	12
2	Tenses and Voices Sequence of Tenses – Active tenses and their Passive equivalents.	12
3	Transformation of Sentences Degrees of Comparison- Direct and Indirect Speech- Simple, Compound & Complex Sentences.	12
4	Concord Subject- Verb Agreement- Agreement of words in Sentences – gender, number, case, person	12
5	Question Tags, Common Errors & Modern Usage Contracted forms - Spotting errors - Passage correction –Idioms and Phrases – Vocabulary Tests – One word substitution – Reconstruction of Sentences	12

Books for study:

Aggarwala, N.K. *A Senior English Grammar and Composition*. Delhi, 2016.

Thomson, A.J and A.V Martinet. *A Practical English Grammar*. USA, 1986.

Krishnaswamy, N. *Modern English – A Book of Grammar, Usage and Composition*. Delhi, 1975.

Books for Reference:

PrasadaRao, N.D.V. *English Grammar and Composition*. Delhi, 1905.

Aggarwal, R. S. and VikasAggarwal. *Objective General English*. Delhi, 1997.

Web Resources:

<https://www.grammarly.com>

<https://www.englishgrammar.org>

Pedagogy

Pep Talk, Word Play, Word Power, Quiz and Dumb Charades

LESSON PLAN

UNIT	DESCRIPTION	12 HOURS	MODE
I-The sentence	a) Parts of Speech	3	Words building
	b) Kinds of sentences.	3	
	c) Illustrations with examples.	3	
	d) Interactive session	3	
II- Tenses and Voices	a) Sequence of Tenses.	3	Word Puzzle
	b) Illustration for the Tense forms	3	
	c) Varied use of the Passive form	3	
	d) Illustration (Graphical Representation)	3	
III-Transformation of Sentences	a) Interchange of Degrees	3	Quiz
	b) Direct - Indirect – changing 4 types of Sentences.	3	
	c) Transformation of kinds of sentences	3	
	d) Subject – Predicate analysis.	3	
IV- Concords	a) Agreement of Words	3	Intensive Oral Drill
	b) Rules Governing Gender	3	
	c) Rules Governing Number, person	3	
	d) Illustrations	3	
V- Question tags, Common Errors & Modern Usage	a) Contractions for making Tags.	3	Assignments
	b) Identifying errors in sentences(in Verbs, Prepositions, Nouns etc.)	3	
	c) Idioms and Phrases	3	
	d) One Word Substitutes.	3	

Course Learning Outcome:

	CLO Statement	Knowledge level
CLO1	Explain basic writing skills	K2
CLO2	Connect with the use of Number & Gender.	K4
CLO3	Build a greater understanding of English Grammar.	K3
CLO4	Develop ability to construct simple sentences with correct grammatical structure.	K4
CLO5	Construct for Career and Advanced studies in English; Public Relations or Communication fields.	K3

Mapping with PSO:

	CLO1	CLO2	CLO3	CLO4	CLO5
PSO1	2	2	2	1	2
PSO2	3	3	3	2	2
PSO3	3	3	3	3	3
PSO4	2	3	2	3	2
PSO5	3	3	3	3	3
PSO6	2	-	3	3	2

Advance application-3, Intermediate Level-2, Basic Level-1.

Mapping with PO:

	CLO1	CLO2	CLO3	CLO4	CLO5
PO1	3	3	3	3	3
PO2	2	2	2	2	2
PO3	3	3	3	3	3
PO4	1	-	-	2	2
PO5	-	-	-	-	-

Advance Application - 3, Intermediate Level - 2, Basic Level -1

Formative - Blue Print

Articulation Mapping - K Levels with Courses Learning Outcomes (CLOs)

Sl. No	CLOs	K- Level	Section A		Section B	Section C (Either/or Choice)	Section D (Open Choice)	Total
			MCQs		Short Answers			
			No. of Questions	K LEVEL	No. of Questions			
1	CLO 1	Up to K 3	2	K1 & K2	1(K1)	1(K2&K2)	2(K3&K3)	
2	CLO 2	Up to K 2	2	K1 & K2	2(K1)	1(K1&K1)	1(K2)	
No. of Questions to be asked			4		3	4	3	15
No. of Questions to be answered			4		3	2	2	12
Marks for each question			1		2	5	10	
Total Marks for each section			4		6	10	20	40

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B Short Answers	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	2	6	10	--	18	30.00	30
K2	2	-	10	10	22	36.66	37
K3	-	-	-	20	20	33.33	33
K4	-	-	-	-	-		
Total Marks	4	6	20	30	60	99.99	100%

Summative - Blue Print
Mapping with Courses Learning Outcomes (CLOs)

Units	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO 1	Up to K2	2	K1or K2	1	K1	2 (K2&K2)	1(K2)
2	CLO 2	Up to K4	2	K1or K2	1	K1	2 (K3&K3)	1(K4)
3	CLO 3	Up to K3	2	K1or K2	1	K2	2 (K3&K3)	1(K3)
4	CLO 4	Up to K4	2	K1or K2	1	K2	2 (K3&K3)	1(K4)
5	CLO 5	Up to K3	2	K1or K2	1	K2	2 (K2&K2)	1(K3)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (Short Answer)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	5	4	-	-	9	7.50	8
K2	5	6	20	10	41	34.16	34
K3	-	-	30	20	50	41.67	42
K4	-	-	-	20	20	16.67	16
Total Marks	10	10	50	50	120	100	100%

Course Designers: 1. Prof. G. Nalini
2. Prof. Aishwarya Sampath

DEPARTMENT OF ENGLISH				CLASS: I B.A. English				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/ week	CIA	Ext	Total
II	AT1/2	20U1NAC2	History of English Literature	5	6	25	75	100

Course Objectives (COs)

Course Objectives
<ul style="list-style-type: none"> To develop familiarity with several works of Chaucer and his contemporaries.
<ul style="list-style-type: none"> To focus on understanding of Shakespeare in relation to Historical and Cultural contexts.
<ul style="list-style-type: none"> To prepare an understanding of the writers of the Neo-Classical Age.
<ul style="list-style-type: none"> To infer with the knowledge of literature of the Romantic concepts.
<ul style="list-style-type: none"> To illustrate the different genres in literature with capacity to judge the aesthetic and ethical values of literary texts upto the 20th century.

Units	Course Contents	Hours
1	Brief Study of Salient Features of Chaucer's Age Life and works in general- The Canterbury Tales- Poetry and Prose of 15 th Century- University Wits.	18
2	Salient Features of Elizabethan Period Life and works of Shakespeare- Spenser and his Poetry-The Playhouse of Shakespeare- Life of Milton- John Donne and some other Metaphysical Poets	18
3	Brief Study of Neo-Classical Age The age and life of Dryden-Prose and Drama of the Age of Dryden- Age and life of Pope- Other Poets and prose writers of the Period	18
4	Main Salient Features of Age of Johnson and Wordsworth Life of Johnson-The age and life of Wordsworth- The Lyrical Ballads and Wordsworth theory of poetry- The younger poets – Coleridge, Scott, Byron, Shelly, Keats and other poets	18
5	Salient Features of Age of Tennyson and Hardy Life of Tennyson – Prose writers(Arnold, Browning) – Age and Life of Hardy- Twentieth Century Novelists – T.S. Eliot and his Contemporaries.	18

Books for study:

- Nair, Ramachandran. *The History of English Literature*. Chennai, 2004
- Prasad, B. A. *Background to the Study of English Literature*.

Books for Reference:

- An outline to the study of English Literature by William Henry Hudson

Web source:

<https://literariness.org/2018/07/12a-brief-history-of-english-literature/amp>

Pedagogy

Pep Talk, Word Play, Word Power, Quiz and Dumb Charade

LESSON PLAN

UNIT	DESCRIPTION	18 HOURS	MODE
I. The Age of Chaucer	a) Life and works of Chaucer	4	Visual aid Flashcards
	b) The Canterbury Tales- selected tales	5	
	c) John Gower and John Skelton (Poetry) and William Caxton and Sir Thomas Moore (Prose) of 15 th Century	5	
	d) University Wits – Role of University Wit	4	
II- The Age of Shakespeare and Milton	a) Life and works of Shakespeare (King Lear and Macbeth)	5	Roleplay
	b) Introduction to Spenser and his poetry (Epithalamion and Prothalamion)	4	
	c) The Playhouses of Shakespeare (Globe and Black Friars)	5	
	d) Life of Milton and Metaphysical Poets(viz: John Donne)	4	
III- Age of Dryden	a) Life and works of Dryden	5	Descriptive Lecture Charts
	b) Prose –Dryden’s Essay of Dramatic Poesy and John Bunyan’s The Pilgrim’s Progress	5	
	c) Age and Life of Pope	4	
	d) Prose – Daniel Defoe, Addison and Steele	4	
IV- Age of Johnson and Wordsworth	a) Life of Johnson	4	.PPT
	b) Life and works of William Wordsworth	5	
	c) The Lyrical Ballads and Theory of Poetry	5	
	d) Other young Romantic Poets – Coleridge and Keats	4	
V- Age of Tennyson and Hardy	a) Life of Tennyson	4	Assignments/Seminar
	b) Prose Writers – Mathew Arnold, Robert Browning	5	
	c) Life of Thomas Hardy	4	
	d) T S Eliot and Contemporaries	5	

	CLO Statement	Knowledge level
CLO1	Analyse the 14 th Century British Values.	K2
CLO2	Compare and contrast Works of Shakespeare with Milton and Metaphysical Poets.	K2
CLO3	Comprehend intrinsic literary values of Dryden and Pope by assimilating their social values and Literary works.	K3
CLO4	Classify the works of Poets of Romantic Movement – Wordsworth, Coleridge & Keats	K4
CLO5	Estimate the relevance of Tennyson & Thomas Hardy’s novels and T. S. Eliot’s portrayal of modern trends in his literary works.	K3

Mapping with PSO:

	CLO1	CLO2	CLO3	CLO4	CLO5
PSO1	2	2	2	2	2
PSO2	2	2	2	2	2
PSO3	2	2	2	2	2
PSO4	2	2	2	2	2
PSO5	2	2	2	2	2
PSO6	-	2	-	3	2

Advance application-3, Intermediate Level-2, Basic Level-1.

Mapping with PO:

	CLO1	CLO2	CLO3	CLO4	CLO5
PO1	3	3	3	3	3
PO2	3	3	3	3	3
PO3	2	3	3	3	3
PO4	3	2	2	1	1
PO5	-	-	-	-	-

Advance Application - 3, Intermediate Level - 2, Basic Level -1

Formative - Blue Print

Articulation Mapping - K Levels with Courses Learning Outcomes (CLOs)

Sl. No	CLOs	K- Level	Section A		Section B	Section C (Either/or Choice)	Section D (Open Choice)	Total
			MCQs		Short Answers			
			No. of Questions	K LEVEL	No. of Questions			
1	CLO 1	Up to K 3	2	K1 & K2	1(K1)	1(K2&K2)	2(K3&K3)	
2	CLO 2	Up to K 2	2	K1 & K2	2(K1)	1(K1&K1)	1(K2)	
No. of Questions to be asked			4		3	4	3	15
No. of Questions to be answered			4		3	2	2	12
Marks for each question			1		2	5	10	
Total Marks for each section			4		6	10	20	40

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B Short Answers	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	2	6	10	--	18	30.00	30
K2	2	-	10	10	22	36.66	37
K3	-	-	-	20	20	33.33	33
K4	-	-	-	-	-		
Total Marks	4	6	20	30	60	99.99	100%

Summative - Blue Print
Mapping with Courses Learning Outcomes (CLOs)

Units	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO 1	Up to K2	2	K1or K2	1	K1	2 (K2&K2)	1(K2)
2	CLO 2	Up to K2	2	K1or K2	1	K1	2 (K2&K2)	1(K2)
3	CLO 3	Up to K3	2	K1or K2	1	K2	2 (K3&K3)	1(K3)
4	CLO 4	Up to K4	2	K1or K2	1	K2	2 (K3&K3)	1(K4)
5	CLO 5	Up to K3	2	K1or K2	1	K2	2 (K3&K3)	1(K3)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (Short Answer)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	5	4	-	-	9	7.50	8
K2	5	6	20	20	51	42.50	42
K3	-	-	30	20	50	41.67	42
K4	-	-	-	10	10	8.33	8
Total Marks	10	10	50	50	120	100	100%

Course Designers:1. Prof. I. Arokiya Sahaya Metilda

2. Prof. V. Vidyalakshmi

Department of Economics

III B.A. Economics (SF)

Syllabi (Under Choice Based Credit System (CBCS) Pattern)

V Semester & VI Semester

Students those who have joined the Programme from 2018-19 onwards

&

Revised Curriculum

(Choice Based Credit system with Outcome Based Education)

Academic Year 2020-2021 onwards

DEPARTMENT OF ECONOMICS

Vision

The vision of the Department of Economics and Centre for Research in Economics is to provide a strong academic foundation in economic laws, concepts, theories, models, issues and encourage the students and scholars to apply their knowledge to analyse economic issues and formulate new policies.

Mission

1. To develop and devise an innovative curriculum that promotes critical and logical thinking for students and Scholars.
2. To be a center of excellence by training students and research scholars in economic theory and its applications.
3. To keep up with changes and challenges and to improve course sequencing.
4. To promote vibrant economic and social science research using ICT.
5. To enhance students' core and distinctive competencies to become good citizens.
6. To enhance collaborations, MOUs, industry-interface and internship programmes.

Programme Educational Objectives (PEOs):

After successful completion of the programme, the students will

- PEO 1 identify the ways and means for allocation of resources to get benefits.
- PEO 2 become knowledgeable in the course of economics.
- PEO 3 identify the expectations of the employer or institution or his own business.
- PEO 4 get application knowledge/ skills in the field of agriculture, industry and other sectors of the economy.
- PEO 5 develop their ability to participate various competitive examinations and professional educations for their employment opportunities.
- PEO 6 become socially responsible and convert them as human capital for nation building.

Programme Outcomes (Pos):

At the end of the programme the graduates will be able to

- PO1 Integrate learned skills and knowledge derived from the study of the humanities and/or the arts and other related disciplines, acquiring the necessary depth and breadth required for a transdisciplinary perspective.
- PO2 Demonstrate Proficiency in using disciplinary – appropriate methods for research, critical analysis, creative work or professional performance.
- PO3 Communicate conclusions, interpretations, and implications clearly, concisely, and effectively, both orally and in writing for different types of audiences.
- PO4 Articulate and apply values, principles, ethics and ideals derived from an integrated understanding of their areas of study and demonstrate awareness of current societal and environmental challenges and ways of mitigating them.
- PO5 Use modern tools, resources and software and be abreast with the emerging trends in their disciplinary area and practice lifelong learning.

Programme Specific Outcomes (PSOs):

S. No.	Programme Specific Outcome	Graduate Attributes
PSO 1	Gather an accurate knowledge in concepts, methods and various branches of economics.	Knowledge
PSO 2	Illustrate the socio-economic issues of individuals, organizations and state.	Ethics and Communication
PSO 3	Analyze economic policies of Indian as well as global economy.	Problem Analysis
PSO 4	Determine the socio-economic variables including inflation, poverty, unemployment, population, global warming, etc.	Environment and Sustainability
PSO 5	Understand the behaviors of markets.	Life Long Learning, Individual and Team Work
PSO 6	Evaluate the economic policy measures.	Design and Development of Policies

B.A. ECONOMICS SYLLABUS – UNDER OBE PATTERNStudents to be admitted from the academic year **2020-21** onwards

Sl. No.	Course Title	Course	Hours per Week	Credit	Page No.
SEMESTER – I					
1.	Micro Economics – I (C)	MCT – 1	5	3	
2.	Economics of Marketing (C)	MCT – 2	4	2	
3.	Economic Statistics – I (A)	AT – 1	6	5	
4.	Value Education & P E		3	3(13)	
SEMESTER – II					
5.	Micro Economics – II (C)	MCT – 3	5	4	
6.	Entrepreneurship Development (C)	MCT – 4	4	4	
7.	Economic Statistics – II (A)	AT – 2	6	5	
8.	Environmental & Gender Studies		3	3	
9.	Extension		-	1 (17)	
SEMESTER – III					
10.	Money and Banking (C)	MCT – 5	4	3	
11.	Mathematical Methods – I (C)	MCT – 6	4	2	
12.	Economics of Tourism (SBE)	SBE – 1	2	2	
13.	Elements of Economics (NME)	NME – 1	2	2	
14.	Financial Accounting (A)	AT – 3	6	5 (14)	
SEMESTER – IV					
15.	International Economics (C)	MCT – 7	4	3	
16.	Mathematical Methods – II (C)	MCT – 8	4	2	
17.	Soft Skills (SBE)	SBE – 2	2	2	
18.	Elements of Public Finance (NME)	NME – 2	2	2	
19.	Agricultural Economics (A)	AT – 4	6	5 (14)	
SEMESTER – V					
20.	Macro Economics – I (C)	MCT – 9	6	6	
21.	Economics of Development and Planning (C)	MCT – 10	6	6	
22.	Labour Economics (C)	MCT -11	6	6	
23.	Elective Paper – I	MET – 1	6	5	
24.	Elective Paper – II	MET – 2	5	4	
25.	Retail Marketing (SBE)	SBE – 3	2	2 (29)	
SEMESTER – VI					
26.	Macro Economics – II (C)	MCT – 12	6	6	
27.	Indian Economics (C)	MCT – 13	6	6	
28.	Public Finance (C)	MCT -14	6	6	
29.	Elective Paper – III	MET – 3	6	5	
30.	Elective Paper – IV	MET – 4	6	4	
31.	Human Resource Management (SBE)	SBE – 4	2	2 (29)	
TOTAL			132	116	

B.A. ECONOMICS SYLLABUS – with OBE under CBCS PATTERN (I & II Semester)

Students to be admitted from the academic year 2020-21 onwards

Sl. No.	Course Title	Course Code	Hours per Week	Credit	Page No.
SEMESTER – I					
1.	Language – I (Tamil / Sanskrit – I)		6	3	
2.	Language – II (English – I)		6	3	
3.	Value Education and Professional Ethics		3	3	
4.	Economic Statistics – I (A)		6	5	
5.	Micro Economics – I (C)		5	3	
6.	Economics of Marketing (C)		4	2	
	TOTAL		30	19	
SEMESTER – II					
6.	Language – I (Tamil / Sanskrit – II)		6	3	
7.	Language – II (English – II)		6	3	
8.	Environment and Gender Studies		3	3	
9.	Economic Statistics – II (A)		6	5	
10.	Micro Economics – II (C)		5	4	
11.	Entrepreneurship Development (C)		4	4	
12.	Extension Activity		-	1	
	TOTAL		30	23	
	TOTAL		60	42	

DEPARTMENT OF ECONOMICS				CLASS: I B.A. Economics				
Sem	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
I	Allied		Economic Statistics – I	5	6	25	75	100

Course Objectives:

1. To acquire basic Knowledge about Statistics
2. To use the statistical techniques in Economics
3. To construct different types of index numbers and the importance of index numbers in Indian Economy

S. No.	COURSE LEARNING OUTCOME	Knowledge Level
CLO1	Student gets equipped with the knowledge on methods of collecting data.	Up to K1
CLO2	Analyze and interpret of statistical data.	Up to K4
CLO3	Measure of averages	Up to K3
CLO4	Acquired knowledge to measure variations.	Up to K3
CLO5	Gained knowledge to construct price index.	Up to K4

Unit-I: Introduction to Statistics

Meaning – Definitions – Scope – Characteristics – Limitations of Statistics – Data – Types – Methods: Primary data and Secondary data – Census Vs Sampling

Unit-II: Classification, Tabulation, and Presentation

Meaning of Classification, Types of classification and Tabulation: Types of tables – Difference between classification and Tabulation – Diagrams: Bar Diagram – Pie diagram and Histogram – Frequency Distribution.

Unit-III: Measures of Central Tendency

Meaning – Definitions – objectives – Types of Averages – Calculation of Arithmetic Mean, Median, Mode, Geometric mean and Harmonic mean.

Unit-IV: Measures of Dispersion

Meaning – Significance – Methods of Studying Variation: Range, Quartile Deviation, Mean Deviation – Standard Deviation and Note on Lorenz Curve.

Unit-V: Index Numbers

Meaning and uses of index numbers – problems in the construction of Index Numbers – Methods of constructing Index numbers – Calculation of Laspeyre’s, Paasche’s, Fisher’s, Edgeworth Method.

Books for Study

1. Pillai, R.S.N. & Bagavathi, V., “**Statistics – Theory and Practice**”, (2012), S. Chand & Company Ltd., New Delhi.
2. KathambaRajan, D., “**Economic and Business Statistics**”, (2011), Himalaya Publishing House, Mumbai.
3. Manokaran, M., “**Statistical Methods**”, (2015), Palani Paramount Publications, Palani.

Books for Reference

1. Gupta, S. P. & Gupta, M.P., “**Business Statistics**”, (2008), Sultan Chand & Sons. New Delhi.
2. Gupta, S. C. and Kapoor, V.K., “**Fundamentals of Applied Statistics**”, (2003), Sultan Chand and Sons, New Delhi.
3. Gupta S.P., “**Statistical Methods**”, (2004), Sultan Chand & Sons, New Delhi.

Web Resources

1. Darius Singpurwalla, “**A Handbook of Statistics-An Overview of Statistical Methods**”, <http://bookboon.com/en/a-handbook-of-statistics-ebook>.

Pedagogy

Chalk and Talk, Peer Teaching and Learning, ICT enabled teaching aids.

Lesson Plan:

Units	Description	Hours	Mode
I	Meaning and Definitions	2	Chalk and Talk
	Scope and Characteristics	4	
	Limitations of Statistics	3	
	Methods of collection of primary data and Secondary data	9	
II	Meaning of classification and Types of classification	4	Chalk and Talk, PPT
	Tabulation: Types of tables	3	
	Difference between classification and Tabulation	3	
	Diagrams: Bar Diagram – Pie diagram and Histogram Frequency	4	
	Distribution Sampling Types: Non probability sampling.	4	
III	Meaning and definitions of Averages	3	Chalk and Talk
	Objectives and Types of Averages	2	
	Arithmetic Mean, Median and Mode	8	
	Geometric mean – Harmonic mean.	5	
IV	Meaning and significance of Dispersion	3	Chalk and Talk
	Methods of studying variation: Range and Quartile Deviation Mean	5	
	Deviation and Standard Deviation	8	
	Lorenz Curve	2	
V	Meaning and uses of index numbers	4	Chalk and Talk, Peer Teaching
	Problems in the construction of Index Numbers	4	
	Methods of constructing Index numbers: Laspeyre's, Paasche's,	10	
	Fisher's, Dorbish and Bowley Method		

Course Designers:

1. Dr. M. Deepen
2. Mr. K. Kamaraj

Learning Outcome Based Education & Assessment (LOBE)
Formative Exam – Blue Print (CIA I & II)
Articulation Mapping - K Levels with Course Learning Outcomes (CLOs)

Internal	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
CIA I	CLO 1	Up to K1	2	K1& K1	1	K1	2 (K1&K1)	1(K1)
	CLO 2	Up to K4	2	K1& K2	2	K2	2 (K4&K4)	2(K3&K4)
CIA II	CLO 3	Up to K3	2	K1& K2	1	K1	2 (K3&K3)	2(K2&K3)
	CLO 4	Up to K3	2	K1& K2	2	K2	2 (K3&K3)	1(K3)
Question Pattern (CIA I & II)	No. of Questions to be asked		4		3		4	3
	No. of Questions to be answered		4		2		2	2
	Marks for each question		1		2		5	10
	Total Marks for each section		4		6		10	20

- CLO5 will be allotted for individual Assignment which carries five marks as part of CIA component.

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated %
K1	2	2	10	10	24	40.00	50
K2	2	4	-	-	06	10.00	
K3	-	-	-	10	10	33.33	33
K4	-	-	10	10	20	16.67	17
Total Marks	4	6	20	30	60	100.00	100%

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	2	2	-	-	4	6.67	33
K2	2	4	-	10	16	26.67	
K3	-	-	20	20	40	66.66	67
K4	-	-	-	-	-	-	
Total Marks	4	6	20	30	60	100.00	100%

Mapping of Course Learning Outcomes(CLO's) with Programme Specific Outcomes (PSO's):

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CLO 1	3	2	1	3	2	1
CLO 2	3	-	2	2	2	-
CLO 3	3	3	2	2	3	3
CLO 4	3	3	3	2	2	3
CLO 5	3	3	2	2	3	3

3- Advance application; 2- Intermediate level; 1- Basic level

Mapping of Course Learning Outcomes (CLO's) with Programme Outcomes (PO's):

	PO 1	PO 2	PO 3	PO 4	PO 5
CLO 1	3	3	3	-	1
CLO 2	3	3	2	3	2
CLO 3	2	3	3	3	2
CLO 4	2	2	3	2	1
CLO 5	3	2	3	2	1

3- Advance application; 2- Intermediate level; 1- Basic level

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

Units	CLOs	K-Level	Section – A		Section – B		Section – C (Either / or Choice)	Section – D (Open Choice)
			MCQs		Short Answers			
			No.of Questions	K-Level	No. of Questions	K-Level		
1	CLO 1	Up to K1	2	K1 & K2	1	K1	2(K1&K1)	1(K1)
2	CLO 2	Up to K4	2	K1 & K2	1	K1	2(K4 &K4)	1(K4)
3	CLO 3	Up to K3	2	K1 & K2	1	K2	2(K3&K3)	1(K3)
4	CLO 4	Up to K3	2	K1 & K2	1	K2	2(K3&K3)	1(K3)
5	CLO 5	Up to K4	2	K1 & K2	1	K2	2(K4&K4)	1(K4)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

Distribution of Section-Wise Marks with K Levels

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (No Choice)	Section D (No Choice)	Total Marks	% of Marks (without choice)	Consolidated
K1	5	4	10	10	29	24.17	34
K2	5	6	-	-	11	9.17	
K3	-	-	20	20	40	33.33	33
K4	-	-	20	20	40	33.33	33
Total Marks	10	10	50	50	120	100.00	100

DEPARTMENT OF ECONOMICS				CLASS: I B.A. Economics				
Sem	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
I	Core		Micro Economics – I	3	5	25	75	100

Course Objectives:

1. To Introduce Basic Concepts and Definitions of Economics
2. To Enable the Students to understand the important areas of Micro Economics
3. To Teach the Students about the theory of consumer's behaviour and production

S. No.	COURSE LEARNING OUTCOME	Knowledge Level
CLO1	Student gathered knowledge in fundamental concepts of Economics	Up to K2
CLO2	Comparison of Total, Average and Marginal Utility and Explanation of Laws of Consumption	Up to K3
CLO3	Illustration of Ordinal Utility Analysis	Up to K3
CLO4	Determination of Demand and Supply and its elasticity measure	Up to K4
CLO5	Outline of Factors of Production and Theories of Production	Up to K2

Unit-I: Basic Concepts in Economics

Definitions of Economics (Wealth, Welfare, Scarcity and Growth) – Differences between Micro and Macro Economics – Economics is a Positive or a Normative Science – Methods of economics – Inductive and deductive – Concepts in Economics – Wants – Characteristics of Wants – Utility – Wealth – Income – Commodity and price.

Unit-II: Cardinal Utility Analysis

Concepts of Total and Marginal Utility – Law of Diminishing Marginal Utility – Law of Equi-Marginal Utility – Consumer's surplus.

Unit-III: Ordinal Utility Analysis

Meaning of Indifference Curve – Indifference Schedule – Indifference Map – Properties of Indifference Curve – Marginal Rate of Substitution – Consumer's Equilibrium – Superiority of Indifference Curve over the Cardinal Utility Analysis.

Unit-IV: Demand and Supply Analysis

Law of Demand – Demand Schedule – Demand Determinants – Types of Demand – Reasons for the Negative Slope of Demand curve – Exceptions – Elasticity of Demand – Types of Elasticity of Demand – Degrees of Price Elasticity of Demand – Measurement of Elasticity of Demand – Factors Determining Elasticity of Demand – Law of Supply – Determinants of Supply.

Unit-V: Theory of Production

Factors of Production – Land, Labour, Capital and Organisation and their Characteristics – Meaning of Production Function – The law of variable proportions – The laws of Returns to scale – Isoquant – Iso-cost line – Producer's equilibrium.

Books for Study

1. John Kennedy, M., “**Micro Economics**”, 2012, Year of Publication, Himalaya Publishing House (P) Ltd., Mumbai
2. Deepashree, “**Principles of Micro Economics**”, 2010, Ane book Pvt. Ltd., New Delhi.
3. Bose, D. and Marimuthu, A., “**An Introduction to Micro Economics**”, (2011), Himalaya Publishing House, Mumbai.

Books for Reference

1. Koutsoyiannis, A., “**Modern Microeconomics**”, (2013), (International Edition), Macmillan Press Ltd, London.
2. Jhingan, M.L., “**Advanced Economic Theory**”, (2011), Vrinda publications (P) Ltd, Delhi.
3. Ahuja, H.L., “**Principles of Microeconomics**”, (2012), S. Chand & Company Ltd, New Delhi.

Web Resources

1. www.m.sparknotes.com> Spark Notes.
2. www.wikieducator.org>Economics_Textbook.

Pedagogy

Chalk and Talk, Peer Teaching and Learning, ICT enabled teaching aids.

LESSON PLAN

Units	Description	Hours	Mode
I	Definitions of Economics:		Chalk and Talk, PPT
	• Wealth	5	
	• Welfare	2	
	• Scarcity and Growth	1	
	Characteristics of Human wants	2	
	Differences between Micro and Macro Economics	2	
II	Economics is a Positive or a Normative Science	3	Chalk and Talk, PPT
	Methods of economics – Inductive and deductive –		
	Concepts in Economics: Utility – Wealth – Income – Commodity		
	Concepts of Total and Marginal Utility	2	
	Law of Diminishing Marginal Utility	5	
III	Law of Equi-Marginal Utility	5	Chalk and Talk, PPT
	Consumer's surplus.	3	
	Meaning of Indifference Curve, Indifference Schedule and Indifference Map	3	
	Properties of Indifference Curve	2	
	Marginal Rate of substitution	3	
IV	Consumer's Equilibrium	4	Chalk and Talk
	Superiority of Indifference curve over the cardinal utility analysis.		
	Law of Demand, Demand schedule and Demand determinants Types of Demand	2	
	Reasons for the Negative slope of Demand curve – Exceptions	1	
	Elasticity of Demand and Types of Elasticity of Demand Degrees of	2	
	Price Elasticity of Demand	1	
	Measurement of elasticity of Demand	2	
Factors Determining elasticity of Demand	4		
V	Law of supply - Determinants of Supply.	1	Chalk and Talk
	Factors of Production and its characteristics	2	
	• Land	5	
	• Labour	2	
	• Capital and	3	
	• Organisation	3	
	Functions of an Entrepreneur	2	
The law of variable proportions			
The laws of Returns to scale			
Isoquant – Iso-cost line – Producer's equilibrium			

Course Designer:

1. Dr. S. Sureshkannan
2. Dr. J. Premkumar

Learning Outcome Based Education & Assessment (LOBE)
Formative Exam – Blue Print (CIA I & II)
Articulation Mapping - K Levels with Course Learning Outcomes (CLOs)

Internal	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
CIA I	CLO 1	Up to K2	2	K1& K1	1	K1	2 (K2&K2)	1(K2)
	CLO 2	Up to K3	2	K1& K2	2	K2	2 (K3&K3)	2(K2&K3)
CIA II	CLO 3	Up to K3	2	K1& K2	1	K1	2 (K3&K3)	2(K3)
	CLO 4	Up to K4	2	K1& K2	2	K2	2 (K3&K3)	1(K3&K4)
Question Pattern (CIA I & II)	No. of Questions to be asked		4		3		4	3
	No. of Questions to be answered		4		2		2	2
	Marks for each question		1		2		5	10
	Total Marks for each section		4		6		10	20

- CLO5 will be allotted for individual Assignment which carries five marks as part of CIA component.

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated %
K1	2	2	-	-	4	6.67	67
K2	2	4	10	20	36	60	
K3	-	-	10	10	20	33.33	33
K4	-	-	-	-	-	-	-
Total Marks	4	6	20	30	60	100.00	100%

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	2	2	-	-	4	6.67	16
K2	2	4	-	-	6	10.00	
K3	-	-	20	20	40	66.67	84
K4	-	-	-	10	10	16.66	
Total Marks	4	6	20	30	60	100.00	100%

Mapping of Course Learning Outcomes (CLO's) with Programme Specific Outcomes (PSO's):

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CLO 1	3	3	3	2	3	3
CLO 2	3	3	3	-	3	2
CLO 3	3	3	3	2	3	3
CLO 4	3	3	3	2	3	3
CLO 5	3	2	2	-	2	2

3- Advance application; 2- Intermediate level; 1- Basic level

Mapping of Course Learning Outcomes (CLO's) with Programme Outcomes (PO's):

	PO 1	PO 2	PO 3	PO 4	PO 5
CLO 1	3	3	2	2	-
CLO 2	3	3	3	2	1
CLO 3	3	3	2	3	2
CLO 4	3	3	3	2	1
CLO 5	3	3	3	2	1

3- Advance application; 2- Intermediate level; 1- Basic level

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

Units	CLOs	K-Level	Section – A		Section – B		Section – C (Either / or Choice)	Section – D (Open Choice)
			MCQs		Short Answers			
			No.of Questions	K-Level	No. of Questions	K-Level		
1	CLO 1	Up to K2	2	K1 & K2	1	K1	2(K2&K2)	1(K2)
2	CLO 2	Up to K3	2	K1 & K2	1	K1	2(K3&K3)	1(K3)
3	CLO 3	Up to K3	2	K1 & K2	1	K2	2(K3&K3)	1(K3)
4	CLO 4	Up to K4	2	K1 & K2	1	K2	2(K4&K4)	1(K4)
5	CLO 5	Up to K2	2	K1 & K2	1	K2	2(K2&K2)	1(K3)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

Distribution of Section-Wise Marks with K Levels

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (No Choice)	Section D (No Choice)	Total Marks	% of Marks (without choice)	Consolidated
K1	5	4	-	-	9	7.50	42
K2	5	6	20	10	41	34.17	
K3	-	-	20	30	50	41.67	42
K4	-	-	10	10	20	16.67	16
Total Marks	10	10	50	50	120	100.00	100

DEPARTMENT OF ECONOMICS				CLASS: I B.A. Economics				
Sem	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
I	Core		Economics of Marketing	2	4	25	75	100

Course Objectives:

1. To understand the performance of marketing activity
2. To comprehend the role of marketing in an economy
3. To identify the marketing research and information system

S. No.	COURSE LEARNING OUTCOME	Knowledge Level
CLO1	Student Gained Knowledge on Marketing and its role in Economic Development	Up to K2
CLO2	Identification of Marketing Functions and able to Market Segmentation	Up to K4
CLO3	Acquired Knowledge on Marketing Mix	Up to K2
CLO4	Analyse pricing policies and channels of distribution	Up to K4
CLO5	Examine the Marketing Research Information System	Up to K3

Unit-I: Introduction of Marketing

Meaning of Marketing – Definitions – Evolution of Marketing – Objectives of Marketing – Concepts – Distinction between Marketing and Market – Role of Marketing in the Economic Development.

Unit-II: Marketing Functions And Market Segmentation

Functions of Marketing: Functions of Exchange – Functions of Physical Supply – Facilitating Functions – Meaning and Definition of Market Segmentation – Importance of Market Segmentation – Methods of Segmenting Markets.

Unit-III:Marketing Mix

4P's (Product, Price, Place (Distribution), Promotion) and their Meaning – Factors Influencing Product Mix – Product Life Cycle – Product Promotion Related Strategies

Unit-IV:Pricing & Channels of Distribution

Objectives – Pricing Policies and Strategies – Channels of Distribution – Structure and Types of Marketing Channels – Channels Functions – Factors Influencing the Choice of Channels.

Unit-V:Marketing Research and Information System

Meaning of Marketing Research: Objectives – Process – Advantages – Limitations – Meaning of Market Information – Development of Market Information System – Essential Requisites of a Good Market Information System – Benefits of Market Information System.

Books for Study

1. Pillai, R. S. N. and Bhagavathi (2011) “**Modern Marketing**” S.Chand & Co, New Delhi.
2. Agarwal, R. C. (2012) “**Principles of Management**” Lakshmi Narain Agarwal, Agra.
3. Sherlekar S.A. & Nirmala Prasad, K. (2007) “**Principles of Marketing**” Himalaya Publishing House.

Books for Reference

1. Philip Kotler (2009) “**Marketing Management**”, Dorling Kindersley (India) Pvt. Ltd
2. Thirunavukkarasu. R and L.P. Ramalingam (2009) “**Marketing Management**”, Merit India Publications, Madurai.

Web Resources

1. <https://open.lib.umn.edu/principles.ma...>
2. <https://www.amazon.com/principles.ma...>

Pedagogy

Chalk and Talk, Peer Teaching and Learning, ICT enabled teaching aids.

LESSON PLAN

Units	Description	Hours	Mode
I	Meaning and Definitions of marketing	1	Chalk and Talk, PPT
	Evolution of marketing	3	
	Objectives and Concepts of marketing	4	
	Distinction between marketing and market	2	
	Role of Marketing in the Economic development	2	
II	Functions of marketing: Functions of exchange, Functions of physical supply and Facilitating functions	6	Chalk and Talk, PPT
	Meaning and definition of market segmentation	2	
	Importance of market segmentation	2	
	Methods of segmenting Markets	2	
III	4P's	4	Chalk and Talk, PPT
	<ul style="list-style-type: none"> • Product • Price • Place (Distribution) • Promotion and their meaning 		
	Factors influencing product mix	3	
	Product life cycle	3	
	Product related strategies	2	
IV	Objectives of Pricing, Pricing policies and strategies	4	Chalk and Talk
	Channels of distribution: Structure and types of marketing channels	4	
	Channels functions – factors influencing the choice of channels	4	
V	Meaning and Objectives of marketing research	3	Chalk and Talk, Peer Teaching
	Advantages and Limitations of marketing research	2	
	Meaning of market information and Development of market information system	2	
	Essential requisites of a good market information system Benefit of market information system.	3	
		2	

Course Designer:

1. Mrs. M. Manjula
2. Dr. S. Sureshkannan

Learning Outcome Based Education & Assessment (LOBE)
Formative Exam – Blue Print (CIA I & II)
Articulation Mapping - K Levels with Course Learning Outcomes (CLOs)

Internal	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
CIA I	CLO 1	Up to K2	2	K1 & K1	1	K1	2 (K2&K2)	1(K2)
	CLO 2	Up to K4	2	K1 & K2	2	K2	2 (K3&K3)	2(K3&K4)
CIA II	CLO 3	Up to K2	2	K1 & K2	1	K1	2 (K2&K2)	1(K2)
	CLO 4	Up to K4	2	K1 & K2	2	K2	2 (K2&K2)	2(K3&K4)
Question Pattern (CIA I & II)	No. of Questions to be asked		4		3		4	3
	No. of Questions to be answered		4		2		2	2
	Marks for each question		1		2		5	10
	Total Marks for each section		4		6		10	20

- *CLO5 will be allotted for individual Assignment which carries five marks as part of CIA component.*

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated %
K1	2	2	-	-	4	6.67	50
K2	2	4	10	10	26	43.33	
K3	-	-	10	10	20	33.33	33
K4	-	-	-	10	10	16.67	17
Total Marks	4	6	20	30	60	100.00	100%
K Levels	Section A (No Choice)	Section B (No Choice)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	2	2	-	-	4	6.67	50
K2	2	4	10	10	26	43.33	
K3	-	-	10	10	20	33.33	33
K4	-	-	-	10	10	16.67	17
Total Marks	4	6	20	30	60	100.00	100%

Mapping of Course Learning Outcomes (CLO's) with Programme Specific Outcomes (PSO's):

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CLO 1	3	3	3	3	3	2
CLO 2	3	3	3	-	3	3
CLO 3	3	2	3	2	3	3
CLO 4	3	3	2	2	3	3
CLO 5	3	2	3	3	2	3

3- Advance application; 2- Intermediate level; 1- Basic level

Mapping of Course Learning Outcomes (CLO's) with Programme Outcomes (PO's):

	PO 1	PO 2	PO 3	PO 4	PO 5
CLO 1	3	3	2	2	1
CLO 2	3	3	3	2	2
CLO 3	2	3	3	2	2
CLO 4	3	3	3	2	2
CLO 5	2	2	3	2	3

3- Advance application; 2- Intermediate level; 1- Basic level

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

Units	CLOs	K-Level	Section – A		Section – B		Section – C (Either / or Choice)	Section – D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K-Level	No. of Questions	K-Level		
1	CLO 1	Up to K2	2	K1 & K2	1	K1	2(K2&K2)	1(K2)
2	CLO 2	Up to K4	2	K1 & K2	1	K1	2(K4&K4)	1(K4)
3	CLO 3	Up to K2	2	K1 & K2	1	K2	2(K2&K2)	1(K3)
4	CLO 4	Up to K4	2	K1 & K2	1	K2	2(K4&K4)	1(K4)
5	CLO 5	Up to K3	2	K1 & K2	1	K2	2(K3&K3)	1(K3)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

Distribution of Section-Wise Marks with K Levels

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (No Choice)	Section D (No Choice)	Total Marks	% of Marks (without choice)	Consolidated
K1	5	4	-	-	9	7.50	
K2	5	6	20	10	41	34.17	42
K3	-	-	10	20	30	25.00	25
K4	-	-	20	20	40	33.33	33
Total Marks	10	10	50	50	120	100.00	100

DEPARTMENT OF ECONOMICS				CLASS: I B.A. Economics				
Sem	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
II	Allied		Economic Statistics – II	5	6	25	75	100

Course Objectives:

1. To know the differences between correlation and regression.
2. To understand the concept of probability and counting techniques (addition rule and multiplication rule,) to compute probability.
3. To give knowledge about various measurement of trend like semi average, moving average and least square.

S. No.	COURSE LEARNING OUTCOME	Knowledge Level
CLO1	Students can correlate variables	K4
CLO2	Prediction of one variable from another variable	K2
CLO3	Examine the relationship between attributes	K4
CLO4	Analyse the Methods of Trend Projection	K4
CLO5	Gathered knowledge on Basic Probability Theorems	K1

Unit-I: Correlation

Meaning – Definition - Significance – Types – Simple Correlation – Calculation of Karl Pearson’s Co-efficient of correlation – Spearman’s Rank Correlation.

Unit-II: Regression

Meaning and Uses – Difference between Correlation and Regression – Limitations – Regression Lines – Calculation of Regression Equations of x on y and y on x.

Unit-III: Association of Attributes

Introduction – Difference between Correlation and Association – Notation and Terminology – Association and Disassociation – Methods of Studying Association: Comparison of Observed and Expected Frequencies Methods, Proportion Method, Yule’s Coefficient of Association, Coefficient of Colligation.

Unit-IV: Time Series

Definition – Significance – Components – Measurement of Trend – Freehand Method – Semi-average Method – Moving Average Method – Method of Least Squares.

Unit-V: Probability

Meaning – Importance – Calculation of Probability – Theorems of Probability: Additional Theorem, Multiplication Theorem, Permutation and Combinations (Simple Problems).

Books for Study

1. Pillai, R.S.N. & Bagavathi V., “**Statistics- Theory and Practice**”, (2012), S. Chand & Company Ltd., New Delhi.
2. KathambaRajan, D., “**Economic and Business Statistics**”, (2011), Himalaya Publishing House, Mumbai.
3. Manokaran, M., “**Statistical Methods**”, (2010), Palani Paramount Publications, Palani.

Books for Reference

1. Gupta, S.P. & Gupta M.P., “**Business Statistics**”, (2008), Sultan Chand & Sons. New Delhi.
2. Gupta, S.C. and Kapoor, V.K., “**Fundamentals of Applied Statistics**”, (2003), Sultan Chand and Sons, New Delhi.
3. Gupta, S.P., “**Statistical Methods**”, (2004), Sultan Chand & Sons, New Delhi.

Web Resources

1. Darius Singpurwalla, “**A Handbook of Statistics-An Overview of Statistical Methods**”,
<http://bookboon.com/en/a-handbook-of-statistics-ebook>

Pedagogy

Chalk and Talk, Peer Teaching and Learning, ICT enabled teaching aids.

LESSON PLAN

Units	Description	Hours	Mode
I	Correlation: Meaning, Definition and its Significance	4	Chalk and Talk, PPT
	Types of Correlation	2	
	Calculation of Karl Pearson's Co-efficient of correlation Spearman's Rank Correlation.	6	
		6	
II	Meaning and Uses of Regression	3	Chalk and Talk, PPT
	Difference between Correlation and Regression	2	
	Limitations	1	
	Calculation of Regression Equations of x on y and y on x.	12	
III	Introduction and Difference between Correlation and Association	2	Chalk and Talk, Peer Teaching
	Notation and Terminology & Association and Disassociation		
	Methods of Studying Association:	4	
	<ul style="list-style-type: none"> • Comparison of Observed and Expected Frequencies Methods • Proportion Method • Yule's Coefficient of Association • Coefficient of Colligation 	12	
IV	Definition and Significance of Time Series	3	Chalk and Talk, PPT
	Components of Time Series	3	
	Measurement of Trend:	12	
	<ul style="list-style-type: none"> • Freehand and Semi-average Method • Moving Average Method and • Method of Least Squares. 		
V	Meaning and Importance	3	Chalk and Talk
	Calculation of Probability	3	
	Theorems of Probability: Additional Theorem and Multiplication Theorem	7	
	Permutation and Combinations (Simple Problems)	5	

Course Designer:

1. Dr. M. Deepan
2. Mr. K. Kamaraj

Learning Outcome Based Education & Assessment (LOBE)
Formative Exam – Blue Print (CIA I & II)
Articulation Mapping - K Levels with Course Learning Outcomes (CLOs)

Internal	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
CIA I	CLO 1	Up to K4	2	K1& K1	1	K1	2 (K3&K3)	1(K3&K4)
	CLO 2	Up to K2	2	K1& K2	2	K2	2 (K2&K2)	2(K2)
CIA II	CLO 3	Up to K4	2	K1& K2	1	K1	2 (K3&K3)	2(K3&K4)
	CLO 4	Up to K4	2	K1& K2	2	K2	2 (K3&K3)	1(K4)
Question Pattern (CIA I & II)	No. of Questions to be asked		4		3		4	3
	No. of Questions to be answered		4		2		2	2
	Marks for each question		1		2		5	10
	Total Marks for each section		4		6		10	20

- CLO5 will be allotted for individual Assignment which carries five marks as part of CIA component.

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated %
K1	2	2	-	-	4	6.67	50
K2	2	4	10	10	26	43.33	
K3	-	-	10	10	20	33.33	33
K4	-	-	-	10	10	16.67	17
Total Marks	4	6	20	30	60	100.00	100%

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	2	2	-	-	4	6.67	33
K2	2	4	-	-	16	26.67	
K3	-	-	20	10	40	66.66	67
K4	-	-	-	20	-	-	
Total Marks	4	6	20	30	60	100.00	100%

Mapping of Course Learning Outcomes(CLO's) with Programme Specific Outcomes (PSO's):

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CLO 1	3	3	3	2	2	3
CLO 2	3	3	3	3	2	3
CLO 3	3	3	3	3	3	2
CLO 4	3	2	-	2	2	1
CLO 5	3	3	2	2	-	2

3- Advance application; 2- Intermediate level; 1- Basic level

Mapping of Course Learning Outcomes (CLO's) with Programme Outcomes (PO's):

	PO 1	PO 2	PO 3	PO 4	PO 5
CLO 1	3	2	3	2	-
CLO 2	3	3	3	2	-
CLO 3	2	3	3	2	-
CLO 4	3	3	3	1	2
CLO 5	3	3	3	2	2

3- Advance application; 2- Intermediate level; 1- Basic level

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

Units	CLOs	K-Level	Section – A		Section – B		Section – C (Either / or Choice)	Section – D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K-Level	No. of Questions	K-Level		
1	CLO 1	Up to K4	2	K1 & K2	1	K1	2(K4&K4)	1(K4)
2	CLO 2	Up to K2	2	K1 & K2	1	K1	2(K2&K2)	1(K2)
3	CLO 3	Up to K4	2	K1 & K2	1	K2	2(K4&K4)	1(K4)
4	CLO 4	Up to K1	2	K1 & K2	1	K2	2(K3&K3)	1(K3)
5	CLO 5	Up to K2	2	K1 & K2	1	K2	2(K2&K2)	1(K3)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

Distribution of Section-Wise Marks with K Levels

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (No Choice)	Section D (No Choice)	Total Marks	% of Marks (without choice)	Consolidated
K1	5	4	-	-	9	7.50	
K2	5	6	20	10	41	34.17	42
K3	-	-	10	20	30	25.00	25
K4	-	-	20	20	40	33.33	33
Total Marks	10	10	50	50	120	100.00	100

<i>DEPARTMENT OF ECONOMICS</i>				<i>CLASS: I B.A. Economics</i>				
Sem	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
II	Core		Micro Economics – II	4	5	25	75	100

Course Objectives:

1. To know the basic concept of cost and revenue
2. To understand the idea of perfect and imperfect market structure
3. To elucidate the importance of factor pricing

S. No.	COURSE LEARNING OUTCOME	Knowledge Level
CLO1	Familiar with nature and shape of cost and revenue curves	Up to K1
CLO2	Determine the Price and output under Perfect competition	Up to K3
CLO3	Illustrate the Price and output under Imperfect competition	Up to K3
CLO4	Discuss Wage and Rent Theories	Up to K2
CLO5	Examine Interest And Profit Theories	Up to K4

Unit-I: Equilibrium of the Firm, Cost & Revenue Analysis

Conditions of Equilibrium – Concept of Costs – Fixed Cost – Variable Cost – Average cost, Marginal Cost – Relationship between Average Cost and Marginal Cost – Concepts of Revenue – Total Revenue – Average Revenue and Marginal Revenue.

Unit-II: Price and Output Determination under Perfect Competition

Meaning of Perfect Competition – Characteristics – Price and Output determination under Perfect Competition in the Short Run and Long Run – Marshall’s Time Period Analysis.

Unit-III: Price and Output Determination under Imperfect Competition

Monopoly: - Meaning – Characteristics – Price and Output determination under Monopoly - Monopolistic Competition – Meaning – Characteristics – Price and Output determination under Monopolistic Competition – Selling Cost and Excess Capacity (Concept Only) – Oligopoly: Meaning and Features.

Unit-IV: Factor Pricing: Land and Labour

Marginal Productivity Theory of Distribution – Modern Theory of Distribution – Rent – Meaning – Ricardian Theory of Rent – Quasi-Rent – Wage – Meaning – Subsistence Theory of Wages - The Wage Fund Theory.

Unit-V: Factor Pricing: Capital and Organisation

Interest – Meaning – Loanable Fund Theory of Interest – Liquidity Preference Theory of Interest – Liquidity Trap – Profit – Meaning - Innovation Theory of Profit – Risk Theory of Profit – Uncertainty Theory of Profit.

Books for Study

1. John Kennedy, M., “**Micro Economics**”, (2012), Himalaya Publishing House (P) Ltd., Mumbai.
2. Deepashree, “**Principles of Micro Economics**”, (2010), Ane Book Pvt. Ltd., New Delhi.
3. Bose, D. and Marimuthu, A., “**An Introduction to Micro Economics**”, (2011), Himalaya Publishing House, Mumbai.

Books for Reference

1. Koutsoyiannis, A., “**Modern Microeconomics**”, (2013), (International Edition), Macmillan Press Ltd., London.
2. Ahuja, H.L., “**Principles of Microeconomics**”, (2012), S. Chand & Company Ltd., New Delhi.
3. Jhingan, M.L., “**Advanced Economic Theory**”, (2011), Vrinda Publications (P) Ltd., Delhi

Web Resources

1. www.m.sparknotes.com> Spark Notes.
2. wikieducator.org>Economics_Textbook.

Pedagogy

Chalk and Talk, Peer Teaching and Learning, ICT enabled teaching aids.

LESSON PLAN

Units	Description	Hours	Mode
I	Intersection of Demand and Supply Curve	1	Chalk and Talk
	Equilibrium conditions	2	
	Concept of Costs: Fixed Cost, Variable Cost, Average cost and Marginal Cost	4	
	Relationship between Average and Marginal Cost	2	
	Concepts of Revenue: Total Revenue - Average Revenue and Marginal Revenue	2	
	Relationship between AR and MR Under Perfect and Imperfect Competition.	4	
II	Meaning and Characteristics of Perfect Competition	4	Chalk and Talk, PPT
	Price and Output determination under Perfect Competition in the Short Run and Long Run	7	
	Marshall's Time Period Analysis	4	
III	Meaning and Characteristics of Monopoly, Price and Output determination under Monopoly	5	Chalk and Talk, PPT
	Monopolistic Competition: Meaning and Characteristics, Price and Output determination under Monopolistic Competition Selling Cost and Excess Capacity (Concept Only)	6	
	Oligopoly: Meaning and Features.	2	
		2	
IV	Marginal Productivity Theory of Distribution	4	Chalk and Talk
	Modern Theory Distribution	3	
	Meaning of Rent, Ricardian Theory of Rent and Quasi-Rent Meaning of Wage, Subsistence Theory of Wages and The Wage Fund Theory	4	
	4		
V	Interest: Meaning	1	Chalk and Talk, Peer Teaching
	Loanable fund Theory of Interest	2	
	Liquidity Preference Theory of Interest – Liquidity Trap	5	
	Profit: Meaning	1	
	Innovation Theory of Profit	2	
	Risk Theory of Profit	2	
	Uncertainty Theory of Profit	2	

Course Designer:

1. Dr. S. Sureshkannan
2. Dr. J. Premkumar

Learning Outcome Based Education & Assessment (LOBE)
Formative Exam – Blue Print (CIA I & II)
Articulation Mapping - K Levels with Course Learning Outcomes (CLOs)

Internal	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
CIA I	CLO 1	Up to K1	2	K1& K1	1	K1	2 (K1&K1)	1(K1)
	CLO 2	Up to K3	2	K1& K2	2	K2	2 (K3&K3)	2(K2&K3)
CIA II	CLO 3	Up to K3	2	K1& K2	1	K1	2 (K3&K3)	2(K2&K3)
	CLO 4	Up to K2	2	K1& K2	2	K2	2 (K2&K2)	1(K2)
Question Pattern (CIA I & II)	No. of Questions to be asked		4		3		4	3
	No. of Questions to be answered		4		2		2	2
	Marks for each question		1		2		5	10
	Total Marks for each section		4		6		10	20

- CLO5 will be allotted for individual Assignment which carries five marks as part of CIA component.

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated %
K1	2	2	10	10	24	40.00	67
K2	2	4	-	10	16	26.67	
K3	-	-	10	10	20	33.33	33
K4	-	-	-	-	-	-	-
Total Marks	4	6	20	30	60	100.00	100%
K Levels	Section A (No Choice)	Section B (No Choice)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	2	2	-	-	4	6.67	67
K2	2	4	10	20	36	60.00	
K3	-	-	10	10	20	33.33	33
K4	-	-	-	-	-	-	-
Total Marks	4	6	20	30	60	100.00	100%

Mapping of Course Learning Outcomes(CLO's) with Programme Specific Outcomes (PSO's):

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CLO 1	3	3	2	3	2	-
CLO 2	3	3	-	-	3	3
CLO 3	3	3	3	3	3	3
CLO 4	3	3	3	3	3	3
CLO 5	3	3	3	2	2	2

3- Advance application; 2- Intermediate level; 1- Basic level

Mapping of Course Learning Outcomes (CLO's) with Programme Outcomes (PO's):

	PO 1	PO 2	PO 3	PO 4	PO 5
CLO 1	3	2	3	2	-
CLO 2	3	3	3	1	-
CLO 3	3	3	3	1	-
CLO 4	3	3	2	1	1
CLO 5	3	3	2	1	1

3- Advance application; 2- Intermediate level; 1- Basic level

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

Units	CLOs	K-Level	Section – A		Section – B		Section – C (Either / or Choice)	Section – D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K-Level	No. of Questions	K-Level		
1	CLO 1	Up to K2	Up to K1	2	K1 & K2	1	K1	2(K1&K1)
2	CLO 2	Up to K3	Up to K3	2	K1 & K2	1	K1	2(K3&K3)
3	CLO 3	Up to K4	Up to K3	2	K1 & K2	1	K2	2(K3&K3)
4	CLO 4	Up to K2	Up to K2	2	K1 & K2	1	K2	2(K2&K2)
5	CLO 5	Up to K4	Up to K4	2	K1 & K2	1	K2	2(K4&K4)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

Distribution of Section-Wise Marks with K Levels

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (No Choice)	Section D (No Choice)	Total Marks	% of Marks (without choice)	Consolidated
K1	5	4	10	10	29	24.17	50
K2	5	6	10	10	31	25.83	
K3	-	-	20	20	40	33.33	33
K4	-	-	10	10	20	16.67	17
Total Marks	10	10	50	50	120	100.00	100

DEPARTMENT OF ECONOMICS				CLASS: I B.A. Economics				
Sem	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
II	Core		Entrepreneurship Development	4	4	25	75	100

Course Objectives:

1. To acquire knowledge of basic entrepreneurship concepts.
2. To identify entrepreneurial growth.
3. To search an opportunity to start a SSI and find financial sources available to SSIs

S. No.	COURSE LEARNING OUTCOME	Knowledge Level
CLO1	Acquire knowledge on entrepreneurship and its role on economic development	Up to K2
CLO2	Identify the role and problems of women entrepreneurs	Up to K3
CLO3	Analyse the importance of Small Scale Industries	Up to K4
CLO4	Gather the knowledge about industrial estates	Up to K2
CLO5	Identify the various financial sources to start SSIs	Up to K3

Unit-I: Introduction to Entrepreneur

Definitions of Entrepreneur – Entrepreneurs and Managers- Characteristics of an Entrepreneur – Barriers to Entrepreneurship – Environmental factors affecting Entrepreneurship- Types of Entrepreneurs – Functions of Entrepreneurs – Entrepreneurship and Economic Development – Phases of Entrepreneurship Development.

Unit-II: Women Entrepreneurs

Women Entrepreneur – Characteristics of Indian Women Entrepreneur – Problems of Women Entrepreneurs – Measures to Overcome the Problems of Women Entrepreneur – Training Programmes for Women Empowerment – Functions of Women Entrepreneurship – Schemes to assist the women entrepreneurs

Unit-III: Small scale and Cottage Enterprises

Definitions of small scale Enterprises- Classification of Small Scale Industries – Measures – Causes of Industrial Disputes – Lockouts – The principal causes – Settlement of Industrial dispute – Joint Management Councils – Code of Discipline – The Role of Small Scale and Cottage Industries in Indian Economy.

Unit-IV: Industrial Estates

Definitions of Industrial Estates – Types of Industrial Estates – Objectives of Industrial Estates – Causes of Industrial Estates – Measures of Industrial Estates.

Unit-V: Institutional Finance

Need and Importance of Institutional Finances – Types of Industrial Finance – Sources of Finance – Financing for Industrial Estates – IDBI – ICICI – SSDC – SISIs – DICs.

Books for Study

1. Theenathayalan, S. (2016). **Entrepreneurship**. Tamil Nadu: Vergal Publication.
2. Anil Kumar, S. and Jayashree, K. (2003). **Entrepreneurship Development**. New Delhi: New Age International Publishers.

3. Gupta, C. B. and Srinivasan, N. P. (2003). **Entrepreneurial Development**. New Delhi: Sultan Chand and Sons.
4. Suresh, Jayshree. (2003). **Entrepreneurial Development**. Chennai: Margham Publications.
5. Rengarajan, L. (2008). **Entrepreneurial Development**. Rajapalayam: SreeRenga Publications.

Books for Reference

1. Gordon, E. and Natarajan, K. (2010). **Entrepreneurship Development**. Mumbai: Himalaya Publishing House.
2. Khanka, S. S. (2004). **Entrepreneurial Development**. New Delhi: S. Chand & Company Ltd.
3. Baporikar, Neeta. (2002). **Entrepreneurship and Small Industries**. Mumbai: Himalaya Publishing House.
4. Arora, Renu and Sood, S. K. (2003). **Fundamentals of Entrepreneurship and Small Business**. New Delhi: Kalyani Publishers, Ludhiana.
5. Vasant Desai (2003). **Small Scale Industries and Entrepreneurship**. Mumbai: Himalaya Publishing House.
6. Robert D. Hisrich, Michael P. Peters and Dean A. Shepherd. (2007). **Entrepreneurship**. New Delhi: Tata McGraw Hill.
7. Poornima M. Charantimath. (2007). **Entrepreneurship Development and Small Business Enterprises**. New Delhi: Pearson Education.

Web Resources

1. <https://www.freebookcentre.net/business-books-download/Entrepreneurial-Development.html>
2. <https://tim-halloran.com/entrepreneurship-development-ebook-free-download/>

Pedagogy

Chalk and Talk, Peer Teaching and Learning, ICT enabled teaching aids.

LESSON PLAN

Units	Description	Hours	Mode
I	Definitions of Entrepreneur & Entrepreneurs and Managers	2	Chalk and Talk, PPT
	Characteristics of an Entrepreneur	2	
	Barriers to Entrepreneurship	2	
	Environmental factors affecting Entrepreneurship	1	
	Types & functions of Entrepreneurs	3	
	Entrepreneurship and Economic Development	2	
II	Phases of Entrepreneurship Development.		Chalk and Talk, PPT, Peer Teaching
	Women Entrepreneur	2	
	Characteristics of Indian Women Entrepreneur	2	
	Problems of Women Entrepreneurs	2	
	Measures to Overcome the Problems of Women Entrepreneur Training	2	
	Programmes for Women Empowerment	2	
III	Functions of Women Entrepreneurship	2	Chalk and Talk, PPT
	Schemes to assist the women entrepreneurs	2	
	Definitions of Small Scale Enterprises & Classification of Small Scale Industries	2	
	Measures & Causes of Industrial Disputes & Lockouts	2	
	The principal causes & Settlement of Industrial dispute	3	
IV	Joint Management Councils & Code of Discipline	2	Chalk and Talk, PPT
	The Role of Small Scale and Cottage Industries in Indian Economy	3	
	Definitions of Industrial Estates	2	
	Types of Industrial Estates	3	
	Objectives of Industrial Estates	2	
V	Causes of Industrial Estates	2	Chalk and Talk, PPT, Peer Teaching
	Measures of Industrial Estates	3	
	Need and Importance of Institutional Finances	2	
	Types of Industrial Finance	2	
	Sources of Finance	2	
	Financing for Industrial Estates	2	
	IDBI – ICICI – SSDC – SISIs – DICs	4	

Course Designer:

1. Mrs. M. Manjula
2. Dr. J. Premkumar

Learning Outcome Based Education & Assessment (LOBE)
Formative Exam – Blue Print (CIA I & II)
Articulation Mapping - K Levels with Course Learning Outcomes (CLOs)

Internal	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
CIA I	CLO 1	Up to K2	2	K1& K1	1	K1	2 (K2&K2)	1(K2)
	CLO 2	Up to K3	2	K1& K2	2	K2	2 (K3&K3)	2(K2&K3)
CIA II	CLO 3	Up to K4	2	K1& K2	1	K1	2 (K3&K3)	2(K3&K4)
	CLO 4	Up to K2	2	K1& K2	2	K2	2 (K2&K2)	1(K2)
Question Pattern (CIA I & II)	No. of Questions to be asked		4		3		4	3
	No. of Questions to be answered		4		2		2	2
	Marks for each question		1		2		5	10
	Total Marks for each section		4		6		10	20

- CLO5 will be allotted for individual Assignment which carries five marks as part of CIA component.

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated %
K1	2	2	-	-	4	6.67	67
K2	2	4	10	20	36	60.00	
K3	-	-	10	10	20	33.33	33
K4	-	-	-	-	-	-	-
Total Marks	4	6	20	30	60	100.00	100%

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	2	2	-	-	4	6.67	50
K2	2	4	10	10	26	43.33	
K3	-	-	10	10	20	33.33	33
K4	-	-	-	10	10	16.67	17
Total Marks	4	6	20	30	60	100.00	100%

Mapping of Course Learning Outcomes (CLO's) with Programme Specific Outcomes (PSO's):

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CLO 1	3	3	2	3	-	2
CLO 2	3	3	3	3	2	1
CLO 3	3	3	3	3	2	2
CLO 4	3	3	3	3	2	2
CLO 5	3	3	3	3	3	3

3- Advance application; 2- Intermediate level; 1- Basic level

Mapping of Course Learning Outcomes (CLO's) with Programme Outcomes (PO's):

	PO 1	PO 2	PO 3	PO 4	PO 5
CLO 1	3	3	2	2	1
CLO 2	3	3	2	2	-
CLO 3	2	3	2	2	-
CLO 4	3	2	2	3	-
CLO 5	3	3	3	2	1

3- Advance application; 2- Intermediate level; 1- Basic level

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

Units	CLOs	K-Level	Section – A		Section – B		Section – C (Either / or Choice)	Section – D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K-Level	No. of Questions	K-Level		
1	CLO 1	Up to K2	Up to K2	2	K1 & K2	1	K1	2(K2&K2)
2	CLO 2	Up to K3	Up to K3	2	K1 & K2	1	K2	2(K3&K3)
3	CLO 3	Up to K4	Up to K4	2	K1 & K2	1	K3	2(K4&K4)
4	CLO 4	Up to K2	Up to K2	2	K1 & K2	1	K2	2(K2&K2)
5	CLO 5	Up to K3	Up to K3	2	K1 & K2	1	K2	2(K3&K3)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

Distribution of Section-Wise Marks with K Levels

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (No Choice)	Section D (No Choice)	Total Marks	% of Marks (without choice)	Consolidated
K1	5	4	10	-	19	15.83	67
K2	5	6	30	20	61	50.83	
K3	-	-	10	20	30	25.00	25
K4	-	-	-	10	10	8.33	8
Total Marks	10	10	50	50	120	100.00	100

B.A. ECONOMICS SYLLABUS – UNDER CBCS PATTERNStudents admitted from the academic year 2018-19 onwards

Sl. No.	Course Title	Course Code	Hours per Week	Credit
SEMESTER – V				
1.	Macro Economics – I (C)	18U5VMC9	6	4
2.	Economics of Development and Planning (C)	18U5VMC10	5	4
3.	Labour Economics (C)	18U5VMC11	6	5
4.	Environmental Economics (CE)	18U5VMC12	6	5
5.	Fundamentals of Computer (CE)	18U5VMC13	5	4
6.	Retail Marketing (SBE)	18U5VSM5	2	2
	Extension Activity		-	1 (25)
SEMESTER – VI				
7.	Macro Economics – II (C)	18U6VMC14	6	5
8.	Indian Economics (C)	18U6VMC15	6	6
9.	Public Finance (C)	18U6VMC16	5	4
10.	Economic Thinkers (CE)	16U6VMC17	5	4
11.	Entrepreneurship Development (CE)	18U6VMC18	6	6
12.	Human Resource Management (SBE)	18U6VSM6	2	2 (27)

C – Core, CE – Core Elective, SBE – Skill Based Elective**Credits**

Major Subjects : 116

Language Subjects : 24

Total : 140

Subjects	Internal		External	
	Time	Marks	Time	Marks
Core	2 hours	25	3 hours	75
Core Elective	2 hours	25	3 hours	75
Non Major Elective	2 hours	25	3 hours	75
Allied	2 hours	25	3 hours	75
Skill Based Elective	2 hours	25	3 hours	75
Environmental Studies	2 hours	25	2 hours	75
Value Education	2 hours	25	2 hours	75

C.I.A. AND END SEMESTER EXAMINATION COMPONENTS FOR B.A.ECONOMICS

for CORE and CORE ELECTIVE Courses

I – Components of C.I.A. for B.A. Economics – Maximum 25 Marks

i) Test	-	15 Marks
ii) Assignment	-	5 Marks
iii) Attendance	-	5 Marks
		<hr/>
Total	-	25 Marks
		<hr/>

C.I.A. Test – Maximum 30 Marks – Scale down to 15 Marks

Part – A (6 x 1 = 6 Marks)

- Answer all objective type – multiple choice questions (5 questions)

Part – B (4 x 3 = 12 Marks)

- Answer all questions either A (or) B from each question (Paragraph type)

Part – C (2 x 6 = 12 Marks)

- Answer any 2 question out of 3 (Essay Type)

II – End Semester Exam Components for B.A. Economics

Time : 3 Hours

Maximum Marks: 75

Part – A (10 x 1 = 10 Marks)

- Answer All objective type – multiple choice questions (10 questions)
- 2 Questions from each unit

Part – B (5 x 7 = 35 Marks)

- Answer All questions either A (or) B from each question
- 2 Questions from each unit

Part – C (3 x 10 = 30 Marks)

- Answer Any 3 THREE out of 5 questions (Essay Type)
- 1 Question from each unit

Blue Print for Semester Question Paper Setting for B.A. Economics
for CORE and CORE ELECTIVE Courses

Section	Unit – I	Unit – II	Unit – III	Unit – IV	Unit – V	Total Questions
Part – A (Objective Type - Multiple Choice Questions)	2	2	2	2	2	10
Part – B (Either A or B Type)	2	2	2	2	2	10
Part – C (Open Choice Essay Type)	1	1	1	1	1	5

Time: 3 Hours

Maximum Marks: 75

Part – A (10 x 1 = 10 Marks)

- Answer All objective type – multiple choice questions (10 questions)
- Question Number starts from 1 to 10

Part – B (5 x 7 = 35 Marks)

- Answer All questions either A (or) B from each question
- Question Number starts from 11 (a) or 11 (b) to 15 (a) or 15 (b)

Part – C (3 x 10 = 30 Marks)

- Answer Any THREE questions out of 5 questions (Essay Type)
- Question Number starts from 16 to 20.

Department	Economics	Class	III - B.A.		Semester	V
Course Title	Macro Economics - I	Hours	Credit	CIA	External	Total
Course Code	18U5VMC9	90	4	25	75	100

Objectives

1. To know the basic macroeconomic concepts.
2. To acquire knowledge about National Income and Consumption Function.
3. To understand theories of Employment and its determinants.

Learning Outcome

1. Acquire knowledge in fundamentals of macroeconomics.
2. Familiar with National Income Concepts and its estimation.
3. Examine the importance of consumption function and theories of consumption.
4. Analyse the Classical and Keynesian Theories of Employment
5. Understand the various models of trade cycle.

Unit-I: Nature of Macro Economics

Meaning – Definitions – Importance – Differences and Relation between Micro Economics and Macro Economics – Economic Statics, Dynamics and Comparative statics – Economic system.

Unit-II: National Income

Meaning – Definitions – Importance – Concepts: GNP, GDP, NNP, NDP, Per-capita Income, Disposable Income, Personal Income, Real Income – Methods of Calculating National Income – Difficulties of Calculating National Income.

Unit-III: Consumption Function

Meaning – Importance – Consumption Function Schedule – Keynes Psychological Law of Consumption – Determinants of Consumption Function – Properties or Technical Attributes of the Consumption Function.

Unit-IV: Theories of Employment

Meaning of Full Employment – Types of Unemployment – Classical Theory of Employment – Say's Law of Markets – Keynes's Theory of Employment – Aggregate Demand Function and Aggregate Supply Function.

Unit-V: Trade Cycle

Meaning – Features – Classification – Phases – Control of Trade Cycle – Sunspot Theory – Psychological Theory – Innovation Theory and Monetary Theory.

Text Books

1. Maria John Kennady, M. (2011). **Macro Economic Theory**. New Delhi: PHI Learning Pvt. Ltd.
2. Cauvery, R. and Sudhanayak, & U. K. (2006). **Macro Economics**. New Delhi: S. Chand & Co. Ltd.
3. Dwivedi, D. N. (2008). **Macro Economics**. New Delhi: Tata McGraw - Hill Publishing Company Limited.

References

1. Jhingan, M. L. (2008). **Macro Economic Theory**. New Delhi: Vrinda Publications (P) Ltd.
2. Gupta, G. S. (2008). **Macro Economic Theory and Applications**. New Delhi: Tata McGraw - Hill Publishing Company Limited.
3. Ahuja, H. L. (2010). **Macro Economics: Theory and Policy**. New Delhi: S. Chand & Co. Ltd.

Websites / e-books

1. https://d3bxy9euw4e147.cloudfront.net/oscms-prodcms/media/documents/Macroeconomics2e-OP_08uAIKN.pdf
2. <https://2012books.lardbucket.org/pdfs/theory-and-applications-of-macroeconomics.pdf>
<https://www.bu.edu/econ/files/2014/08/DLS1.pdf>

Department	Economics	Class	III - B.A.		Semester	V
Course Title	Economics of Development and Planning	Hours	Credit	CIA	External	Total
Course Code	18U5VMC10	75	4	25	75	100

Objectives

1. To understand the determinants & problems in economic development.
2. To know about various theories of economic development.
3. To familiar with the role of different sectors in economic development.
4. To identify the importance of capital formation and planning.

Learning Outcome

1. Can differentiate economic growth and economic development
2. Acquire knowledge on theoretical background of economic development.
3. Outline the role of various sectors in economic development.
4. Understand the importance of capital formation and reasons for low capital formation.
5. Evaluate the various five year plans in India.

Unit-I: Introduction

Meaning – Definitions – Features – Difference between Economic Growth and Economic Development – Factors Affecting Economic Development – Obstacles to Economic Development – Role of the State in Economic Development

Unit-II: Theories of Economic Development

Adam Smith's Theory – Rostow's Stages of Development – Marxian Theory – Lewis Theory of Unlimited Supply of Labour – Doctrine of Balanced and Unbalanced Growth.

Unit-III: Capital Formation and Economic Development

Capital Formation – Meaning – Importance – Stages – Reasons for Low Capital Formation – Measures to Rise Capital Formation – Human Capital Formation.

Unit-IV: Development Issues

Role of Agricultural and Industrial Development – Technology and Technological Change – Role of Technology – Problems – Remedies.

Unit-V: Planning

Meaning – Features – Role of Planning – Types – Difficulties – Conditions for Successful Planning – Objectives – Achievements and Failures of XI and XII Five Year Plans – Niti Aayog: Objectives and Functions.

Text Books

1. Jhingan, M. L. (2003). **The Economics of Development and Planning**. New Delhi: Vrindha Publications Pvt. Ltd.
2. Agarwal, R. C. (2011). **Economics of Development and Planning**. Agra: Lakshmi Narain Agarwal.

References

1. Taneja, M. L., and Myer, R. M. (2010). **Economics of Development and Planning**. Delhi: Vishal Publishing House.
2. Misra, S., and Puri, V. K. (2002). **Economics of Development and Planning**. New Delhi: Himalaya Publishing House.
3. Lekhi, R. K. (2009). **Economics of Development and Planning**. New Delhi: Kalyani Publishers.

Website / e-book

1. <http://www.economicwebinstitute.org/books>
2. https://www.academia.edu/31858453/M.L._Jhingan_The_Economics_of_Development_and_Planning
3. <https://www.freebookcentre.net/business-books-download/Economic-Growth-Lecture-Notes.html>

Department	Economics	Class	III – B.A.		Semester	V
Course Title	Labour Economics	Hours	Credit	CIA	External	Total
Course Code	18U5VMC11	90	5	25	75	100

Objectives

1. To understand the basic concepts of labour economics.
2. To trace the evolution of trade union movement in India.
3. To identify the reasons and corrective measures for industrial disputes.
4. To understand wage theories and various social security measures.

Learning Outcome

1. Understand the basic labour economic concepts.
2. Outline the importance, objectives and workings of Indian Trade Union Movement.
3. Identify industrial disputes and methods to solve industrial disputes.
4. Examine the various theories of wages.
5. Explain the different social security measures in India.

Unit-I: Introduction

Meaning of Labour – Nature and Scope of Labour Economics – Labour as Factor of Production – Importance of Labour Economics – Special Characteristics of Labour – Characteristics of Indian Labour – Meaning of Organised and Unorganised Labour.

Unit-II: Trade Unions

Meaning of Trade Unions – Origin and Growth of Trade Unions – Role of Trade Unions – Marxian Ideas of Trade Union – Gandhian Ideas of Trade Union – Objectives of Trade Unions – Classifications and Pattern of Trade Unions – Functions of Trade Unions – Present Status.

Unit-III: Industrial Relations

Industrial Relations – Meaning of Industrial Disputes – Causes – Preventive Measures – Workers Participation in Management – Role of Incentives – Human Relations in Industry – Principles of Personnel Management.

Unit-IV: Theories of Wages

Residual Claimant Theory – Marginal Productivity Theory of Wages – Methods of Wage Payment – Real Wage – Money Wage – Minimum Wage – Fair and Living Wages.

Unit-V: Social Security

Meaning of Social Security – Objective of Social Security – The Concept of Social Insurance – Commercial Insurance – Social Assistance – Social Security in India – Role of International Labour Organisations with Special Reference to Indian Economy – GPF – EPF – CPS/NPS – ESI – GIS: Objectives and Functions.

Text Book

1. Tyagi, B. P. (2008). **Labour Economics and Social Welfare**. Meerut: Jai Prakash Nath & Co.
2. Saxena, R. C. (1986). **Labour Problems and Social Welfare**. Meerut: K. Nath & Co.
3. Kulshrestha, U. C. (2005). **Labour Problems and Social Welfare**. Agra: Lakshmi Narain Agarwal.

References

1. Sharma, A. K. (2006). **Labour Economics**. New Delhi: Anmol Publications Pvt. Ltd.
2. Cahue, Pierre and Zylberberg, Andre. (2009). **Labour Economics**. New Delhi: PHI Learning (P) Ltd.
3. Desai, S. S. M. and Bhalerao, N. (2012). **Industrial Economy of India**. Mumbai: Himalaya Publishing House.
4. Sinha, P. R. N., InduBala Sinha & Seema Priyadharhini Shekhar. (2011). **Industrial Relations, Trade Unions and Labour Legislations**. Noida: Pearson Dorling Kindersly (India) Pvt. Ltd.
5. Datt, Ruddar and Sundaram, K. P. M. (2010). **Indian Economy**. New Delhi: S. Chand & Company Ltd.
6. Agarwal, A. N. (2011). **Indian Economy – Problems of Development and Planning**, New Delhi: New Age International Publishers (P) Ltd.

Website / e-book

1. https://www.e-elgar.com/sites/e-elgar/files/industrial-labour-economics_1.pdf
2. https://www.academia.edu/24939684/Labor_Economics_-_George_Borjas

Department	Economics	Class	III – B.A.		Semester	V
Course Title	Environmental Economics	Hours	Credit	CIA	External	Total
Course Code	18U5VMC12	90	5	25	75	100

Objectives

1. To understand the foundations of environmental economics.
2. To know about ecological systems.
3. To assess the various sources of energy.
4. To identify the different types of pollution.
5. To aware about the environmental conservation methods.

Learning Outcome

1. Acquire knowledge on environmental economic components.
2. Explain the ecological segments and eco systems.
3. Outline the importance of energy resources and its present scenario.
4. Sketch the various problems of pollution and its effects.
5. Summarise the different conservation methods.

Unit-I: Introduction

Definition and Role of Environmental Economics – Economics and Environment – Transformation Curve – Scope and Significance of Environmental Economics – Integration of Conservation and Development.

Unit-II: Ecology

Environmental Ecology – Environmental Segments – Ecology and Eco Systems – Organisation – Structure and Dynamics of the Eco System – Biotic Elements – Abiotic Elements.

Unit-III: Energy

Meaning of Energy – Sources of Energy and Classification – Renewable and Non-Renewable Sources of Energy – Conventional and Non-Conventional Energy Resources – Energy Scenario in India.

Unit-IV: Pollution

Water Pollution: Definition – Classification – Water Pollution in India – Control – Ensuring Adequate Supply of Pure Water – Marine Pollution – Causes and Extent – Marine National Park – Air Pollution – Atmospheric Structure – Causes and Effects – Acid Rain – Photo Chemical Smog – Ozone Depletion – Effects of Deteriorating Air Quality – Air Pollution in Indi – Bhopal Gas Tragedy.

Unit-V: Conservation of Resources

Conservation of Resources – Conservation and Preservation – Man’s Impact on Resources – Conservation Awareness – Methods of Conservation – Material Substitution – Product Life Extension – Recycling Waste Reduction.

Text Books

1. Sharma, B. K. (2009). **An Introduction to Environmental Pollution**. Goel Publishing House, Meerut.
2. Karpagam, M. (1991). **Environmental Economics: A Text Book**. New Delhi: Sterling Publishers Pvt. Ltd.
3. Sankaran, S. (2012). **Environmental Economics**. Chennai: Margham Publishers.

References

1. Eugene, T. (2010). **Environmental Economics**. New Delhi: Vrinda Publishers.
2. Jhingan, M. L. and Chander K. Sharma (2011). **Environmental Economics – Theory, Management and Policy**. Delhi: Vrinda Publications (P) Ltd.
3. Katar Singh and Anil Shishodia (2009). **Environmental Economics – Theory and Applications**. New Delhi: Sage Publications.
4. Metha, Mundle and Sankar, U. (2008). **Controlling Pollution: Incentives and Regulations**. New Delhi: Sage Publications.
5. Nick Hanely, Jason F. Shogren and Ben White. (2009). **Environmental Economics in Theory and Practice**. New Delhi: Macmillan India Limited.

Websites / e-books

1. <https://epdf.pub/queue/natural-resource-and-environmental-economics.html>
2. <https://www.ebooks.com/en-us/subjects/business-environmental-economics-ebooks/1322/>
3. <https://www.amazon.in/Environmental-Economics-Theroy-Management-Policy-ebook/dp/B00YE2GEGE>

Department	Economics	Class	III – B.A.		Semester	V
Course Title	Fundamentals of Computer	Hours	Credit	CIA	External	Total
Course Code	18U5VMC13	75	4	25	75	100

Objectives

1. To understand the basic knowledge about computers.
2. To know about operating systems.
3. To identify the applications of MS office.
4. To evaluate the basics of internet.

Learning Outcome

1. Can aware about the fundamentals of computer.
2. Access the workings of Operating System.
3. Working knowledge about MS-Word.
4. Able to operate worksheet and present PowerPoint.
5. Apply the internet in Business and Commercial activities.

Unit-I: Fundamentals of Computer

Definition – Generation of Computer – Components of a Computer – Advantages – Types of Computer System – Basic Architecture of CPU: ALU, MU, CU – Types of Memory – Basic Input Devices – Output Devices – Computer Software: System Software, Application Software and Utility Software.

Unit-II: Operating System

MS-DOS – Advantages and Disadvantages – Internal Commands – External Commands.

MS-Windows – Meaning – Basic Components – Desktop – Start Menu – My Computer – Control Panel – Accessories.

Unit-III: MS-Office-I: Word Processing

Introduction to MS-Office – Features and Advantages – MS-Word – Types of Views – Functions of Keys in MS-Word – Creation of Documents – Editing a Text – Formatting a Text – Working with Table – Using Tools: Spelling Check, Treasures, Dictionary – Mail Merge

Unit-IV: MS-Office-II: Electronic Spreadsheet and Slide Presentation

MS-Excel: Introduction – Structure of Spreadsheet – Working with Spreadsheet – Calculation Operators: Arithmetic, Comparison, Text, Reference and Other Operators – Auto Filling – Chart – Creation of Chart – Types of Chart.

MS-Power Point: Introduction – Creating a Presentation – Customizing a presentation – Working with different views – Insert objects – Templates.

Unit-V: Internet Basics

Internet – Features and Advantages – www – Networking – Types of Networking Communication: E-mail; Chat; Voice Mail – Use of Business and Commercial Activities like E-commerce, E-banking.

Text Books

1. Rajaraman, V. (1996). **Fundamentals of Computers**. New Delhi: Prentice Hall of India Pvt. Ltd.
2. Sanders, D. H. (1988). **Computer Today**. New York: McGraw Hill.
3. Ravichandran, D. (2001). **Introduction to Computers and Communication**. New Delhi: Tata McGraw Hill Publishing Company Ltd.

References

1. Kanter. (2000). **Introduction to Computers – Management Information Systems**. New Delhi: Prentice Hall of India Pvt. Ltd.
2. Saxena, Sanjay. (2007). **A First Course in Computer**. New Delhi: Vikas Publishing House Pvt. Ltd.
3. Gupta, C. P. (2013). **Fundamentals of Computer and Information Technology**. Agra: Laxmi Narain Agarwal.

Websites / e-books

1. <https://edutechlearners.com/computer-fundamentals-p-k-sinha-free-pdf/>
2. <https://www.amazon.in/Computer-Fundamentals-Anita-Goel-ebook/dp/B00AE3T6LC>
3. <https://www.indiamart.com/proddetail/fundamentals-of-computer-and-information-technology-6265105991.html>

Department	Economics	Class	III – B.A.		Semester	V
Course Title	Retail Marketing	Hours	Credit	CIA	External	Total
Course Code	18U5VSM5	30	2	25	75	100

Objectives

1. To understand the knowledge in retail business
2. To explain retail location theories.
3. To aware information technology in retail business.

Learning Outcome

1. Acquire knowledge in functions of retailing.
2. Categorize the classification of retailers.
3. Examine the Retail Location Theories.
4. Identify the present situation of Retail Market Segmentation in India
5. Apply information technology in Retail Business

Unit-I: Introduction

Retailing: Meaning and Definitions – Features of Retailing – Functions of Retailing –Retailing Format.

Unit-II: Retailers

Retailers: Meaning and Functions – Characteristics of Retailers – Classification of Retailers by Philip Kotler.

Unit-III: Retail Location

Criteria in selecting location for retail business – Types of Decisions on Retail Location – Factors Determining Retail Location – Retail Location Theories: Central Place Theory, Bid Rent Theory and Principle of Minimum Differentiation.

Unit-IV: Retail Market Segmentation

Retail Market Segmentation: Meaning and Benefits – Criteria for Effective Market Segmentation – Retail Market Segmentation in India.

Unit-V: Information Technology in Retailing

Information Technology: Meaning and Advantages – Limitations of Using Information Technology – Electronic Retailing.

Text Books

1. Natarajan, L. (2009). **Retail Marketing**. Chennai: Margham Publications.
2. Chetan Bajaj, Rajnish Tuli and Nidhi V. Srivastava (2014). **Retail Management**. New Delhi: Oxford University Press.

References

1. Barry Bermann, Evans, Joel R. and Mini Mathur. (2011). **Retail Management – A Strategic Management**”, (2011), Pearson Publishers, New Delhi.
2. Jain, J. N. and Singh, P. P., **Modern Retail Management: Principles and Techniques**, (2007), Regal Publications, New Delhi.

Website / e-book

1. <https://www.freebookcentre.net/business-books-download/Retail-Marketing.html>
2. <https://www.springer.com/gp/book/9783658046293>

Department	Economics	Class	III – B.A.		Semester	VI
Course Title	Macro Economics – II	Hours	Credit	CIA	External	Total
Course Code	18U6VMC14	90	5	25	75	100

Objectives

1. To know the role of and determinants of investment and interest rate.
2. To acquire knowledge on multiplier and acceleration principle.
3. To analyse causes and effects of inflation and deflation
4. To understand macro economic theories of distribution.
5. To know about objectives of macroeconomic policies.

Learning Outcome

1. Can determine volume of investment.
2. Familiar with multiplier and acceleration concepts.
3. Explain causes and various theories of inflation.
4. Examine theories of income distribution.
5. Understand the macroeconomic policies and its instruments.

Unit-I: Investment Function

Meaning – Types of Investment – Determinants of Investment: MEC: Meaning, Calculation, Factors Determining Marginal Efficiency of Capital, Relationship among the MEC, the MEI and Rate of Interest.

Unit-II: Multiplier and Accelerator

Meaning – Assumptions, Importance, Leakages of Multiplier, Significance of Multiplier, Criticisms, Significance – Types of Multiplier – Acceleration, Principles of Accelerator – Super Multiplier.

Unit-III: Inflation and Deflation

Definition, Types, Effects, Control, Inflationary Gap, Modern Theories of Inflation, Deflation – Meaning, Effects, Deflationary Gap – Stagflation – Disinflation – Reflation.

Unit-IV: Theories of Distribution

Ricardian Theory of Income Distribution – Marxian Theory of Income Distribution – Kaldor's Theory of Macro Distribution.

Unit-V: Macro Economic Policies

Meaning – Objectives – Monetary Policy: Meaning, Objectives and Instruments – Fiscal Policy: Meaning, Objectives and Limitation.

Text Books

1. Maria John Kennady, M. (2011). **Macro Economic Theory**. New Delhi: PHI Learning Pvt. Ltd.
2. Cauvery, R. and Sudhanayak, & U. K. (2006). **Macro Economics**. New Delhi: S. Chand & Co. Ltd.
3. Dwivedi, D. N. (2008). **Macro Economics**. New Delhi: Tata McGraw - Hill Publishing Company Limited.

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1. Jhingan, M. L. (2008). **Macro Economic Theory**. New Delhi: Vrinda Publications (P) Ltd.
2. Gupta, G. S. (2008). **Macro Economic Theory and Applications**. New Delhi: Tata McGraw - Hill Publishing Company Limited.
3. Ahuja, H. L. (2010). **Macro Economics: theory and policy**”, New Delhi.: S. Chand & Co. Ltd.

Websites / e-books

1. https://d3bxy9euw4e147.cloudfront.net/oscms-prodcms/media/documents/Macroeconomics2e-OP_08uAIKN.pdf
2. <https://2012books.lardbucket.org/pdfs/theory-and-applications-of-macroeconomics.pdf>
3. <https://www.bu.edu/econ/files/2014/08/DLS1.pdf>

Department	Economics	Class	III – B.A.		Semester	VI
Course Title	Indian Economics	Hours	Credit	CIA	External	Total
Course Code	18U6VMC15	90	6	25	75	100

Objectives

1. To outline the basic characteristics of Indian economy.
2. To recognize the importance of balanced regional development.
3. To analyze performance of Indian public sector and the need of Privatization.
4. To know the role and significance of foreign capital.
5. To identify reasons for parallel economy and its remedies.

Learning Outcome

1. Able to understand salient features of Indian economy.
2. Evaluate the causes of backwardness and its policy measures.
3. Analyze the performance of Indian public sectors.
4. Explain the role of FDI.
5. Outline the reasons for black money

Unit-I: Features of Indian Economy

Under Development – Meaning – Features – Predominance of Agricultural Sector – Per Capita Income – Inequalities – Inadequate Capital Formation – Infrastructure – Technological Backwardness – Demographic Pressures – Unemployment and Employment – Low Quality Human Capital – Low Social Development – Mixed Economy – Features – India as Developing Economy – Sustained Growth – Self-Reliance – Changes in Agriculture – Industry – Foreign Trade – Science and Technology.

Unit-II: Balanced Regional Development

Meaning of Regional Disparities – Indicators – Causes of Economic Backwardness – Five-Year Plans and Industrial Backwardness – Policy Measures to Remove the Regional Disparities.

Unit-III: Public Sector and Issues of Privatisation

Meaning of Public Sector – Role of Public Sector in Indian Economy – Growth – Performance – Shortcomings – Measures to Improve the Performance of PSUs – Privatization: Meaning – Scope – Disinvestment Policy on Privatisation in India.

Unit-IV: Foreign Capital

Meaning of Foreign Capital – Categories and Composition – Significance of Foreign Capital – Government Policy Towards Foreign Capital – Advantages and Disadvantages of Foreign Capital – Flow of Foreign Investment in the Post-Reform Period - A Critical Appraisal.

Unit-V: Parallel Economy

Meaning of Parallel Economy – Causes – Effects of Black Income on the Economic and Social System – Measures to Unearth Black Economy – Corruption – Meaning – Causes – Corruption and Development in India – NITI Aayog.

Text Book

1. Agarwal, A. N. (2011). **Indian Economy – Problems of Development and Planning**. New Delhi: New Age International Publishers (P) Ltd.
2. Deepashree. (2011). **Indian Economy – Performance and Policies**. New Delhi: Ane Books Pvt. Ltd.
3. Agarwal, H. S. (2007). **Simple Indian Economics**. Agra: Lakshmi Narain Agarwal.
4. Sankaran, S. (2014). **Indian Economy**. Chennai: Margham Publications.

References

1. Datt, Ruddar and Sundaram, K. P. M. (2011). **Indian Economy**. New Delhi: S. Chand & Company Ltd.
2. Dhingra, I. C. (2010). **The Indian Economy**. New Delhi: Sultan Chand & Sons.
3. Misra, S. K. and Puri, V. K. (2011). **Indian Economy**. Mumbai: Himalaya Publishing House.
4. Hariharan, N. P. (2005). **Lights and Shades of Indian Economy**. Jalandhar: Vishal Publishing Co.

Website / e-book

1. <https://www.amazon.in/Indian-Economy-Ramesh-Singh-ebook/dp/B0774SJ7TL>
2. <https://www.goodreads.com/book/show/8094649-indian-economy-since-independence>

Department	Economics	Class	III – B.A.		Semester	VI
Course Title	Public Finance	Hours	Credit	CIA	External	Total
Course Code	18U6VMC16	75	4	25	75	100

Objectives

1. To know the meaning and scope of public finance.
2. To examine causes for an increase in public expenditure in modern days and to identify various sources of public revenue.
3. To acquire basic knowledge on taxation.
4. To classify public debt and budget.
5. To explain centre – state financial relationship.

Learning Outcome

1. Compare public finance with private finance.
2. Evaluate the effects of public expenditure.
3. Able to compare direct tax and indirect tax.
4. Outline budgetary procedure followed in India.
5. Examine the role of federal finance.

Unit-I:Introduction

Meaning of Public Finance – Scope and Importance of Public Finance – Role of the State on Economic Activities – Comparison of Public Finance and Private Finance – Principle of Maximum Social Advantage.

Unit-II:Public Expenditure and Public Revenue

Public Expenditure – Meaning – Classification – Canons of Public Expenditure – Causes for the Growth of Public Expenditure – Effects of Public Expenditure.

Public Revenue – Meaning – Sources of Public Revenue – Tax Revenue and Non-Tax Revenue: Grants and Gifts – Administrative Revenue – Commercial Revenue.

Unit-III:Taxation

Meaning and Definition of Tax – Canons of Taxation – Concepts: Impact, Shifting, Incidence of Taxation – Classification of Taxes – Direct Tax and Indirect Tax (Merits and Demerits) – Effects of Taxation on Production and Distribution – Meaning of Taxable Capacity – Absolute and Relative Taxable Capacity – Factors Determining Taxable Capacity.

Unit-IV: Public Debt and Budget

Meaning – Classification – Objectives of Public Debt – Effects – Methods of Debt Redemption – Burden of Public Debt.

Meaning of Budget – Types of budget – Budgetary procedure in India.

Unit-V: Federal Finance and Fiscal Policy

Federal Finance – Meaning – Importance – Finance Commission – Central and State Financial Relationship – Local Finance – Functions and Problems.

Meaning of Fiscal Policy – Concepts: Fiscal Deficit, Revenue Deficit, Primary Deficit – Objectives – Limitations.

Text Books

1. Sankaran, S. (2007). **Fiscal Economics**. Chennai: MarghamPublicationsi.
2. John Kennady, M. (2012). **Public Finance**. New Delhi: PHI Learning Pvt. Ltd.
3. Agarwal, R. C. (2011). **Public Finance**. Agra: Lakshmi Narain Agarwal.
4. Cauvery, R., Sudhanayak, U. K., Girija, M., and Meenakshi, R. (2000). **Public Finance**. New Delhi: S. Chand & Co. Ltd.
5. Sundaram, K. P. M. (2004). **Public Finance**. New Delhi: S. Chand & Company Ltd.

Reference Books

1. Tyagi, B. P. (2004). **Public Finance**. Meerut: Jai Prakash Nath & Co.
2. Bhatia, H. L. (2006). **Public Finance**. New Delhi: Vikas Publishing House Pvt. Ltd.
3. Jhingan, M.L. (2012). **Public Finance**. New Delhi: Vrinda Publications (P) Ltd.

Websites / e-books

1. <https://bookauthority.org/books/best-public-finance-ebooks>
2. <https://www.amazon.in/PUBLIC-FINANCE-AMBAR-GHOSH-ebook/dp/B00OPV7RII>

Department	Economics	Class	III – B.A.		Semester	VI
Course Title	Economic Thinkers	Hours	Credit	CIA	External	Total
Course Code	18U6VMC17	75	4	25	75	100

Objectives

1. To trace the evolution of economic thought.
2. To know the various views of classical and neo- classical thinkers.
3. To analyse socialist and communist economic ideas.
4. To outline the contribution of modern economic thinkers.
5. To identify the history of Indian economic thoughts.

Learning Outcome

1. Explain the history of economic thought in the earlier period.
2. Compare classical views with neo – classical ideas.
3. Evaluate various defects of socialism and communism.
4. Able to understand the views of modern economists.
5. Outline the growth of Indian economic thoughts.

Unit-I: Significance of Economic Thought, Mercantilists and Physiocrats

Definition – Nature – Scope and Classification – Significance of the Study of Economic Thought – Mercantilism Meaning – Physiocrats – Factors Responsible for Physiocracy.

Unit-II: Classical and Neo-Classical Economists

Classicism Economist: Adam Smith – Malthus: Population Theory – David Ricardo – J. B. Say – Neo-Classical Economist: Alfred Marshall, J. B. Clark and Irving Fisher.

Unit-III: Socialists and Communists

Socialism: Definition, Features, Defects and Forms of Socialism – Karl Marx Scientific Socialism – Communism: Lenin, Stalin and Gorbachev.

Unit-IV: Modern Economists

Modern Economic Thought: J. M. Keynes – D. H. Robinson – J. R. Hicks – J.A. Schumpeter – Mrs. Joan Robinson – P. A. Samuelson.

Unit-V: Indian Economic Thought

Thiruvalluvar – Kautilya – Dada Bhai Naoroji – R. C. Dutt – G. K. Gokale – Gandhian Economics – Jawaharlal Nehru – V. K. R. V. Rao – B. R. Ambedkar – C. Rajagobalachari – Amertya Sen – Abijith Banerjee.

Text Books

1. Jingan, M.L., Girija, M. and ManiMekalai, A. (2003). **History of Economic Thought**. New Delhi: Vrinda Publications.
2. Kulshrestha, U. C. (2007). **History of Economic Thought**. Agra: Lakshmi Narain Agarwal Educational Publishers.
3. Lokanathan, V. (1995). **A History of Economic Thought**. New Delhi: S. Chand & Company Ltd.
4. Sankaran, S. (2006). **A History of Economic Thought**. Chennai: Margham Publications.

References

1. EurestoScrepanti and Stefano Zamagni. (2005). **An Outline of the History of Economic Thought**. New York: Oxford University Press.
2. Ghosh, B. N. and Rama Ghosh, (1990). **Concise History of Economic Thought**. Mumbai: Himalaya Publishing House.
3. Srivastava, S. K. (2002). **History of Economic Thought**. New Delhi: S. Chand & Co.

Websites / e-books

1. <https://www.free-ebooks.net/academic-economics/Historical-Materialism-and-the-Economics-of-Karl-Marx>
2. <https://www.free-ebooks.net/academic-economics/Economics-Of-Nobel-Laureates>
3. <https://www.kobo.com/us/en/ebook/a-brief-history-of-economic-thought>
4. <https://www.amazon.in/History-Economic-Thought-William-Barber-ebook/dp/B00519B6QW>

Department	Economics	Class	III – B.A.		Semester	VI
Course Title	Entrepreneurship Development	Hours	Credit	CIA	External	Total
Course Code	18U6VMC18	90	6	25	75	100

Objectives

1. To acquire knowledge of basic entrepreneurship concepts.
2. To know the importance of women entrepreneurship and rural entrepreneurship in India.
3. To identify various entrepreneurial motivation.
4. To search an opportunity to start a SSI.
5. To find financial sources available to SSIs

Learning Outcome

1. Explain the characteristics and functions of entrepreneurship.
2. Analyse the problems of women entrepreneurs in India.
3. Able to outline the entrepreneurial motivation.
4. Acquire knowledge to start a small scale unit.
5. Identify the sources of industrial finance.

Unit-I: Entrepreneur and Entrepreneurship

The Concept of Entrepreneur – Definition – Characteristics and Functions of Entrepreneur – Distinction between Entrepreneur and Manager – Types of Entrepreneur – The Concept of Entrepreneurship – The Role of Entrepreneurship in Economic Development.

Unit-II: Women Entrepreneurs and Rural Entrepreneurship

Women Entrepreneurs – Concept – Functions of Women Entrepreneurs – Problems – Women Entrepreneurship in India – Rural Entrepreneurship – Need for Rural Entrepreneurship – Problems – Measures to Develop Rural Entrepreneurship.

Unit-III: Entrepreneurial Motivation

Entrepreneurial Motivation Theories – Motivation Process – Motivating Factors – Entrepreneurial Mobility – Factors Influencing Mobility – Need for Entrepreneurship Development Programmes – Objectives of EDPs.

Unit-IV: Small Scale Industries and Project Identification

Small Scale Industries – Definition – Types of Small Scale Industries – Characteristics – Importance of Small Enterprises in Economic Development – Problems of Small Scale Industries – Project Identification and Selection – Project Classification – Formulation of Project Report – Significance of Project Report – Contents of Project Report.

Unit-V: Institutional Finance to Entrepreneurs

IFCI – ICICI – IDBI – IRBI – SIDBI – EXIM Bank – UTI – LIC – SFC – SIDC – TIIC – Commercial Banks.

Text Books

1. Gupta, C. B. and Srinivasan, N. P. (2003). **Entrepreneurial Development**. New Delhi: Sultan Chand and Sons.
2. Suresh, Jayshree. (2003). **Entrepreneurial Development**. Chennai: Margham Publications.
3. Rengarajan, L. (2008). **Entrepreneurial Development**. Rajapalayam: SreeRenga Publications.

References

1. Khanka, S. S. (2004). **Entrepreneurial Development**. New Delhi: S. Chand & Company Ltd.
2. Baporikar, Neeta. (2002). **Entrepreneurship and Small Industries**. Mumbai: Himalaya Publishing House.
3. Arora, Renu and Sood, S. K. (2003). **Fundamentals of Entrepreneurship and Small Business**. New Delhi: Kalyani Publishers, Ludhiana.
4. Vasant Desai (2003). **Small Scale Industries and Entrepreneurship**. Mumbai: Himalaya Publishing House.

Websites / e-books

1. <https://www.freebookcentre.net/business-books-download/Entrepreneurial-Development.html>
2. <https://tim-halloran.com/entrepreneurship-development-ebook-free-download/>

Department	Economics	Class	III – B.A.		Semester	VI
Course Title	Human Resource Management	Hours	Credit	CIA	External	Total
Course Code	18U6VSM6	30	2	25	75	100

Objectives

1. To know about scope of HRM.
2. To aware on organizational structure of HR.
3. To familiar with computer applications in HRM.
4. To acquire knowledge on job analysis.
5. To understand recruitment and selection process.

Learning Outcome

1. Understand the fundamentals of HRM.
2. Comprehend the organizational design of HR
3. Discuss the computer applications in HRM.
4. Aware in techniques of job analysis.
5. Identified common interviewing mistakes.

Unit-I: Introduction

Meaning – Scope of HRM – Objectives of HRM – Features of HRM – Influencing Factors.

Unit-II: Organizational Structure and HRM

Organizational Design of HR – Organization structure of HR in a line organization – Organization Structure of HR in a line and staff organization.

Unit-III: Human Resource Information System

Definitions – Functional Components of HRIS – Advantages of Using Computers in HRIS – Computer Applications in HRM.

Unit-IV: Job Analysis

Job Analysis: Meaning – Definitions – Techniques of Job Analysis – Advantages – Uses of Job Analysis.

Unit-V: Recruitment and Selection Process

Recruitment and selection: Meaning – Constraints and Challenges – Selection Process – Employment Planning and Forecasting – Employment Inducement Approach – Types of Tests – Types of Interviews – Common Interviewing Mistakes – Designing and Conducting Effective Interview.

Text Books

1. Balaji, C. D. (2017). **Human Resource Management**. Chennai: MarghamPublicitions.
2. Gupta, Shashi. K. and Rosy Joshi. (2008). **Human Resource Management**. New Delhi: Kalyani Publishers.

References

1. Dessler, Gary. (2016). **Human Resource Management** (15th Edition). Noida: Pearson Publications.
2. Rao, S. P. (2000). **Human Resource Management: Text and Cases**. New Delhi: Excel Books.
3. Prasad, L. M. (2018). **Human Resource Management**. New Delhi: Sultan Chand and Sons.
4. Rao, P. L. (2005). **Comprehensive Human Resource Management**. New Delhi: Excel Books.

Websites / e-books

1. <https://www.topfreebooks.org/free-human-resources-and-personal-management-books/>
2. <https://www.freebookcentre.net/business-books-download/Introduction-to-Human-Resource-Management.html>

DEPARTMENT OF ECONOMICS				CLASS: I B.Com (General, PA, B&I, CM)				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
I	Allied 1		Business Economics	4	6	25	75	100

Course Objectives

- To acquaint knowledge on managerial economics and apply appropriate principles in business decision
- To identify and trace various utilities and to infer the law of diminishing marginal utility
- To demonstrate the Law of Demand, Elasticity of Demand and Forecasting of Demand
- To familiarize the concept of factors of production and make a solid foundation on ISO Quant and ISO Cost lines
- To sensitize the concept of pricing policies and strategies in different business situations

Unit	Course Contents	Hours
I	Nature, Scope and Methods of Managerial Economics Meaning - Definition - Nature and scope of managerial economics - Methods of managerial economics - Role and functions of managerial economist – Managerial economics with other disciplines - Basic concepts in managerial economics.	18
II	Cardinal Utility Analysis Introduction - Concepts of Utility - Total, Marginal Utility - Law of Diminishing Marginal Utility - Law of Equi-Marginal Utility - Consumer's surplus.	18
III	Demand and Demand Forecasting Demand – Meaning – Definition - Law of Demand - Demand determinants- Elasticity of Demand - Types of Elasticity of Demand - Degrees of Price Elasticity of Demand - Measurement of elasticity of Demand - Meaning of demand forecasting - Methods of demand forecasting for established products.	18
IV	Production, Costs and Revenue Analysis Introduction - Features of factors of production - Law of returns (Increasing, Constant and Diminishing) – Isoquant - Iso-cost line- TC – VC – FC – AC – MC – AR – MR - Factors of Production.	18
V	Pricing Policies and Strategies Pricing - Pricing policy - Formulation of pricing policy - Objectives of pricing policy - Factors involved pricing policy - Pricing strategies - Skimming pricing and Penetration pricing - Pricing over the life cycle of a product - Cyclical pricing - Transfer pricing - Differential pricing - Full cost pricing.	18

Books for Studys

1. R. Cauvery, U.K. SudhaNayak, M. Girija and R. Meenakshi "*Managerial Economics*", 2002, S.Chand& Co, New Delhi.
2. V.G. Mankar, "*Business Economics*", 1999, Marcmillan India Ltd, New Delhi.

Books for Reference

1. M.L. Jhingan and J. K Stephen, "*Managerial Economics*", 2012, Vrinda Publications (P) Ltd., Delhi.
2. Varshney and Maheswary, "*Managerial Economics*", 2004, Sultan Chand & Co., Delhi.
3. Managerial Economics, D. M. Mithani, "*Managerial Economics*", 2006, Himalaya Publishing House, Delhi.
4. Branton, Noel and James M. Livingstone, "*Managerial Economics in Practice*", 2001, Oxford University Press, Delhi.

Web Resources

www.edushareonline.in, www.swlearning.com

Pedagogy: Chalk & Talk, Assignments, PPTs, Caselets

Course Learning Outcomes:

CLOs	On completion of the course, the students should be able to	K- Level
CLO1	Describe the concepts of managerial economics and apply appropriate principles in business decision	Up to K2
CLO2	Group various utilities and Apply Diminishing Marginal Utility at various situations	Up to K3
CLO3	Make use of Law of Demand, Elasticity of Demand and Forecasting of Demand in various market conditions	Up to K3
CLO4	Examine various factors of production and Law of Returns to production	Up to K4
CLO5	Identify appropriate policies, methods and strategies	Up to K3

Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (POs)

Course Learning Outcomes (CLOs)	Programme Outcomes (with Graduate Attributes)					
	PO 1 (Knowledge Base)	PO 2 (Problem Analysis & Investigation)	PO 3 (Communication Skills & Design)	PO 4 (Individual and Team Work)	PO 5 (Professionalism, Ethics and equity)	PO 6 (Life Long Learning)
CLO 1	3	1	3	2	2	3
CLO 2	3	3	2	1	2	3
CLO 3	3	2	3	2	2	3
CLO 4	2	1	3	3	3	2
CLO 5	3	2	3	2	2	3

3- Advanced Application

2- Intermediate Development

1 - Introductory

Mapping of Course Learning Outcomes (CLOs) with Programme Specific Outcomes (PSOs)

Course Learning Outcomes (CLOs)	Programme Specific Outcomes (with Graduate Attributes)					
	PSO 1 (Knowledge Base)	PSO 2 (Problem Analysis & Investigation)	PSO 3 (Communication Skills & Design)	PSO 4 (Individual and Team Work)	PSO 5 (Professionalism, Ethics and equity)	PSO 6 (Life Long Learning)
CLO 1	3	1	3	2	2	3
CLO 2	3	3	2	1	2	3
CLO 3	3	2	3	2	2	3
CLO 4	2	1	3	3	3	2
CLO 5	3	2	3	2	2	3

3- Advanced Application

2- Intermediate Development

1 - Introductory

**Learning Outcome Based Education (LOBE) & Assessment
Formative Examination - Blue Print**

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

Internal	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
CIA I	CLO 1	Up to K 2	2	K1& K2	1	K1	2 (K2&K2)	1(K2)
	CLO 2	Up to K3	2	K1& K2	2	K2	2 (K3&K3)	2(K2 & K3)
CIA II	CLO 3	Up to K 3	2	K1& K2	1	K2	2 (K2&K2)	1(K2)
	CLO 4	Up to K 4	2	K1& K2	2	K2	2 (K3&K3)	2(K3 &K4)
Question Pattern CIA I & CIA II	No. of Questions to be asked		4		3		4	3
	No. of Questions to be answered		4		3		2	2
	Marks for each question		1		2		5	10
	Total Marks for each section		4		6		10	20

Distribution of Marks with K Level CIA I & CIA II

	K Levels	Section A (Multiple Choice Questions)	Section B (Short Answer Questions)	Section C (Either/Or Choice)	Section D (Open Choice)	Total Marks	% of (Marks without choice)	Consolidated %
CIA I	K1	2	2	-	--	4	6.67	67
	K2	2	4	10	20	36	60	
	K3	-	-	10	10	20	33.33	33
	K4	-	-	-	-	-	-	-
	Marks	4	6	20	30	60	100	100
CIA II	K1	2	2	-	--	4	6.67	50
	K2	2	4	10	10	26	43.33	
	K3	-	-	10	10	20	33.33	33
	K4	-	-	-	10	10	16.67	17
	Marks	4	6	20	30	60	100	100

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

CLO5 will be allotted for individual Assignment which carries five marks as part of CIA component.

Learning Outcome Based Education & Assessment (LOBE)

Summative Examination- Blue Print

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

S. No.	CLOs	K- Level	Section A				Section B (Either/or Choice)	Section C (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO 1	Up to K 2	2	K1&K2	1	K1	2 (K1&K1)	1(K2)
2	CLO 2	Up to K 3	2	K1&K2	1	K1	2 (K3&K3)	1(K3)
3	CLO 3	Up to K 3	2	K1&K2	1	K2	2 (K3&K3)	1(K3)
4	CLO 4	Up to K 4	2	K1&K2	1	K2	2 (K4&K4)	1(K4)
5	CLO 5	Up to K 3	2	K1&K2	1	K2	2 (K2&K2)	1(K3)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Marks with K Level

K Levels	Section A (Multiple Choice Questions)	Section B (Short Answer Questions)	Section C (Either/Or Choice)	Section D (Open Choice)	Total Marks	% of (Marks without choice)	Consolidated %
K1	5	4	10	-	19	15.83	42
K2	5	6	10	10	31	25.83	
K3	-	-	20	30	50	41.67	42
K4	-	-	10	10	20	16.67	16

NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.

Summative Examinations - Question Paper – Format

Course Title : Business Economics

Course Code :

Time : 3 hours

Maximum Marks : 75

Section A (Multiple Choice Questions)

Answer All Questions

(10x1=10 marks)

Q.No.	CLO	K Level	Questions
1	CLO1	K1	
2	CLO1	K2	
3	CLO2	K1	
4	CLO2	K2	
5	CLO3	K1	
6	CLO3	K2	
7	CLO4	K1	
8	CLO4	K2	
9	CLO5	K1	
10	CLO5	K2	

Section B (Short Answers)

Answer All Questions

(5 x 2 = 10 marks)

Q.No.	CLO	K Level	Questions
11	CLO1	K1	
12	CLO2	K1	
13	CLO3	K2	
14	CLO4	K2	
15	CLO5	K2	

Section C (Either/Or Type)

Answer All Questions

(5 x 5 = 25 marks)

Q.No.	CLO	K Level	Questions
16) a	CLO1	K1	
16) b	CLO1	K1	
17) a	CLO2	K3	
17) b	CLO2	K3	
18) a	CLO3	K3	
18) b	CLO3	K3	
19) a	CLO4	K4	
19) b	CLO4	K4	
20) a	CLO5	K2	
20) b	CLO5	K2	

Section D (Open Choice)

Answer Any Three questions

(3x10=30 marks)

Q.No.	CLO	K Level	Questions
21	CLO1	K2	
22	CLO2	K3	
23	CLO3	K3	
24	CLO4	K4	
25	CLO5	K3	

NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.

LESSON PLAN

Unit	Course Contents	Hours	Mode
I	Nature, Scope and Methods of Managerial Economics Meaning - Definition - Nature and scope of managerial economics	6	Chalk & Talk, PPT
	Methods of managerial economics Role and functions of managerial economist –Managerial economics with other disciplines	6	
	Basic concepts in managerial economics.	6	
II	Cardinal Utility Analysis Introduction - Concepts of Utility -Total, Marginal Utility	7	Chalk & Talk, PPT
	Law of Diminishing Marginal Utility - Law of Equi-Marginal Utility	8	
	Consumer's surplus.	3	
III	Demand and Demand Forecasting Demand – Meaning – Definition - Law of Demand – Demand determinants	6	Chalk & Talk, PPT, Assignment
	Elasticity of Demand - Types of Elasticity of Demand - Degrees of Price Elasticity of Demand - Measurement of elasticity of Demand	6	
	Meaning of demand forecasting - Methods of demand forecasting for established products.	6	
IV	Production, Costs and Revenue Analysis Introduction - Features of factors of production - Law of returns (Increasing, Constant and Diminishing) –	8	Chalk & Talk, PPT,
	Isoquant - Iso-cost line- TC – VC – FC – AC – MC – AR – MR	6	
	Factors of Production.	4	
V	Pricing Policies and Strategies Pricing - Pricing policy - Formulation of pricing policy - Objectives of pricing policy - Factors involved pricing policy	8	Chalk & Talk, PPT, Assignment, Case lets
	Pricing strategies - Skimming pricing and Penetration pricing – Pricing over the life cycle of a product - Cyclical pricing -	6	
	Transfer pricing– Differential pricing - Full cost pricing.	4	

Name of the Course Designer: Dr.C.S.Theenadayalan, Head& Associate Professor,
Department of Economics& Centre for Research in Economics

<i>DEPARTMENT OF ECONOMICS</i>				<i>CLASS: I B.Com (General, PA, B&I, CM)</i>				
Sem	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
II	Allied		International Economics		90	25	75	100

Course Objectives

- To differentiate internal trade from international trade and gains from international trade.
- To obtain knowledge and skill about the trade policy.
- To know about structure and components of balance of payments.
- To evaluate the letter of credit, bills of credit and lading.
- To familiar in foreign exchange, international economic institutions and integrations

Unit	Course Content	Hours
I	Introduction Meaning of International Economics – Definitions – subject matter – Internal vs. International Trade – Similarities – Differences – Gains from International Trade	18
II	Terms of Trade Meaning of Terms of Trade – Types – Balance of Trade vs. Balance of Payments – Favourable and Unfavourable balance of trade – Free Trade – Meaning – Case for and against Free Trade – Protection – Meaning – Arguments for and against Protection	18
III	Balance of Trade and Balance of Payments Meaning of Balance of trade and Balance of Payments – Components – Causes for disequilibrium in Balance of Payments – Measures to correct disequilibrium in Balance of Payments.	18
IV	Letter of Credit, Bills of Exchange and Bills of Lading Meaning – Types of Letter of Credit – Mechanism of Letter of Credit – Bills of Exchange – Types of Bills of Exchange – Demand Bills – Sight Bills – D/A and D/P. Bills of Lading – Meaning – Types.	18
V	Foreign Exchange International Economic Institutions Meaning of exchange rate – kinds – Factors determining exchange rate - International Economic Institutions: IMF –World Bank (IBRD) – WTO – Objectives and Functions – Trade blocks: SAARC, ASEAN & BRICS.	18

Text Books

1. M. L. Seth (2007), “**Money, Banking, International Trade and Public Finance**”, Lakshmi Narain Agarwal, Agra.
2. M. L. Jhingan (2011), “**International Economics**”, Vrinda Publications (P) Ltd, Delhi.

References

1. M. C. Vaish Sudama Singh (2006), “**International Economics**”, Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi.
2. K. C. Rana & K. N. Verma (2012), “**International Economics**”, Vishal Publishing Co., Jalandar, Delhi.
3. W. Charles Sawyer & Richard L. Sprinkle (2010), “**International Economics**”, PHI Learning Private Ltd, New Delhi.

Websites / e-books

1. <https://www.e-booksdirectory.com/> E-Books directory is a daily growing list of links to freely accessible eBooks?
2. <https://www.saylor.org>
3. <https://www.springer.com>

Pedagogy: Chalk and Talk, Peer Teaching and Learning, ICT enabled teaching aids.

S. No.	COURSE OUTCOME	Knowledge Level
CLO1	Student gets equipped with the knowledge on subject matter of international economics and gains from international trade.	Up to K1
CLO2	Examine the case for and against free trade and protection	Up to K3
CLO3	Evaluate the causes for disequilibrium and measures to control it	Up to K4
CLO4	Analyze the letter to credit, bill of exchange and bills of lading	Up to K4
CLO5	Outline the objectives and functions of international economic institutions	Up to K2

**Learning Outcome Based Education & Assessment (LOBE)
Formative Exam – Blue Print (CIA I & II)
Articulation Mapping - K Levels with Course Learning Outcomes (CLOs)**

Internal	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
CIA I	CLO 1	Up to K1	2	K1& K1	1	K1	2 (K1&K1)	1(K1)
	CLO 2	Up to K4	2	K1& K2	2	K2	2 (K4&K4)	2(K3&K4)
CIA II	CLO 3	Up to K3	2	K1& K2	1	K1	2 (K3&K3)	1(K3)
	CLO 4	Up to K4	2	K1& K2	2	K2	2 (K3&K3)	2(K3&K4)
Question Pattern (CIA I & CIA II)	No. of Questions to be asked		4		3		4	3
	No. of Questions to be answered		4		2		2	2
	Marks for each question		1		2		5	10
	Total Marks for each section		4		6		10	20

- CLO5 will be allotted for individual Assignment which carries five marks as part of CIA component.

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated %
K1	2	2	10	10	24	40.00	50
K2	2	4	-	-	06	10.00	
K3	-	-	-	10	10	16.67	17
K4	-	-	10	10	20	33.33	33
Total Marks	4	6	20	30	60	100.00	100%
K Levels	Section A (No Choice)	Section B (No Choice)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	2	2	-	-	4	6.67	17
K2	2	4	-	-	6	10.00	
K3	-	-	20	20	40	66.67	67
K4	-	-	-	10	10	16.66	16
Total Marks	4	6	20	30	60	100.00	100%

Mapping of Course Learning Outcomes (CLO's) with Programme Specific Outcomes (PSO's):

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CLO 1	3	3	3	2	3	2
CLO 2	3	2	3	1	-	-
CLO 3	3	3	3	2	-	3
CLO 4	3	2	3	-	-	3
CLO 5	3	3	3	1	-	3

Mapping of Course Learning Outcomes (CLO's) with Programme Outcomes (PO's):

	PO 1	PO 2	PO 3	PO 4	PO 5
CLO 1	3	1	3	3	2
CLO 2	3	3	3	2	-
CLO 3	3	2	3	3	1
CLO 4	3	3	2	3	3
CLO 5	3	3	2	2	2

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

Units	CLOs	K-Level	Section – A		Section – B		Section – C (Either / or Choice)	Section – D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K-Level	No. of Questions	K-Level		
1	CLO 1	Up to K1	2	K1 & K2	1	K1	2(K1&K1)	1(K1)
2	CLO 2	Up to K4	2	K1 & K2	1	K1	2(K4 & K4)	1(K4)
3	CLO 3	Up to K3	2	K1 & K2	1	K2	2(K3&K3)	1(K3)
4	CLO 4	Up to K4	2	K1 & K2	1	K2	2(K4&K4)	1(K4)
5	CLO 5	Up to K2	2	K1 & K2	1	K2	2(K2&K2)	1(K2)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

Distribution of Section-Wise Marks with K Levels

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (No Choice)	Section D (No Choice)	Total Marks	% of Marks (without choice)	Consolidated
K1	5	4	10	10	29	24.17	50
K2	5	6	10	10	31	25.83	
K3	-	-	10	10	20	16.67	17
K4	-	-	20	20	40	33.33	33
Total Marks	10	10	50	50	120	100.00	100

Summative Examinations - Question Paper – Format

Course Title : *International Economics*

Course Code :

Time : 3 hours

Maximum Marks : 75

Section A (Multiple Choice Questions)

Answer All Questions

(10x1=10 marks)

Q.No.	CLO	K Level	Questions
1	CLO1	K1	
2	CLO1	K2	
3	CLO2	K1	
4	CLO2	K2	
5	CLO3	K1	
6	CLO3	K2	
7	CLO4	K1	
8	CLO4	K2	
9	CLO5	K1	
10	CLO5	K2	

Section B (Short Answers)

Answer All Questions

(5 x 2 = 10 marks)

Q.No.	CLO	K Level	Questions
11	CLO1	K1	
12	CLO2	K1	
13	CLO3	K2	
14	CLO4	K2	
15	CLO5	K2	

Section C (Either/Or Type)

Answer All Questions

(5 x 5 = 25 marks)

Q.No.	CLO	K Level	Questions
16) a	CLO1	K1	
16) b	CLO1	K1	
17) a	CLO2	K4	
17) b	CLO2	K4	
18) a	CLO3	K3	
18) b	CLO3	K3	
19) a	CLO4	K4	
19) b	CLO4	K4	
20) a	CLO5	K2	
20) b	CLO5	K2	

Section D (Open Choice)

Answer Any Three questions

(3x10=30 marks)

Q.No.	CLO	K Level	Questions
21	CLO1	K1	
22	CLO2	K4	
23	CLO3	K3	
24	CLO4	K4	
25	CLO5	K2	

NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.

LESSON PLAN

Units	Description	Hours	Mode
I	Meaning and Definitions of International Economics Subject matter	2	Chalk and Talk
	Internal vs. International Trade: Similarities and Differences	6	
	Gains from International Trade	5	
		5	
II	Meaning and Types of Terms of Trade	5	Chalk and Talk, Peer Teaching
	Balance of Trade vs. Balance of Payments	2	
	Favourable and Unfavourable balance of trade		
	Free Trade – Meaning – Case for and against Free Trade – Protection – Meaning – Arguments for and against Protection	6 5	
III	Meaning of Balance of trade and Balance of Payments Components	6	Chalk and Talk, PPT
	Causes for disequilibrium in Balance of Payments Measures to correct disequilibrium in Balance of Payments.	6	
		6	
IV	Meaning, Types and mechanism of credit	6	Chalk and Talk, PPT
	Bills of exchange, types of exchange	6	
	Demand bill, sight bill, TA/DA bill and lading	6	
V	Meaning of exchange rate and kinds and factors determining exchange rate	4	Chalk and Talk, PPT
	International Economic Institutions: IMF –World Bank (IBRD) –	5	
	WTO – Objectives and Functions	4	
	Trade blocks: SAARC, ASEAN & BRICS	5	

Course Designer:

1. **Dr. S. Theenathayalan**, Associate Professor and Head, Department of Economics and Centre for Research in Economics

PG Department of Commerce

III B.Com Capital Markets (SF)

Syllabi (Under Choice Based Credit System (CBCS) Pattern)

V Semester & VI Semester

Students those who have joined the Programme from 2018-19 onwards

&

Eighth Revised Curriculum

Common Syllabi for B.Com First Year

(Choice Based Credit System with Outcome Based Education Model)

Academic Year 2020-21 onwards

B.Com	Aided & SF
B.Com (Professional Accounting)	SF
B.Com (Banking & Insurance)	SF
B.Com (Capital Markets)	SF

B.Com (Capital Markets) Course Structure under CBCS Pattern with effect from the Academic Year 2018-19

Semester I					Semester II				
First Year					Second Year				
Category	Course Code	Paper	Hrs	Credit	Category	Course Code	Paper	Hrs	Credit
Part I	17U1KLA1	Business Communication	4	3	Part I	17U2KLA2	Technology for Business Applications	4	3
Part II	17U1NEK1	English -I	6	3	Part II	17U2KEN2	English - II	6	3
Part III					Part III				
Core 1	17U1KMC1	Financial Accounting -I	6	4	Core 3	17U2KMC3	Financial Accounting-II	6	4
Core 2	18U1XMC2	Introduction to Financial Market and Capital Markets Operations	6	4	Core 4	17U2KMC4	Business Statistics	6	4
Allied 1	17U1IAC1	Business Mathematics	4	4	Core 5	17U2KMC5	Marketing	4	4
Part IV					Part IV				
Skill Based Elective	18U1XSM1	NSE Learn to Trade (NLT) – I (Lab)	2	2	Skill Based Elective	18U2XSM2	NSE Learn to Trade (NLT) – II (Lab)	2	2
Skill Based Elective	17U1KES	Environmental Studies	2	2	Skill Based Elective	17U2KVE	Value Education	2	2
		Total	30	22			Total	30	22
Semester III					Semester IV				
Category	Course Code	Paper	Hrs	Credit	Category	Course Code	Paper	Hrs	Credit
Part III					Part III				
Core -6	18U3XMC6	Corporate Finance	4	4	Core -9	18U4XMC9	Back Office & Depository Operations & Clearing & Settlement Risk	4	4
Core-7	17U3KMC7	Cost Accounting	6	4	Core-10	18U4XMC10	Foreign Exchange & Currency Markets	5	4
Core-8	17U3KMC8	Partnership Accounts	6	4	Core-11	17U4KMC11	Special Accounts	6	4
Allied-2	17U3KAC2	Company Law & Practice	5	4	Allied-4	18U4XAC4	Mutual Fund & Commodity Markets	5	4
Allied-3	18U3XAC3	Derivative Market	5	4	Allied-5	17U4KAC5	Business Legislation - I	6	4
Part IV					Part IV				
Skill Based Elective	18U3XSM3	NSE Learn to Trade (NLT) – III (Lab)	2	2	Skill Based Elective	18U4XSM4	Computer Applications in Financial Markets	2	2
Non Major Elective	17U3KNM1	Tamil - I	2	2	Non Major Elective	17U4KNM2	Tamil -II	2	2
		Total	30	24			Total	30	24

Semester V					Third Year		Semester VI		
Category	Course Code	Paper	Hrs	Credit	Category	Course Code	Paper	Hrs	Credit
Part III					Part III				
Core -12	18U5XMC12	Regulatory Framework, Taxation & Money Laundering	5	5	Core -14	17U6KMC14	Management Accounting	6	5
Core-13	17U5KMC13	Corporate Accounting	6	5	Core-15	18U6XMC15	Financial Planning & Wealth Management	6	5
Core Elective-1	17U5KME1	Income Tax-I	6	4	Core Elective-4	17U6KME4	Income Tax –II	6	4
Core Elective-2	17U5KME2	Business Legislation - II	6	4	Core Elective-5	18U6XME5	Internship (Broker Office Training)	5	4
Core Elective-3	18U5XME3	Fundamental Analysis & Technical Analysis	5	4	Core Elective-6	17U6KME6	Indirect- Tax	5	4
Part IV					Part IV				
Skill Based Elective	18U5XSP5	Computer Applications in Trading Workstation	2	2	Skill Based Elective	17U6KSM6	Soft Skills	2	2
Total			30	24	Total			30	24

The Madura College (Autonomous), Madurai – 11
PG Department of Commerce

III B.Com (Capital Markets) under Self Finance stream
 (Students those who have joined the Programme from 2018-19 onwards)

V Semester

Category	Course Code	Paper	Hrs	Credit
Core -12	18U5XMC12	Regulatory Framework, Taxation & Money Laundering	5	5
Core-13	17U5KMC13	Corporate Accounting	6	5
Core Elective-1	17U5KME1	Income Tax-I	6	4
Core Elective-2	17U5KME2	Business Legislation - II	6	4
Core Elective-3	18U5XME3	Fundamental Analysis & Technical Analysis	5	4
Part IV				
Skill Based Elective	18U5XSP5	Computer Application in Trading Workstation	2	2
Total			30	24

VI Semester

Category	Course Code	Paper	Hrs	Credit
Core -14	17U6KMC14	Management Accounting	6	5
Core-15	18U6XMC15	Financial Planning & Wealth Management	6	5
Core Elective-4	17U6KME4	Income Tax –II	6	4
Core Elective-5	18U6XME5	Internship (Broker Office Training)	5	4
Core Elective-6	17U6KME6	Indirect Tax	5	4
Part IV				
Skill Based Elective	17U6KSM6	Soft Skills	2	2
Total			30	24

III B.Com (Capital Markets)

(Students those who have joined the Programme from 2018-19 onwards)

V Semester

Course Code	Course Title	C	H	I	E	T
18U5XMC12	Regulatory Framework, Taxation & Money Laundering	5	75	25	75	100

Learning Objectives

- To understand the basic knowledge on financial system and regulatory structure in India
- To gain working knowledge on SEBI and Intermediary specific regulations
- To know the Prevention of Money Laundering Act

Learning Outcomes: After the completion of the course, the students will able to describe financial and regulatory structure in India, apply appropriate regulations in share trading suggested by SEBI and other specific regulations. Understand the knowledge of Prevention of Money Laundering Act

Unit-I: Introduction to the Financial and Regulatory Structure in India

Introduction to the Financial System- Regulatory Framework- General View. Introduction to Compliance.

Unit-II: SEBI Regulations

SEBI Act, 1992; Securities Contracts (Regulation) Act, 1956 - Securities Contracts (Regulation) Rules, 1957- SEBI (Intermediaries) Regulations, 1992 - SEBI (Prohibition of Insider Trading) Regulations, 1992 - SEBI (Prohibition of Fraudulent and Unfair Trade Practices Relating to Securities Market) Regulations, 2003 - SEBI (KYC Registration Agency) Regulations, 2011

Unit-III: Intermediary Specific Regulations – Part I

SEBI (Stock Brokers and Sub-brokers) Regulations, 1992 - Listing Agreement and SEBI (Delisting of Securities) Guidelines, 2003 - SEBI (Merchant Bankers) Regulations, 1992 - SEBI Takeover Code and SEBI (Buyback of Securities) Regulations, 2006 - SEBI (Issue of Capital Disclosure and Requirements) Regulations, 2009

Unit-IV: Intermediary Specific Regulations – Part - II

SEBI (Depositories) Regulations, 1996 - SEBI (Depositories and Participants) Regulations - SEBI (Bankers to an Issue) Regulations, 1994 - SEBI (Underwriters) Regulations, 1993 - SEBI (Debenture Trustees) Regulations, 1993 - SEBI (Credit Rating Agencies) Regulations, 1999 - SEBI (Custodian of Securities) Regulations, 1996;

Unit-V: Prevention of Money Laundering Act

Prevention of Money Laundering Act, 2002- Highlights of PMLA, 2002 - General obligations - AML guidelines issued by SEBI - SEBI (Foreign Portfolio Investors) Regulations, 2014.

Book for Study:

Securities Intermediaries Compliance (Non-Fund) National Institute of Securities Markets, An Educational Initiative of SEBI, Edition Sep. 2015, Taxmann Publication Pvt. Ltd., New Delhi.

III B.Com (Capital Markets)

(Students those who have joined the Programme from 2018-19 onwards)

Course Code	Course Title	C	H	I	E	T
17U5KMC13	Corporate Accounting	5	90	25	75	100
Learning Objectives <ul style="list-style-type: none">To lay the foundations in company accounts viz., Issue of shares and debenturesTo gain working knowledge on preparation of final accounts and business combinationsTo solve the problems pertaining to liquidation of companies						
Learning Outcomes: Knowledge on Issue of shares, ability to prepare final accounts and working knowledge and skill on preparation of accounting for business combination, reconstruction and liquidation of companies						

Unit-I: Issue of Equity, Preferences Shares and Debentures

Issue of Equity Shares, Preferences Shares and Debentures – Issue at Par, Premium and Discount – Forfeiture and Re-issue of Shares – Redemption of Preference shares – Redemption of Debentures - Legal provisions.

Unit-II: Profit Prior to Incorporation and Underwriting

Profit Prior to Incorporation – Treatment of Profit or Loss prior to incorporation- Methods of ascertaining Profit or Loss Prior to Incorporation- Steps involved in ascertaining Pre and Post Incorporation Profits
Underwriting – Underwriting Commission – Types – Complete Underwriting – Partial Underwriting and Firm underwriting.

Unit-III: Final Accounts of Companies

Introduction - Legal Aspects as per Schedule III (Section 129) of Companies Act, 2013 - Part I Form of Balance Sheet – Part II Form of Statement of Profit and Loss - Managerial Remuneration - Preparation of Statement of Profit and Loss and Balance Sheet (Simple problems only).

Unit-IV: Accounting for Mergers and Amalgamation

Corporate Restructuring – Types of Restructuring - Business Combinations Ind AS 103 - Amalgamation - Amalgamation in the Nature of Merger – Amalgamation in the Nature Purchase – Accounting Entries in the books of Amalgamated Companies.

Unit-V: Liquidation of Companies

Meaning of Liquidation – Order of Payment – Statement of Affairs - Liquidator's Final Statement of Accounts – Liquidators Remuneration.

Note: The Questions should be asked in the ratio of 80% Problems and 20% for theory

Book for Study:

S.P. Jain & K.L. Narang, Advanced Accountancy, Vol.II, Corporate Accounting, Kalyani Publishers, Ludhiana.

Books for Reference

- T.S. Reddy & Dr. A. Murthy, *Corporate Accounting*, 6th Edition, 2015, Margham Publications, Chennai.
- Dr. M.A. Arulanandam & Dr. K. S. Raman, *Advanced Accountancy*, Vol.II Corporate Accounting, Revised Edition 2012, Himalaya Publishing House, Mumbai.
- R. L. Gupta & M. Radhaswamy, Advanced Accountancy, Vol.II, Sultan Chand & Sons, New Delhi.

III B.Com (Capital Markets)

(Students those who have joined the Programme from 2018-19 onwards)

Course Code	Course Title	C	H	I	E	T
17U5KME1	Income Tax I	4	90	25	75	100
Learning Objectives <ul style="list-style-type: none">To gain knowledge of the provisions of income tax law relating to the topics mentioned in the contentsTo gain ability to solve problems on computation of tax of various sources of Income						
Learning Outcomes: Ability to compute income tax liability independently. Understanding and application of Advance tax and TDS						

Unit-I: Introduction to Income-Tax

Introduction – Machinery for Taxation – Various Authorities – Central Board of Direct Taxes - Appellate Tribunal - Basis of charge – Definitions – Assessment year – Previous year – Assessee – Person – Income – Capital and Revenue – Residential Status – Rules for determining residential status – Incidence of tax – Income exempted from Tax.

Unit-II: Income from Salary

Introduction – Definition – Characteristics – Allowances – Perquisites – Profit in lieu of salary – Gratuity – Provident fund – Kinds – Deduction from salary income – Deduction in respect of entertainment allowance – Tax on employment.

Unit-III: Income from House Property

Introduction – Definitions – Charge on Annual Value – Income from House Property Wholly Exempt from Tax – Computation of Income from House Property – Let out House – Self Occupied House – Gross Annual value – Adjusted Annual Value – Deductions U/S 24.

Unit-IV: Profits and Gains of Business and Profession

Introduction – Definitions – Computation of Income under Business and Profession – Allowable expenses – Expenses expressly disallowed. Depreciation – Meaning – Conditions for depreciation – Normal and additional depreciation - Actual Cost of Assets – Computation of Depreciation – Unabsorbed depreciation.

Unit-V: Capital Gains

Introduction – Definitions – Types – Computations – Exemptions U/S 54 – Short Term Capital Gain – Long Term Capital Gain – Rate of Taxes.

Note: The Questions should be asked in the ratio of 80% Problems and 20 % for theory

Book for Study:

Dr.Vinod K. Singhania & Dr. Monica Singhania, Students' Guide to Income Tax, Taxmann Publications Pvt. Ltd.

Books for Reference:

- V.P. Gaur, D.B. Narang, Puja Gaur and Raheev Puri, *Practical Income Tax*, Kalyani Publishers, Ludhiyana.
- T.S. Reddy & Y. Hari Prasad Reddy, *Income Tax Theory, Law & Practice*, Margham Publications, Chennai.
- B.B. Lal & Nitin Vashisht, *Income Tax and Central Sales Tax Law and Practice*, Pearson Education, Delhi.

III B.Com (Capital Markets)

(Students those who have joined the Programme from 2018-19 onwards)

Course Code	Course Title	C	H	I	E	T
17U5KME2	Business Legislation - II	4	90	25	75	100
<ul style="list-style-type: none">• Learning Objectives• To gain the comprehensive knowledge on the business laws viz., Factories Act, Industrial Dispute Act• To know the legal framework for laws pertaining to employees viz., Employees Compensation Act, EST, PF and payment of bonus act• To recognize the change in the various labour laws						
Learning Outcomes: <ul style="list-style-type: none">• Basic knowledge on Factories Act, Industrial Dispute Act• Employees Compensation Act, EST, PF and payment of bonus act						

Unit-I: Factories Act, 1948

Factories Act, 1948 – Object – Definitions – Licensing and Registration – Health, Safety and welfare – Provisions relating to annual leave with wages – Special provision relating to employment of women – Working hours.

Unit-II: Industrial Disputes Act, 1947

Industrial Disputes Act, 1947 – Object – Definitions – Authorities – Legality of strike and lockout procedure for closure – Retrenchment.

Unit-III: Employees' Compensation Act, 1923

Employees' Compensation Act, 1923 – Object – Definitions – Rules regarding payment – Amount and distribution of Compensation.

Unit-IV: Employees' State Insurance Act, 1948 and Employees' Provident Fund & Miscellaneous Provisions Act, 1952

Employees' State Insurance (ESI) Act, 1948 – Object – Definitions – Benefits – ESI Corporation.

Employees' Provident Fund (EPF) & Miscellaneous Provisions (MP) Act, 1952 – Object – Definitions – Schemes

Unit-V: Payment of Bonus Act, 1965 and Trade Unions Act, 1926

Payment of Bonus Act, 1965 – Object – Definitions – Determination of Bonus.

Trade Unions Act, 1926 – Trade Dispute – Trade Union – Registration of trade union – Rights – Duties – Liabilities and Privileges of trade union – Cancellation.

Book for Study

S.N Maheshwari & S.K. Maheshwari, A Manual of Business Law, Edition 2016, Himalaya Publishing House, Delhi.

Books for Reference

1. N.D. Kapoor, Hand Book of Industrial Law, Sultan Chand & Sons, New Delhi
2. Misra N.S. Labour and Industrial Laws, 28th Edition, 2016, Central Publication, Allahabad.
3. Vincent, A. Arputham, labour and Industrial Laws, 2002, Southern Publishers, Karungal.
4. Labour Laws, 2017, Taxman Allied Services Pvt., Ltd., New Delhi.
5. V. Balachandran & S. Thothadri, 2nd Edition, Vijay Nicole Imprint Pvt., Ltd., Chennai.

III B.Com (Capital Markets)

(Students those who have joined the Programme from 2018-19 onwards)

Course Code	Course Title	C	H	I	E	T
18U5XME3	Fundamental Analysis and Technical Analysis	4	75	25	75	100
Learning Objectives <ul style="list-style-type: none">To gain basic knowledge on fundamental and technical analysisTo get comprehensive knowledge on valuation methodologiesTo acquire skill on technical analysis and trading strategies						
Learning Outcomes: Thorough knowledge on Fundamental Analysis and Technical Analysis, valuation methodologies and trading strategies						

Unit-I: Fundamental Analysis: An Introduction

Introduction of fundamental analysis – Meaning - Need of fundamental analysis for investing - Efficient Market Hypothesis (EMH), Arguments against EMH - Importance of fundamental analysis - Steps in Fundamental Analysis.

Unit-II: Understanding Financial Statements

Introduction to financial statements – The Director’s Report - The Auditor’s Report, and Financial Statements: Balance Sheet, Income Statements, Schedules and Notes to the Accounts, Cash Flow Statement - Financial Statement Analysis and Forensic Accounting - Comparative and Common size financial statements - Financial Ratios - Du- Pont Analysis - Cash Conversion cycle - The Satyam case and need for forensic accounting.

Unit-III: Valuation Methodologies

Top-Down valuation (EIC Analysis) – Economy, Industry, and Company - Discounted Cash Flow (DCF) Models - Dividend Discount Model (DDM) - Free Cash Flow to Firm (FCFF) and Free Cash Flow to Equity (FCFE) based DCF - Sum of the part (SOTP) - Price-to-Earnings (PE) ratio - Price-to-Book value (PB) ratio - EV / EBITDA - Price to Sales (P/S) ratio - Special cases of valuation - IPOs - Financial Services firms - Net interest mar in (NIM) - Firms with negative cash flows - Acquisition valuation - Distressed companies.

Unit-IV: Technical Analysis

Introduction to Technical Analysis - Candle Charts - Pattern Study - Major Indicators & Oscillators

Unit-V: Trading Strategies

Day trading - Advantages of day trading - Risks associated with risk day trading – Strategies - Strategies for day trading - Momentum trading strategies - Dow Theory and Elliot Wave Theory - Trading Psychology and Risk Management

Books for Study

NCFM – NSE’s Certification in Financial Markets

- Fundamental Analysis Module, Published by* National Stock Exchange of India Limited ,Mumbai
- Technical Analysis Module, Published by* National Stock Exchange of India Limited, Mumbai

III B.Com (Capital Markets)

(Students those who have joined the Programme from 2018-19 onwards)

Course Code	Course Title	C	H	T
18U5XSP5	Computer Applications in Trading Workstation	2	30	100

Unit-I: Trading Work Station Familiarization:

Buy/sell scripts - Understand real-time online market information - order entries - order status - enquiry and order modifications/cancellations - Order book - Trade book - Net Positions.

Unit-II: Risk Management on Capital Market

Hands on training on risk management capital market operations

Unit-III: Cash Market Risk Management:

Intraday Turnover Limits - Gross Exposure Limits - MtM Limits - Net Buy & Sell Limits - CM Margin Limits (VaR Margin)

Unit-IV: F&O Risk Management:

Intraday Turnover Limits - MtM Limits - Net Buy & Sell Limits - FAO Margin Limits - Closing Margin Limits - Short Option Limits (only for clients)

Unit-V: Technical Analysis:

Live data: current chart + past data –Technical Indicators - Candlestick chart patterns

Note: 100% Practical

Internal : 25 Marks

External : 75 Marks

VI Semester
III B.Com (Capital Markets)

(Students those who have joined the Programme from 2018-19 onwards)

Course Code	Course Title	C	H	I	E	T
17U6KMC14	Management Accounting	5	90	25	75	100

Learning Objectives

- To gain knowledge on Management Accounting Principles and ability to prepare Cash flow and fund flow statements and interpret the financial statements in detail
- To get basic understanding of marginal costing techniques and its applicability in business decision.
- Ability to prepare variance analysis report and budgets

Learning Outcomes

Ability to interpret financial statements and taking business decision based on marginal costing techniques. Preparation of budgets and variance reporting independently.

Unit-I: Introduction to Management Accounting and Analysis of Financial Statements Introduction – Meaning – Nature – Scope – Features – Objectives – Distinction between Financial Accounting and Cost Accounting and Management Accounting. Analysis & Interpretation of Financial Statements: Procedure – Comparative statements – Ratio analysis – Use and significance of ratio analysis- Classification of Ratio – Liquidity ratio – Profitability Ratio - Solvency Ratio - Activity ratios.

Unit-II: Fund Flow Statement and Cash Flow Statement: Fund flow statement: Meaning – Concept – Flow of Funds – Uses – Significance - Limitations – Procedure - Schedule of Change in Working Capital - Statements of Sources and Application of Funds. Cash flow statement (AS3/Ind AS 7): Meaning – Difference between Fund Flow Statement and Cash Flow Statement – Uses – Significance – Limitations - Procedure.

Unit-III: Marginal Costing Marginal Costing - Meaning - Ascertainment – Break even analysis – Margin of Safety – Application of marginal costing- Key (or limiting) Factors – Make or buy decision – Selection of a suitable product- mix – Effect of changes in sales price – Maintaining a desired level of profits – Alternatives methods of production – Diversification of products – Alternative course of action – Level of Activity planning.

Unit-IV: Standard Costing Meaning - Analysis of Variances – Material Variance – Labour Variance – Overheads Variance - Sales variances.

Unit-V: Budgeting and Budgetary Control Meaning – Need for budget – Budgetary control – Budget manual – Budget period – Key factor – Sales budget – Production Budget- Material budget - Cash budget – Master Budget – Zero base Budgeting.

Note: The Questions should be asked in the ratio of 80% Problems and 20 % theory

Book for Study:

Murthy A. & S. Gurusamy, Management Accounting, Vijay Nicole Imprints Private Limited, Chennai.

Books for Reference

1. R.S.N. Pillai, *Management Accounting*, Revised Edition 2015, S.Chand, New Delhi.
2. S.N. Maheshwari, *Management Accounting*, Seventeenth Revised Edition 2012, Sultan Chand & Sons, New Delhi.
3. T.S. Reddy & Y. Hari Prasad Reddy, Cost and Management Accounting, Forth Edition Margham Publications, Chennai

III B.Com (Capital Markets)

(Students those who have joined the Programme from 2018-19 onwards)

Course Code	Course Title	C	H	I	E	T
18U6XMC15	Financial Planning & Wealth Management	5	90	25	75	100

Learning objectives

- To gain knowledge on working of equity markets and various tools in equity investing
- To develop ability to Select and Analysis of Mutual Funds & other Investment Products
- To understand the concept of Personal Financial, Insurance Planning, Retirement, Tax and Estate Planning
- To acquire knowledge on Regulatory, Compliance, Ethical Issues and Operational Aspects of financial transactions

Learning Outcomes: Describe equity markets and apply various tools and options in equity investing. Suggest the suitable financial planning for personal, insurance , retirement and estate and describe Regulatory, Compliance, Ethical Issues and Operational Aspects of financial transactions

Unit-I: Introduction to Indian Financial Market, Segments and Performance

Macro-economic parameters of Indian Economy- Indian Financial Markets -structure of Indian Financial Markets- role of the participants- various Regulators regulating Indian Financial Markets. Nature, functions and types of issues in Primary Markets, - Secondary Markets- types of various Corporate Actions.

Working of equity markets - key equity market indicators-risk and return from equity investing, Compare and contrast various tools and options in equity investing – direct, IPOs, Mutual funds and PMS- Working of debt markets-analytics and indicators- risk and return in debt investing, Compare and contrast various debt products – saving schemes, bonds, deposits and debt mutual funds- derivative markets, products and strategies- hedge, -derivative indicators- structure of Foreign Exchange Market; difference between spot and forward exchange rates; settlement periods; effect of interest rates- calculation of forward exchange rates using: premiums and discounts; interest rate parity.

Unit-II: Selection and Analysis of Mutual Funds & other Investment Products

Meaning and features of a mutual fund- regulatory framework -types of mutual fund products-taxation of Mutual Fund Products- investment options in mutual funds- processes associated with investing in mutual funds- benefits of investing with mutual funds.

Various types of small savings instruments- fixed income / debt instruments- alternate investments, Direct equity as an investment option. Risk, return and portfolio construction principles- Return targets, risk profile and optimisation - Evaluate and select equity funds, debt funds and other funds, Attribute portfolio performance and evaluate the investment alternatives, Evaluate mutual fund portfolios for revisions and rebalancing- Interpret the impact of elements of macroeconomic policies on asset allocation Interpret behavioural biases in decision making and portfolio management,

Unit-III: Managing Investment Risks and Measuring Returns

Define Risk-Common Types of Risk- how to measure risk-concept of return- concept of compounding, Compute Real rate of return vs. nominal return, Compute Tax adjusted return, Compute Risk-adjusted Returns

Unit-IV: Personal Financial, Insurance Planning, Retirement, Tax and Estate Planning

Financial planning- need for financial advisory services-scope of financial advisory services- business model for the delivery of financial advice to client- financial planning delivery process. Asset classes, Portfolio

construction, Practical asset allocation and Rebalancing Strategies - Need for portfolio monitoring and rebalancing- need for insurance in personal finance- requirements for a risk to be insurable- role of insurance in personal finance- steps involved in Insurance Planning Types of Insurance Products- Life Insurance Products, Non-Life Insurance Products- life insurance needs analysis (Human life approach, Needs approach).

Compute and interpret personal finance ratios- cash flow analysis and determine surplus, Understand Budgetary mechanism for households- contingency planning, Estimate financial goals.-Leverage and debt counseling- liquidity, investment and long-term needs- Prioritising and Financing the financial goals- Risk profiling and processes in financial planning, Evaluating insurance needs for life and general insurance, Evaluating choices in retirement planning, Create and interpret comprehensive financial planning solutions for the household.

Retirement planning process- retirement corpus, determining the retirement corpus, retirement products and their features-Income tax principles-Tax aspects of Investment products- Wealth Tax Act and its implication for clients-Estate Planning.

Unit-V: Regulatory, Compliance, Ethical Issues and Operational Aspects of financial transactions

Provisions of the SEBI (Investment Advisers) Regulations, 2013,- Overall framework of the regulatory system,- roles of regulators in detail: MoF, MCA, SEBI, RBI, IRDA, PFRDA, -Role of Self regulatory organizations, -provisions of PMLA, 2002, Detail codes of conduct by SEBI, AMFI, etc, - ethical issues in providing financial advice, - investor complaint redressal mechanism.

Disclosure requirements, -compliances related to transactions, Evaluate and document costing, taxation and procedures, -Regulation relating to insurance, pension and investment products, -Investor queries, grievance redressal and service elements.

Investor types and the acquisition process, -PAN, KYC and other processes, -Demat and Remat processes, -PoA and other agreements, -processes involved for account opening of NR investors, Consolidating, reorganising and folio-keeping, -the process flow in Special situations: minor turns major, NRI to RI and RI to NRI,- Operational aspects related to joint accounts, lien, nomination, transmission - documentation required for financial advice

Book for Study:

1. **Investment Advisor(Level 1)** National Institute of Securities Markets, An Educational Initiative of SEBI, Edition Sep. 2015, Taxmann Publication Pvt. Ltd., New Delhi.
2. **Investment Advisor(Level 2)** National Institute of Securities Markets, An Educational Initiative of SEBI, Edition Sep. 2015, Taxmann Publication Pvt. Ltd., New Delhi.

Books for Reference

1. V.K. Bhalla, Investment Management Security Analysis and Portfolio Management, S.Chand & Company Ltd, New Delhi.
2. Dr. R.P. Rustagi, Investment Analysis and Portfolio Management, Sultan Chand & Sons, New Delhi.
3. Preeti Singh, **Investment Management Security Analysis and Portfolio Management**, 19th Revised Edition, 2015, Himalaya Publishing House, New Delhi.
4. www.investopedia.com.

III B.Com (Capital Markets)

(Students those who have joined the Programme from 2018-19 onwards)

Course Code	Course Title	C	H	I	E	T
17U6KME4	Income Tax - II	4	90	25	75	100
Learning Objectives <ul style="list-style-type: none">To gain knowledge of the provisions of income tax law relating to Income from other sources, Set off, carry forward of losses and clubbing of incomeTo gain ability to solve problems concerning assessee with the status of Individual, HUF, Partnership and companies.						
Learning Outcomes: Ability to compute income tax liability independently. Understanding and application of Advance tax and TDS						

Unit-I: Income from other Sources

Introduction – Definitions – Income falling under this head – General incomes – Specific incomes – Casual Income – Deduction of Tax at Source

Unit-II: Set-Off, Carry forward of losses and Clubbing of Income

Meaning - Set off in the same year within the head and against other head - Carry forward to subsequent year – Clubbing of income.

Unit-III: Gross Total Income, Deductions and Rebates

Computation of Gross Total Income - Deductions U/S 80C to 80U – Rebate U/S 87A

Unit-IV: Computation of Total Tax Liability

Introduction - Computation of Total Tax Liability - Individual – Hindu Undivided Family (HUF) – Firm – Companies (including Minimum Alternate Tax (MAT))

Unit-V: Procedure for Assessment

Procedure for assessment – Types of Assessment- Deduction of Tax at Source – Advance payment of tax – Return of Income – E-Filing Procedure.

Note: The Questions should be asked in the ratio of 80% Problems and 20 % for theory

Book for Study

Dr. Vinod K. Singhania & Dr. Monica Singhania, Students' Guide to Income Tax, Taxmann Publications Pvt. Ltd.

Books for Reference:

- V.P. Gaur, D.B. Narang, Puja Gaur and Raheev Puri, *Practical Income Tax*, Kalyani Publishers, Ludhiana.
- T.S. Reddy & Y. Hari Prasad Reddy, *Income Tax Theory, Law & Practice*, Margham Publications, Chennai.
- B.B. Lal & Nitin Vashisht, *Income Tax and Central Sales Tax Law and Practice*, Pearson Education, Delhi.

III B.Com (Capital Markets)

(Students those who have joined the Programme from 2018-19 onwards)

Course Code	Course Title	C	H	T
18U6XME5	Internship (Broker Office Training)	4	75	100

The students will undergo training on the following aspects:

- Training in the Broker Office
- Dealers' Terminal Training
- Stock Trading
- Customer Acquisition Process
- Investors' Behavior

Modalities for Internship

- Students will undergo 15 days internship training (5 days per month for three months in VI Semester)
- The students will undergo training on various brokers' office and corporate office in and around Tamilnadu as suggested by officials of NSE Academy, Chennai
- The student has to submit the work diary to the concerned guide every month for approval
- On completion of training, he/she has to submit the detailed report along with the work diary with the approval of the guide

Evaluation Pattern

Internship Training:

Work diaries and Report - 50 Marks (Internal 25 marks and External 25 marks)

Viva Voce - 50 Marks (Internal 25 marks and External 25 marks)

III B.Com (Capital Markets)

(Students those who have joined the Programme from 2018-19 onwards)

Course Code	Course Title	C	H	I	E	T
17U6KME6	Indirect Tax	4	75	25	75	100
Learning Objectives <ul style="list-style-type: none">To gain knowledge on concept of Indirect taxation viz., Customs act, GST actTo gain concept and simple problems on customs act as working knowledgeTo understand the concept of GST related terms and its relevance in the GST ActTo be able to solve simple problems on GST						
Learning Outcomes: Comprehensive knowledge on concept of Indirect taxation including GST. Ability to solve simple problems on GST						

Unit-I: Introduction to Indirect Taxation Meaning of Indirect Taxes-Distinction between Direct and Indirect taxes – Constitutional Authority to levy and collect indirect taxes – Cannons of Taxation – Types of Indirect taxes prevailing in India at National level

Unit-II: Customs Act, 1962 Meaning of Customs Duty – Procedure prescribed under the Customs Act to Import Goods and Services – Export of Goods and Services – Types of Customs Duty – Simple Problems in determination of assessable value and determination of Customs Duty Liability – Various Documents involved in Imports and Exports

Unit-III: Goods and Services Tax (Central Goods and Services Tax Act 2017) Introduction - Concept of GST – Framework of GST – Taxes Subsumed under GST – GST council – Definitions – Goods – Services – Consideration – Supplier – Recipient – Business – Person – Taxable Person - Aggregate Turnover – Turnover in a State – Works Contract – Job Work – Meaning and Scope of Supply – Types of Supply – Inward Supply, Outward Supply, Intra-State Supply, Inter-State Supply, Composite Supply, Mixed Supply, Taxable Supply, Exempt Supply – Zero Rated Supply - Continuous supply of Goods – Continuous supply of Services - Levy and Collection of CGST – Forward Charge – Reverse Charge – E-Commerce – Composition Levy – Eligibility – Conditions and Restrictions - Rates of Composition Tax – Exemption – General Exemption – Special/Adhoc Exemption

Unit-IV: Time of Supply of Goods & Services (Forward Charge & Reverse Charge) – Time of Supply of Services (Forward Charge & Reverse Charge) – Change in Rate of Tax in respect of Supply of Goods or Services – Place of Supply of Goods (Domestic) – Place of Supply of Services (Domestic) - Value of Taxable Supply – Inclusions and Exclusions

Unit V: Input Tax Credit Introduction - Eligibility and Conditions for taking ITC – Blocked Credit – Apportionment of Credit – Utilisation of ITC – Reversal of ITC on Inputs and Capital Goods - Taking ITC in respect of inputs and capital goods sent for Job Work - Payment of Tax – Electronic Cash Ledger, Electronic Credit Ledger - Electronic Liability Register – Interest calculation - Registration - Persons liable for Registration – Persons not liable for Registration – Compulsory Registration – Tax Invoice – Bill of Supply - Credit and Debit Notes Returns – Details of outward supply – Details of Inward Supply – Furnishing of Returns – Due date of Filing of Returns

Book for Study

V.S. Datey, *Indirect Taxation*, Taxmann Publication, New Delhi.

Books for Reference

- Indirect Taxes*, Institute of Chartered Accountants of India Publications, New Delhi.
- Indirect Taxes*, Institute of Cost Accountants of India, Kolkata.
- Dr. H.C. Mehrotra and Dr. S.P. Goyal, *Indirect Taxes*, Bhawan Publications, Agra.
- www.gst.gov.in
- www.customes.gov.in

III B.Com (Capital Markets)

(Students those who have joined the Programme from 2018-19 onwards)

Course Code	Course Title	C	H	I	E	T
17U6KSM6	Soft Skills	2	30	25	75	100
Learning Objectives <ul style="list-style-type: none">To gain knowledge on concept of soft skills and its attributesTo understand the concept of body language Team building and group discussionTo get better exposure to prepare CV and to face interviews confidentlyTo sensitise the concept of stress management and time management						
Learning Outcomes <p>Comprehensive knowledge on soft skills, confidence to face interview and preparation of CV independently and ability cope up with time and stress management.</p>						

Unit-I: Introduction to Soft Skills

Meaning – Importance of soft skills – Attributes regarded as soft skills – Knowing yourself – Process of knowing yourself – SWOT analysis – Benefits of SWOT analysis.

Unit-II: Team Building and Group Discussion

Introduction – Meaning – Aspects of team building – Skills needed for teamwork – A model of team building – Team Vs Group – Characteristics of effective team – Role of a team leader – Role of team member.
Group discussion – Meaning – Need – Types of Group discussion – Skills required in a Group discussion – Traits tested in a Group discussion – Group discussion etiquette – Areas to be concentrated while preparing for a group discussion – Techniques to initiate a Group discussion.

Unit-III: Body Language and Etiquette

Introduction – Voluntary and involuntary body language – Body language in building interpersonal relations – Body language in building industrial relations – Types of body language – Gender differences – Female interest and body language.
Etiquette – Introduction – Modern etiquette – Benefits of etiquette – Classification of etiquette manners.

Unit-IV: Preparing CV/ Resume and Interview Skills

Preparing CV/ Resume – Meaning – Difference among Bio Data, CV and Resume – The purpose of CV writing – Types of Resume. Interview Skills - Introduction – Need – Types of interview – Interview panel – Post-interview etiquette – Dress code at interview.

Unit-V: Time Management and Stress Management

Time Management – Introduction – The 80:20 rule – Time management matrix – Analysis of time matrix.
Stress Management – Introduction – Effects of stress – Kinds of stress – Sources of stress – Behaviour identified with stress – Stress Management Tips.

Book for Study

Dr. K. Alex, *Soft Skills*, S.Chand, New Delhi



The Madura College (Autonomous), Madurai-11
Post Graduate Department of Commerce

VISION

To make the Department a modern
 School of Commerce..
 College of Commerce...
 and Commerce Hub...

MISSION

To provide high quality Commerce Education to enable the students to become well qualified professionals such as Chartered Accountants, Cost Accountants, Company Secretaries, Advocates, Academicians, Managers and Entrepreneurs.

Programme Educational Objectives (PEOs)

B.Com (Aided & SF), B.Com (Professional Accounting), B.Com (Banking & Insurance) and B.Com (Capital Markets)

Sl. No.	On completion of the Programme, the student will
PEO1	Possess strong fundamentals of both breadth and width of updated commerce knowledge for developing core competencies with special focus in the areas of Accounting, Marketing, Finance and Taxation.
PEO2	Stimulate the student's capabilities towards innovation and creativity in problem solving skills in business modeling with societal impact.
PEO3	Educate and to deal with the complex issues of the business community in particular and society at large.
PEO4	Communicate effectively by reading with insight, writing effective reports, speaking independently, listening to give effective response, and comprehending & designing in documentation.
PEO5	Uphold and improve the students technical and managerial competencies through career and professional learning Viz., Chartered Accountants(CA), Cost & Management Accountants (CMA), Company Secretary (CS) & other international Professional Courses viz., ACCA(UK), CIMA(UK), CPA(USA) and advanced degree programmes in the field of Commerce.
PEO6	Possess skills on management, leadership and team building among the group, enhanced with social responsibility and ethical values for shaping them as professionals and entrepreneurs.

Washington Accord (WA) Graduate Attributes

Graduate Attributes are the qualities, skills and understanding a university community agrees its students should develop during their time with the institution. These attributes include but go beyond the disciplinary expertise or technical knowledge that has traditionally formed the core of most university courses. They are qualities that also prepare graduates as agents of social good in an unknown future.

WA	Graduate Attributes	Caption as
WA1	A knowledge base for engineering: Demonstrated competence in university level mathematics, natural sciences, engineering fundamentals, and specialized engineering knowledge appropriate to the program.	<i>Knowledge Base</i>
WA2	Problem analysis: An ability to use appropriate knowledge and skills to identify, formulate, analyze, and solve complex engineering problems in order to reach substantiated conclusions	<i>Problem Analysis & Investigation</i>
WA4	Investigation: An ability to conduct investigations of complex problems by methods that include appropriate experiments, analysis and interpretation of data and synthesis of information in order to reach valid conclusions.	
WA10	Communication skills: An ability to communicate complex engineering concepts within the profession and with society at large. Such ability includes reading, writing, speaking and listening, and the ability to comprehend and write effective reports and design documentation, and to give and effectively respond to clear instructions.	<i>Communication Skills & Design</i>
WA3	Design: An ability to design solutions for complex, open-ended engineering problems and to design systems, components or processes that meet specified needs with appropriate attention to health and safety risks, applicable standards, and economic, environmental, cultural and societal considerations.	
WA9	Individual and teamwork: An ability to work effectively as a member and leader in teams, preferably in a multi-disciplinary setting.	<i>Individual and Team Work</i>
WA6	Professionalism: An understanding of the roles and responsibilities of the professional engineer in society, especially the primary role of protection of the public and the public interest.	<i>Professionalism, Ethics and equity</i>
WA8	Ethics and equity: An ability to apply professional ethics, accountability, and equity.	
WA12	(LL) Life-long learning: An ability to identify and to address their own educational needs in a changing world in ways sufficient to maintain their competence and to allow them to contribute to the advancement of knowledge	<i>Life long learning</i>
WA5	Use of engineering tools: An ability to create, select, apply, adapt, and extend appropriate techniques, resources, and modern engineering tools to a range of engineering activities, from simple to complex, with an understanding of the associated limitations.	--
WA7	Impact of engineering on society and the environment: An ability to analyze social and environmental aspects of engineering activities. Such ability includes an understanding of the interactions that engineering has with the economic, social, health, safety, legal, and cultural aspects of society, the uncertainties in the prediction of such interactions; and the concepts of sustainable design and development and environmental stewardship.	--
WA11	Economics and project management: An ability to appropriately incorporate economics and business practices including project, risk, and change management into the practice of engineering and to understand their limitations	--

OBE-Revised Bloom's Taxonomy Action Verbs

	K1 Remembering	K2 Understanding	K3 Applying	K4 Analyzing	K5 Evaluating	K6 Creating
Bloom's Definition	Exhibit Memory of previously learned material by recalling facts, terms, basic concepts & answers	Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions and stating main ideas.	Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalization	Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria.	Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.
Verbs	<ul style="list-style-type: none"> • Choose • Define • Describe • Duplicate • Enumerate • Examine • How • Identify • Label • List • Locate • Match • Match • Name • Omit • Quote • Recall • Recognize • Relate • Reproduce • Select • Show • Spell • State • Tabulate • Tell • Visualize • What • When • Where • Which • Who • Why 	<ul style="list-style-type: none"> • Associate • Classify • Demonstrate • Describe • Discuss • Elaborate • Explain • Express • Extend • Generalize • Group • Illustrate • Indicate • Order • Outline • Paraphrase • Relate • Rephrase • Represent • Rewrite • Show • Site • Summarize • Trace • Translate • Write 	<ul style="list-style-type: none"> • Apply • Build • Calculate • Change • Collect • Complete • Compute • Construct • Determine • Develop • Estimate • Experiment with • Find • Identify • Interview • Make use of • Manipulate • Model • Modify • Operate • Organize • Plan • Prepare • Select • Solve • Transfer • Use • Utilize 	<ul style="list-style-type: none"> • Analyze • Assume • Categorize • Classify • Comment • Compare • Conclude • Connect • Contrast • Correlate • Devise • Devoid • Diagram • Differentiate • Discover • Dissect • Distinguish • Divide • Examine • Focus • Function • Illustrate • Infer • Inference • Inspect • Order • Organize • Separate • Simplify • Survey • Test for • Theme 	<ul style="list-style-type: none"> • Agree • Appraise • Argue • Assess • Award • Conclude • Convince • Criticize • Critique • Decide • Deduct • Defend • Disprove • Editorialize • Evaluate • Grade • Importance • Influence • Interpret • Judge • Justify • Mark • Measure • Opinion • Predict • Priorities • Prove • Rank • Rate • Recommend • Reframe • Score • Select • Support • Value 	<ul style="list-style-type: none"> • Anticipate • Assemble • Build • Change • Combine • Compile • Compose • Construct • Create • Design • Develop • Formulate • Generalize • Hypothesis • Imagine • Improve • Integrate • Invent • Make up • Maximize • Minimize • Modify • Organize • Predict • Prepare • Propose • Reduce

Programme Outcomes (POs)

B.Com (Aided & SF), B.Com (Professional Accounting), B.Com (Banking & Insurance) and B.Com (Capital Markets)

Sl. No.	Graduate Attributes	On completion of the Programme, the student will
PO 1	<i>Knowledge Base</i>	Gain thorough grounding on the foundations of commerce
PO 2	<i>Problem Analysis & Investigation</i>	Acquire practical exposure which would equip the student to face the modern challenges in solving skills in commerce and business.
PO 3	<i>Communication Skills & Design</i>	Ability to communicate, comprehend and write effective reports and design documentation and effectively respond to clear instruction
PO 4	<i>Individual and Team Work</i>	Develop ability to work effectively as a member and leader in teams in multi-disciplinary setting and develop as a successful entrepreneur
PO 5	<i>Professionalism, Ethics and equity</i>	All inclusive outlook of the programme offers a number of value based and job oriented course, and ensures that students are trained into up-to-date with ethics
PO 6	<i>Lifelong learning</i>	Prove proficiency with ability to engage in higher education and to pursue professional courses, post graduate courses and develop passion towards entrepreneurship.

Programme Specific Outcomes (PSOs) with Graduate Attributes

B.Com (Aided & SF), B.Com (Professional Accounting), B.Com (Banking & Insurance) and B.Com (Capital Markets)

Sl. No.	Graduate Attributes	On completion of the Programme, the student will
PSO 1	<i>Knowledge Base</i>	Possess strong foundation on various dimensions of accounting, finance, legal, marketing and taxation with social impact
PSO 2	<i>Problem Analysis & Investigation</i>	Acquire capabilities towards innovation and creativity in problem solving skills in business modeling.
PSO 3	<i>Communication Skills & Design</i>	Develop ability to communicate, comprehend and write effective reports and design documentation and effectively respond to clear instructions
PSO 4	<i>Individual and Team Work</i>	Work effectively as a member and leader in teams in multi-disciplinary setting and develop as a successful entrepreneur
PSO 5	<i>Professionalism, Ethics and equity</i>	Develop and inculcate positive attitude to become a responsible good citizen by applying professional ethics, accountability with greater awareness about culture and value system
PSO 6 B.Com., B.Com (PA)	<i>Lifelong learning</i>	Aspire educational needs in a changing world to pursue professional courses viz., Chartered Accountants(CA), Cost & Management Accountants(CMA), Company Secretary (CS) & other international Professional Courses viz., ACCA(UK), CIMA(UK), CPA(USA) and other post graduate courses and develop a passion towards entrepreneurship.
PSO 6 B.Com (B&I)	<i>Lifelong learning</i>	Uphold and lead to learn a special focus in the functional areas of Banking & Insurance and to facilitate the students to get the Licentiate Certificate in Insurance (inbuilt in curriculum) from Insurance Institute of India (III), Mumbai and to get Diploma in Banking and Finance from Indian Institute of Banking and Finance (IIBF), Mumbai.
PSO 6 B.Com (CM)	<i>Lifelong learning</i>	Uphold and lead to learn a special focus in the functional areas of Capital Market Operations and to facilitate the students to get ten certificates (inbuilt curriculum) and three certificates as, 'Extra Credit' course, outside the curriculum. Pursue professional courses like CFD, CFA and CMD.

Qualification for Admission

Candidates should have passed the Higher Secondary Examination conducted by the Board of Higher Education, Government of Tamilnadu, CBSC & ICSE or any other examination approved by Madurai Kamaraj University as equivalent.

Duration of the Course

The students shall undergo prescribed course of study for the period of three academic years under CBCS semester pattern with outcome based education.

Medium of Instruction: English

System: Choice Based Credit System with Outcome Based Model

Learning Outcome Based Education (LOBE) & Assessment

Students understanding must be built on and assessed for wide range of learning activities, which includes different approaches and are classified along several bases, such as

1. Based on purpose:

- Formative (Internal tests, Assignment, Seminar, Quiz, Documentation, Case lets, ICT based Assignment, Mini Projects administered during the learning process)
- Summative (Evaluation of students learning at the end of instructional unit)

2. Based on Domain knowledge: (Under Graduate Up to K4 Levels)

- Assessment through K1, K2, K3 & K4

Evaluation

Formative (CIA)	: 25 marks
Summative (External)	: 75 marks
Total	: 100 marks

Formative Test (CIA-Continuous Internal Assessment) : 25 Marks

Components	Marks
Test-Scholastic Measurement (Average of two tests) (Conducted for 40 marks and converted into 10 marks)	10
Assignment (CO5) /Class Participation (Non-Scholastic Assessment- Behaviour, values, emotional stability)	5
Quiz/ Documentation/ Case lets/ ICT based Assignment/ Mini Projects (Quantitative & Qualitative Measurement)	5
Attendance (Quantitative Measurement)	5
Total	25

- ✓ Centralised system of Internal Assessment Tests
- ✓ There will be a two internal assessment tests
- ✓ Duration of Internal assessment test will be 2 hours
- ✓ Students shall write retest on the genuine grounds if they are absent in either Test I or Test II with the approval of HoD and the Principal

Question Paper Pattern for Formative Test

Section	Marks
A – Multiple Choice Questions (4x1 mark)	4
B – Short Answer (3x2 marks)	6
C – Either /Or type (2x 5 marks)	10
D – Open Choice type (2/3 *10 Marks)	20
Total	40

Conducted for 30 marks and converted into 10 marks

Formative Test
Distribution of Marks with K Levels CIA I & CIA II

	K Levels	Section A (Multiple Choice Questions)	Section B (Short Answer Questions)	Section C (Either/Or Choice)	Section D (Open Choice)	Total Marks	% of (Marks without choice)	Consolidated %
CIA I	K1	2	2	-	--	4	6.67	67
	K2	2	4	10	20	36	60	
	K3	-	-	10	10	20	33.33	33
	K4	-	-	-	-	-	-	-
	Marks	4	6	20	30	60	100	100
CIA II	K1	2	2	-	--	4	6.67	50
	K2	2	4	10	10	26	43.33	
	K3	-	-	10	10	20	33.33	33
	K4	-	-	-	10	10	16.67	17
	Marks	4	6	20	30	60	100	100

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

CO5 will be allotted for individual Assignment which carries five marks as part of CIA component.

Question Paper Pattern for Summative Examination

Section	Marks
A – Multiple Choice Questions (10x1 mark)	10
B – Short Answer Questions (5 x 2 Marks)	10
C – Either /Or type (5X5marks)	25
D – Open Choice type(3out of 5 X10Marks)	30
Total	75

In respect of external examinations passing minimum is 27 marks for Under Graduate Courses and in total, aggregate of 40 marks.

Summative Exam
Distribution of Marks with K levels

K Levels	Section A (Multiple Choice Questions)	Section B (Short Answer Questions)	Section C (Either/Or Choice)	Section D (Open Choice)	Total Marks Without choice	% of (Marks without choice)	Consolidated %
K1	5	4	10	--	19	15.83	50
K2	5	6	10	20	41	34.17	
K3	-	-	20	20	40	33.33	33
K4	-	-	10	10	20	16.67	17
Marks	10	10	50	50	120	100	100

NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Question Bank

Teaching and evaluation complement each other, hence changes are not only required of the evaluation aspect, but also changes need to be effected both in teaching and evaluation. Question banks thus in an attempt to integrate both teaching and evaluation. Course wise question bank shall be prepared, that makes use of accumulated experience of teachers, which renders effective examining of students and reduces administrative mechanisms for conduct of paper setting process.

The curriculum is revised to suit the changing trends by propagation of ideas ensuring professional growth through innovative method of teaching. The curriculum is strengthened through the latest amendments and revisions as per UGC and TANSCHÉ Norms.

Courses of Study with Credit Distribution

**B.Com (Aided & SF), B.Com (Professional Accounting),
B.Com (Banking & Insurance) and B.Com (Capital Markets)**

Part	Category	No. of Courses	No. of Credits
I	Language (Tamil/Hindi/Sanskrit)	2	2
II	English (Semester I English - 6 hrs Semester IV Soft skills – 6 hrs)	2	6
III	Allied(Semester I Business Economics- 6 hrs Semester II International Economics – 6 hrs Semester III Commercial Law – 5 hrs Semester IV Industrial Law – 5 hrs)	4	14
	Core	21	84
	Elective	4	16
	Skill Based Elective	4	8
IV	Non Major Elective	2	4
Common	Value Education	1	3
	Environmental Studies	1	3
V	Extension Activity	1	1
Total		42	141

THE MADURA COLLEGE (Autonomous)

PG DEPARTMENT OF COMMERCE

Statement showing claim of equivalency for B.Com Special Programmes (B.Com (Professional Accounting), B.Com (Banking & Insurance) & B.Com (Capital Markets))with B.Com as per TANSICHE Norms

Particulars	B.Com	B.Com (Professional Accounting)	B.Com (Banking & Insurance)	B.Com (Capital Markets)
Common Courses – Other than Commerce	10	10	10	10
Commerce Subjects as per TANSICHE (25 Mandatory Papers)	25	23	23	23
Additional Courses offered by Department	9	5	5	5
<u>Courses to be offered as specialized papers</u>				
Courses by National Stock Exchange	--	--	--	6
Courses by Insurance Institute of India	--	--	4	--
Courses by Indian Institute of Banking and Finance	--	--	2	--
Courses for Professional Accounting	--	6	--	--
Total Courses	44	44	44	44
Percentage of Total Courses offered by Department to TANSICHE Mandatory Papers	100%	92%	92%	92%
Mandatory ratio suggested by TANSICHE for getting equivalency	75%	75%	75%	75%

B.Com (Aided & SF)

Course Structure under CBCS & OBE Pattern with effect from the Academic Year 2020-21 Onwards

First Year		First Semester			First Year		Second Semester		
Category	Course Code	Courses	Hours	Credit	Category	Course Code	Courses	Hours	Credit
Part I		Tamil - I /Hindi - I /Sanskrit - I	3	1	Part I		Tamil- II /Hindi- II /Sanskrit - II	3	1
Part II		English I	6	3	Part III- Allied 2	20U2KA2	International Economics	6	4
Part III- Allied 1	20U1KA1	Business Economics	6	4	Major Core 3	20U2KMC3	Financial Accounting - II	6	4
Major Core 1	20U1KMC1	Financial Accounting - I	6	4	Major Core 4	20U2KMC4	Business Mathematics & Statistics	6	4
Major Core 2	20U1KMC2	Business Communication	4	4	Major Core 5	20U2KMC5	Principles of Insurance	6	4
Skill Based Elective 1	20U1KSBE1	Accounting Software	2	2			Environmental & Gender Studies	3	3
		Value Education & Professional Ethics	3	3			Extension	--	1
		Total	30	21			Total	30	21
Second Year		Third Semester			Second Year		Fourth Semester		
Part III- Allied 3	20U3KA3	Commercial Law	5	3	Part II English		Soft Skills	6	3
Major Core 6	20U3KMC6	Principles of Marketing	4	4	Part III- Allied 4	20U4KA4	Industrial Law	5	3
Major Core 7	20U3KMC7	Partnership Accounts	5	4	Major Core 11	20U4KMC11	Special Accounts	5	4
Major Core 8	20U3KMC8	Cost Accounting	5	4	Major Core 12	20U4KMC12	Financial Management	5	4
Major Core 9	20U3KMC9	Company Law	5	4	Major Core 13	20U4KMC13	Banking Theory Law & Practice	5	4
Major Core 10	20U3KMC10	Computer Application in Business	4	4	Skill Based Elective 2	20U4KSBE2	Elements of E-Commerce	2	2

Non Major Elective 1	20U3KNME1	Basics of Accounting	2	2	Non Major Elective 2	20U4KNME2	Marketing and Salesmanship	2	2
		Total	30	25			Total	30	22
Third Year		Fifth Semester			Third Year		Sixth Semester		
Major Core 14	20U5KMC14	Corporate Accounting	5	4	Major Core 18	20U6KMC18	Management Accounting	5	4
Major Core 15	20U5KMC15	Elements of Operations Research	5	4	Major Core 19	20U6KMC19	Investment & Security Analysis	5	4
Major Core 16	20U5KMC16	Financial Markets & Services	5	4	Major Core 20	20U6KMC20	Income Tax Law & Practice - II	5	4
Major Core 17	20U5KMC17	Income Tax Law & Practice - I	5	4	Major Core 21	20U6KMC21	Auditing	5	4
Major Elective 1	20U5KME1	Major Elective Theory	4	4	Major Elective 3	20U6KME3	Major Elective Theory	4	4
Major Elective 2	20U5KME2	Major Elective Theory	4	4	Major Elective 4	20U6KME4	Major Elective Theory	4	4
Skill Based Elective 3	20U5KSBE3	Business Valuation	2	2	Skill Based Elective 4	20U6KSBE4	Logistics & Supply Chain Management	2	2
		Total	30	26			Total	30	26

Allotment of Hours Tamil (3+3) 6 + English (6+6) 12 +VE& EVS(3+3) 6+ Allied (6+6+6+5) 22+MC (20x5; 1x6)106+ME (5+3+5+3) 16+ SBE (4x2) 8+ NME(2+2) 4=180 Hrs

Total No. of Courses (7+7+7+7+7+7) = 42 Courses Total Credits = 21+21+25+22+26+26 =141

Major Elective Courses: 1. Principles of Management, 2. Business Environment, 3. Indirect Taxation, 4. Entrepreneurship Development & Start-ups, 5. Human Resource Management, 6. Customer Relationship Management, 7. International Taxation, 8.Business Ethics

B.Com (Professional Accounting)
Course Structure under CBCS & OBE Pattern with effect from the Academic Year 2020-21 Onwards

First Year	First Semester				First Year	Second Semester			
Category	Course Code	Courses	Hours	Credit	Category	Course Code	Courses	Hours	Credit
Part I		Tamil - I /Hindi - I /Sanskrit - I	3	1	Part I		Tamil- II /Hindi- II /Sanskrit - II	3	1
Part II		English I	6	3	Part III- Allied 2	20U2KA2	International Economics	6	4
Part III- Allied 1	20U1KA1	Business Economics	6	4	Major Core 3	20U2KMC3	Financial Accounting - II	6	4
Major Core 1	20U1KMC1	Financial Accounting - I	6	4	Major Core 4	20U2KMC4	Business Mathematics & Statistics	6	4
Major Core 2	20U1KMC2	Business Communication	4	4	Major Core 5	20U2KMC5	Principles of Insurance	6	4
Skill Based Elective 1	20U1KSBE1	Accounting Software	2	2			Environmental & Gender Studies	3	3
		Value Education & Professional Ethics	3	3			Extension	--	1
		Total	30	21			Total	30	21
Second Year	Third Semester				Second Year	Fourth Semester			
Part III- Allied 4	20U3KA4	Commercial Law	5	3	Part II	20U4K	Soft Skills	6	3
Major Core 6	20U3KMC6	Principle of Marketing	4	4	Part III- Allied 5	20U4KA5	Industrial Law	5	3
Major Core 7	20U3KMC7	Partnership Accounts	5	4	Major Core 11	20U4KMC11	Special Accounts	5	4
Major Core 8	20U3KMC8	Cost Accounting	5	4	Major Core 12	20U4KMC12	Financial Management	5	4
Major Core 9	20U3KMC9	Company Law	5	4	Major Core 13	20U4KMC13	Banking Theory Law & Practice	5	4
Major	20U3AMC10	Advanced Excel Modelling	4	4	Skill	20U4ASBE2	Project Management	2	2

Core10					Based Elective 2				
Non Major Elective 1		Non Major Elective Paper	2	2	Non Major Elective 2		Non Major Elective Paper	2	2
		Total	30	25			Total	30	22
Third Year		Fifth Semester			Third Year		Sixth Semester		
Major Core 14	20U5KMC14	Corporate Accounting	5	4	Major Core 18	20U6KMC18	Management Accounting	5	4
Major Core 15	20U5KMC15	Elements of Operations Research	5	4	Major Core 19	20U6KMC19	Investment & Security Analysis	5	4
Major Core 16	20U5KMC16	Financial Markets & Services	5	4	Major Core 20	20U6KMC20	Income Tax Law & Practice - II	5	4
Major Core 17	20U5KMC17	Income Tax Law & Practice - I	5	4	Major Core 21	20U6KMC21	Auditing	5	4
Major Elective 1	20U5KME1	Major Elective Theory	4	4	Major Elective 3	20U6KME3	Major Elective Theory	4	4
Major Elective 2	20U5AME2	Major Elective Theory	4	4	Major Elective 4	20U6AME4	Major Elective Theory	4	4
Skill Based Elective 3	20U5ASBE3	Stock and Commodity Operations	2	2	Skill Based Elective 4	20U6ASBE4	E- Filing	2	2
		Total	30	26			Total	30	26

Allotment of Hours Tamil (3+3) 6 + English (6+6) 12 +VE& EVS(3+3) 6+ Allied (6+6+6+5) 22+MC (20x5; 1x6)106+ME (5+3+5+3) 16+ SBE (4x2) 8+ NME(2+2) 4=180 Hrs

Total No. of Courses (7+7+7+7+7) = 42 Courses Total Credits = 21+21+25+22+26+26 =141

Major Elective Courses: 1. Principles of Management, 2. RDBMS, 3. Indirect Taxation, 4. Accounting Standards, 5. Human Resource Management, 6. Enterprise Resource Planning, 7. International Taxation, 8. Information System Audit

B.Com (Banking & Insurance)

Course Structure under CBCS & OBE Pattern with effect from the Academic Year 2020-21 Onwards

First Year	First Semester				First Year	Second Semester			
Category	Course Code	Courses	Hours	Credit	Category	Course Code	Courses	Hours	Credit
Part I		Tamil - I /Hindi - I /Sanskrit - I	3	1	Part I		Tamil- II /Hindi- II /Sanskrit - II	3	1
Part II		English I	6	3	Part III- Allied 2	20U2KA2	International Economics	6	4
Part III- Allied 1	20U1KA1	Business Economics	6	4	Major Core 3	20U2KMC3	Financial Accounting - II	6	4
Major Core 1	20U1KMC1	Financial Accounting - I	6	4	Major Core 4	20U2KMC4	Business Mathematics & Statistics	6	4
Major Core 2	20U1KMC2	Business Communication	4	4	Major Core 5	20U2KMC5	Principles of Insurance	6	4
Skill Based Elective 1	20U1KSBE1	Accounting Software	2	2			Environmental & Gender Studies	3	3
		Value Education & Professional Ethics	3	3			Extension	--	1
		Total	30	21			Total	30	21
Second Year	Third Semester				Second Year	Fourth Semester			
Part III- Allied 4	20U3IA4	Banking and Allied Law - I	5	3	Part II		Soft Skills	6	3
Major Core 6	20U3KMC6	Principle of Marketing	4	4	Part III- Allied 5	20U4IA5	Banking and Allied Law - II	5	3
Major Core 7	20U3KMC7	Partnership Accounts	5	4	Major Core 11	20U4KMC11	Special Accounts	5	4
Major Core 8	20U3KMC8	Cost Accounting	5	4	Major Core 12	20U4KMC12	Financial Management	5	4
Major Core 9	20U3KMC9	Company Law	5	4	Major Core 13	20U4KMC13	Banking Theory Law & Practice	5	4
Major Core 10	20U3IMC10	Regulation of Insurance Business	4	4	Skill Based Elective 2	20U4ASBE2	Project Management	2	2

Non Major Elective 1		Non Major Elective	2	2	Non Major Elective 2		Non Major Elective	2	2
		Total	30	25			Total	30	22
Third Year		Fifth Semester			Third Year		Sixth Semester		
Major Core 14	20U5KMC14	Corporate Accounting	5	4	Major Core 18	20U6KMC18	Management Accounting	5	4
Major Core 15	20U5KMC15	Elements of Operations Research	5	4	Major Core 19	20U6KMC19	Investment & Security Analysis	5	4
Major Core 16	20U5KMC16	Financial Markets & Services	5	4	Major Core 20	20U6KMC20	Income Tax Law & Practice - II	5	4
Major Core 17	20U5KMC17	Income Tax Law & Practice - I	5	4	Major Core 21	20U6IMC21	Auditing of Banking & Insurance Companies	5	4
Major Elective 1	20U5KME1	Major Elective Theory	4	4	Major Elective 3	20U6KME3	Major Elective Theory	4	4
Major Elective 2	20U5KME2	Major Elective Theory	4	4	Major Elective 4	20U6KME4	Major Elective Theory	4	4
Skill Based Elective 3	20U5KSBE3	Business Valuation	2	2	Skill Based Elective 4	20U6KSBE4	Logistics & Supply Chain Management	2	2
		Total	30	26			Total	30	26

Allotment of Hours Tamil (3+3) 6 + English (6+6) 12 +VE& EVS(3+3) 6+ Allied (6+6+6+5) 22+MC (20x5; 1x6)106+ME (5+3+5+3) 16+ SBE (4x2) 8+ NME(2+2) 4=180 Hrs

Total No. of Courses (7+7+7+7+7) = 42 Courses Total Credits = 21+21+25+22+26+26 =141

Major Elective Courses: 1. Principles of Management, 2. Practice of Life Insurance, 3. Indirect Taxation, 4. Practice of General Insurance, 5. Human Resource Management, 6. Customer Relationship Management, 7. International Taxation, 8.Business Ethics

B.Com (Capital Markets)

Course Structure under CBCS & OBE Pattern with effect from the Academic Year 2020-21 Onwards

First Year		First Semester			First Year		Second Semester		
Category	Course Code	Courses	Hours	Credit	Category	Course Code	Courses	Hours	Credit
Part I		Tamil - I /Hindi - I /Sanskrit - I	3	1	Part I		Tamil- II /Hindi- II /Sanskrit - II	3	1
Part II		English I	6	3	Part III- Allied 2	20U2KA2	International Economics	6	4
Part III-Allied 1	20U1KA1	Business Economics	6	4	Major Core 3	20U2KMC3	Financial Accounting - II	6	4
Major Core 1	20U1KMC1	Financial Accounting - I	6	4	Major Core 4	20U2KMC4	Business Mathematics & Statistics	6	4
Major Core 2	20U1KMC2	Business Communication	4	4	Major Core 5	20U2KMC5	Principles of Insurance	6	4
Skill Based Elective 1	20U1KSBE1	Accounting Software	2	2			Environmental & Gender Studies	3	3
		Value Education & Professional Ethics	3	3			Extension	--	1
		Total	30	21			Total	30	21
Second Year		Third Semester			Second Year		Fourth Semester		
Part III-Allied 4	20U3KA4	Commercial Law	5	3	Part II		Soft Skills	6	3
Major Core 6	20U3KMC6	Principle of Marketing	4	4	Part III- Allied 5	20U4XAT5	BackOffice, Depository Operations, Clearing, Settlement & Risk Management	5	3
Major Core 7	20U3KMC7	Partnership Accounts	5	4	Major Core 11	20U4KMC11	Special Accounts	5	4
Major Core 8	20U3KMC8	Cost Accounting	5	4	Major Core 12	20U4KMC12	Financial Management	5	4
Major Core 9	20U3KMC9	Company Law	5	4	Major Core	20U4KMC13	Banking Theory Law & Practice	5	4

					13				
Major Core10	20U3XMC10	Derivative Markets, Foreign Exchange and Currency Market	4	4	Skill Based Elective 2	20U4XSBE2	Capital Market Operations	2	2
Non Major Elective 1		Non Major Elective	2	2	Non Major Elective 2	20U4KNME2	Non Major Elective	2	2
		Total	30	25			Total	30	22
Third Year	Fifth Semester				Third Year	Sixth Semester			
Major Core 14	20U5KMC14	Corporate Accounting	5	4	Major Core 18	20U6KMC18	Management Accounting	5	4
Major Core 15	20U5KMC15	Elements of Operations Research	5	4	Major Core 19	20U6KMC19	Investment & Security Analysis	5	4
Major Core 16	20U5KMC16	Financial Markets & Services	5	4	Major Core 20	20U6KMC20	Income Tax Law & Practice - II	5	4
Major Core 17	20U5KMC17	Income Tax Law & Practice - I	5	4	Major Core 21	20U6KMC21	Auditing	5	4
Major Elective 1	20U5KME1	Major Elective Theory	4	4	Major Elective 3	20U6KME3	Major Elective Theory	4	4
Major Elective 2	20U5KME2	Major Elective Theory	4	4	Major Elective 4	20U6KME4	Major Elective Theory	4	4
Skill Based Elective 3	20U5XSBE3	Mutual Fund and Commodity Market Operations	2	2	Skill Based Elective 4	20U6KSBE4	Logistics & Supply Chain Management	2	2
		Total	30	26			Total	30	26

Allotment of Hours Tamil (3+3) 6 + English (6+6) 12 +VE& EVS(3+3) 6+ Allied (6+6+6+5) 22+MC (20x5; 1x6)106+ME (5+3+5+3) 16+ SBE (4x2) 8+ NME(2+2) 4=180 Hrs

Total No. of Courses (7+7+7+7+7+7) = 42 Courses Total Credits = 21+21+25+22+26+26 =141

Major Elective Courses: 1. Principles of Management, 2. Regulatory Framework, Taxation & Anti Money Laundering, 3. Indirect Taxation, 4. Financial Planning and Wealth Management, 5. Human Resource Management, 6. Customer Relationship Management, 7. International Taxation, 8.Business Ethics

B.Com (Capital Markets)**13 Certificates from NSE****Distribution of NSE Courses in the OBE curriculum from 2020-21 onwards**

S.No	Name of Subject	No. of Certificates	No. of Certificates in OBE curriculum NISM- 3 NCFM- 7	No. of Certificates as Extra 3 Credits NCFM-3
1	Introduction to Financial Markets	1	-	1 (During the Second Semester)
2	Derivative Market (NISM)	1	1 (III Semester)	--
3	Foreign Exchange and Currency Markets (NISM)	1	1 (III Semester)	
4	Capital Market Operations	1	1 (IV Semester)	--
5	Back Office, Depository Operations and clearing and Settlement and Risk Management.	3	3 (IV Semester)	--
6	Mutual Fund (NISM) and Commodity Market	2	2 (V Semester)	--
7	Regulatory Framework, Taxation & Anti Money Laundering	1	1 (V Semester)	--
8	Fundamental Analysis and Technical Analysis	2	--	2 (During the Fourth Semester)
9	Financial Planning and Wealth Management	1	1 (VI Semester)	--
	Total	13	10	3

NISM: National Institute of Securities Market**NCFM: NSE's Certification in Financial Markets**

**I Year B.Com
First Semester**

Common Course for I B.Com/ I B.Com (Professional Accounting)/
I B.Com(Banking and Insurance)/ I B.Com(Capital Markets)

**Course Structure under CBCS & OBE Pattern with effect from the
Academic Year 2020-21 Onwards**

Category	Course Code	Courses	Hours	Credit
Part I		Tamil - I /Hindi - I /Sanskrit - I	3	1
Part II		English I	6	3
Part III-Allied 1	20U1KA1	Business Economics	6	4
Major Core 1	20U1KMC1	Financial Accounting - I	6	4
Major Core 2	20U1KMC2	Business Communication	4	4
Skill Based Elective 1	20U1KSBE1	Accounting Software	2	2
		Value Education & Professional Ethics	3	3
Total			30	21

Semester wise Mapping of Course with Programme Outcomes (POs)

	Programme Outcomes (POs)	C1-MC 1 Financial Accounting-I	C2-MC 2 Business Communication	C3- SBE1 Accounting Software
G R A D U A T E A T T R I	PO 1 (Knowledge Base)	3	3	3
	PO 2 (Problem Analysis & Investigation)	3	1	3
	PO 3 (Communication Skills & Design)	3	3	1
	PO 4 (Individual and Team Work)	2	3	2
	PO 5 (Professionalism, Ethics and equity)	2	2	2
	PO 6 (Life Long Learning)	3	3	3

3- Advanced Application 2- Intermediate Development 1-Introductory Level

Semester wise Mapping of Course with Programme Specific Outcomes (PSOs)

	Programme Specific Outcomes (PSOs)	C1-MC 1 Financial Accounting-I	C2-MC 2 Business Communication	C3- SBE1 Accounting Software
G R A D U A T E A T T R I B U T E S	PSO 1 <i>(Knowledge Base)</i>	3	3	3
	PSO 2 <i>(Problem Analysis & Investigation)</i>	3	1	3
	PSO 3 <i>(Communication Skills & Design)</i>	3	3	1
	PSO 4 <i>(Individual and Team Work)</i>	2	3	2
	PSO 5 <i>(Professionalism, Ethics and equity)</i>	2	2	2
	PSO 6 <i>(Life Long Learning)</i>	3	3	3

3- Advanced Application

2- Intermediate Development

1-Introductory Level

DEPARTMENT OF ECONOMICS				CLASS: I B.Com (General, PA, B&I, CM)				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
I	Allied 1		<i>Business Economics*</i>	4	6	25	75	100

Course Objectives

- To acquaint knowledge on managerial economics and apply appropriate principles in business decision
- To identify and trace various utilities and to infer the law of diminishing marginal utility
- To demonstrate the Law of Demand, Elasticity of Demand and Forecasting of Demand
- To familiarize the concept of factors of production and make a solid foundation on ISO Quant and ISO Cost lines
- To sensitize the concept of pricing policies and strategies in different business situations

Unit	Course Contents	Hours
I	Nature, Scope and Methods of Managerial Economics Meaning - Definition - Nature and scope of managerial economics - Methods of managerial economics - Role and functions of managerial economist – Managerial economics with other disciplines - Basic concepts in managerial economics.	18
II	Cardinal Utility Analysis Introduction - Concepts of Utility - Total, Marginal Utility - Law of Diminishing Marginal Utility - Law of Equi-Marginal Utility - Consumer's surplus.	18
III	Demand and Demand Forecasting Demand – Meaning – Definition - Law of Demand - Demand determinants- Elasticity of Demand - Types of Elasticity of Demand - Degrees of Price Elasticity of Demand - Measurement of elasticity of Demand - Meaning of demand forecasting - Methods of demand forecasting for established products.	18
IV	Production, Costs and Revenue Analysis Introduction - Features of factors of production - Law of returns (Increasing, Constant and Diminishing) – Isoquant - Iso-cost line- TC – VC – FC – AC – MC – AR – MR - Factors of Production.	18
V	Pricing Policies and Strategies Pricing - Pricing policy - Formulation of pricing policy - Objectives of pricing policy - Factors involved pricing policy - Pricing strategies - Skimming pricing and Penetration pricing - Pricing over the life cycle of a product - Cyclical pricing - Transfer pricing - Differential pricing - Full cost pricing.	18

Books for Studys

1. R. Cauvery, U.K. SudhaNayak, M. Girija and R. Meenakshi “*Managerial Economics*”, 2002, S.Chand& Co, New Delhi.
2. V.G. Mankar, “*Business Economics*”, 1999, Marcmillan India Ltd, New Delhi.

Books for Reference

1. M.L. Jhingan and J. K Stephen, “*Managerial Economics*”, 2012, Vrinda Publications (P) Ltd., Delhi.
2. Varshney and Maheswary, “*Managerial Economics*”, 2004, Sultan Chand & Co., Delhi.
3. Managerial Economics, D. M. Mithani, “*Managerial Economics*”, 2006, Himalaya Publishing House, Delhi.
4. Branton, Noel and James M. Livingstone, “*Managerial Economics in Practice*”, 2001, Oxford University Press, Delhi.

Web Resources

www.edushareonline.in, www.swlearning.com

Pedagogy: Chalk & Talk, Assignments, PPTs, Caselets

***Syllabus for the course on ‘Business Economics’ is being passed by the Board of Studies of Department of Economics.**

Course Learning Outcomes:

CLOs	On completion of the course, the students should be able to	K- Level
CLO1	Describe the concepts of managerial economics and apply appropriate principles in business decision	Up to K2
CLO2	Group various utilities and Apply Diminishing Marginal Utility at various situations	Up to K3
CLO3	Make use of Law of Demand, Elasticity of Demand and Forecasting of Demand in various market conditions	Up to K3
CLO4	Examine various factors of production and Law of Returns to production	Up to K4
CLO5	Identify appropriate policies, methods and strategies	Up to K3

Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (POs)

Course Learning Outcomes (CLOs)	Programme Outcomes (with Graduate Attributes)					
	PO 1 (Knowledge Base)	PO 2 (Problem Analysis & Investigation)	PO 3 (Communication Skills & Design)	PO 4 (Individual and Team Work)	PO 5 (Professionalism, Ethics and equity)	PO 6 (Life Long Learning)
CLO 1	3	1	3	2	2	3
CLO 2	3	3	2	1	2	3
CLO 3	3	2	3	2	2	3
CLO 4	2	1	3	3	3	2
CLO 5	3	2	3	2	2	3

3- Advanced Application

2- Intermediate Development

1 - Introductory

Mapping of Course Learning Outcomes (CLOs) with Programme Specific Outcomes (PSOs)

Course Learning Outcomes (CLOs)	Programme Specific Outcomes (with Graduate Attributes)					
	PSO 1 (Knowledge Base)	PSO 2 (Problem Analysis & Investigation)	PSO 3 (Communication Skills & Design)	PSO 4 (Individual and Team Work)	PSO 5 (Professionalism, Ethics and equity)	PSO 6 (Life Long Learning)
CLO 1	3	1	3	2	2	3
CLO 2	3	3	2	1	2	3
CLO 3	3	2	3	2	2	3
CLO 4	2	1	3	3	3	2
CLO 5	3	2	3	2	2	3

3- Advanced Application

2- Intermediate Development

1 - Introductory

**Learning Outcome Based Education (LOBE) & Assessment
Formative Examination - Blue Print**

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

Internal	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
CIA I	CLO 1	Up to K 2	2	K1& K2	1	K1	2 (K2&K2)	1(K2)
	CLO 2	Up to K3	2	K1& K2	2	K2	2 (K3&K3)	2(K2 & K3)
CIA II	CLO 3	Up to K 3	2	K1& K2	1	K2	2 (K2&K2)	1(K2)
	CLO 4	Up to K 4	2	K1& K2	2	K2	2 (K3&K3)	2(K3 &K4)
Question Pattern CIA I & II		No. of Questions to be asked	4		3		4	3
		No. of Questions to be answered	4		3		2	2
		Marks for each question	1		2		5	10
		Total Marks for each section	4		6		10	20

Distribution of Marks with K Level CIA I & CIA II

	K Levels	Section A (Multiple Choice Questions)	Section B (Short Answer Questions)	Section C (Either/Or Choice)	Section D (Open Choice)	Total Marks	% of (Marks without choice)	Consolidated %
CIA I	K1	2	2	-	--	4	6.67	67
	K2	2	4	10	20	36	60	
	K3	-	-	10	10	20	33.33	33
	K4	-	-	-	-	-	-	-
	Marks	4	6	20	30	60	100	100
CIA II	K1	2	2	-	--	4	6.67	50
	K2	2	4	10	10	26	43.33	
	K3	-	-	10	10	20	33.33	33
	K4	-	-	-	10	10	16.67	17
	Marks	4	6	20	30	60	100	100

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

CLO5 will be allotted for individual Assignment which carries five marks as part of CIA component.

Learning Outcome Based Education & Assessment (LOBE)

Summative Examination- Blue Print

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

S. No.	CLOs	K- Level	Section A				Section B (Either/or Choice)	Section C (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO 1	Up to K 2	2	K1&K2	1	K1	2 (K1&K1)	1(K2)
2	CLO 2	Up to K 3	2	K1&K2	1	K1	2 (K3&K3)	1(K3)
3	CLO 3	Up to K 3	2	K1&K2	1	K2	2 (K3&K3)	1(K3)
4	CLO 4	Up to K 4	2	K1&K2	1	K2	2 (K4&K4)	1(K4)
5	CLO 5	Up to K 3	2	K1&K2	1	K2	2 (K2&K2)	1(K3)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Marks with K Level

K Levels	Section A (Multiple Choice Questions)	Section B (Short Answer Questions)	Section C (Either/Or Choice)	Section D (Open Choice)	Total Marks	% of (Marks without choice)	Consolidated %
K1	5	4	10	-	19	15.83	42
K2	5	6	10	10	31	25.83	
K3	-	-	20	30	50	41.67	42
K4	-	-	10	10	20	16.67	16

NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.

Summative Examinations - Question Paper – Format

Course Title : *Business Economics*

Course Code :

Time : 3 hours

Maximum Marks : 75

Section A (Multiple Choice Questions)

Answer All Questions

(10x1=10 marks)

Q.No.	CLO	K Level	Questions
1	CLO1	K1	
2	CLO1	K2	
3	CLO2	K1	
4	CLO2	K2	
5	CLO3	K1	
6	CLO3	K2	
7	CLO4	K1	
8	CLO4	K2	
9	CLO5	K1	
10	CLO5	K2	

Section B (Short Answers)

Answer All Questions

(5 x 2 = 10 marks)

Q.No.	CLO	K Level	Questions
11	CLO1	K1	
12	CLO2	K1	
13	CLO3	K2	
14	CLO4	K2	
15	CLO5	K2	

Section C (Either/Or Type)

Answer All Questions

(5 x 5 = 25 marks)

Q.No.	CLO	K Level	Questions
16) a	CLO1	K1	
16) b	CLO1	K1	
17) a	CLO2	K3	
17) b	CLO2	K3	
18) a	CLO3	K3	
18) b	CLO3	K3	
19) a	CLO4	K4	
19) b	CLO4	K4	
20) a	CLO5	K2	
20) b	CLO5	K2	

Section D (Open Choice)

Answer Any Three questions

(3x10=30 marks)

Q.No.	CLO	K Level	Questions
21	CLO1	K2	
22	CLO2	K3	
23	CLO3	K3	
24	CLO4	K4	
25	CLO5	K3	

NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.

LESSON PLAN

Unit	Course Contents	Hours	Mode
I	Nature, Scope and Methods of Managerial Economics Meaning - Definition - Nature and scope of managerial economics	6	Chalk & Talk, PPT
	Methods of managerial economics Role and functions of managerial economist –Managerial economics with other disciplines	6	
	Basic concepts in managerial economics.	6	
II	Cardinal Utility Analysis Introduction - Concepts of Utility -Total, Marginal Utility	7	Chalk & Talk, PPT
	Law of Diminishing Marginal Utility - Law of Equi-Marginal Utility	8	
	Consumer's surplus.	3	
III	Demand and Demand Forecasting Demand – Meaning – Definition - Law of Demand – Demand determinants	6	Chalk & Talk, PPT, Assignment
	Elasticity of Demand - Types of Elasticity of Demand - Degrees of Price Elasticity of Demand - Measurement of elasticity of Demand	6	
	Meaning of demand forecasting - Methods of demand forecasting for established products.	6	
IV	Production, Costs and Revenue Analysis Introduction - Features of factors of production - Law of returns (Increasing, Constant and Diminishing) –	8	Chalk & Talk, PPT,
	Isoquant - Iso-cost line- TC – VC – FC – AC – MC – AR – MR	6	
	Factors of Production.	4	
V	Pricing Policies and Strategies Pricing - Pricing policy - Formulation of pricing policy - Objectives of pricing policy - Factors involved pricing policy	8	Chalk & Talk, PPT, Assignment, Case lets
	Pricing strategies - Skimming pricing and Penetration pricing – Pricing over the life cycle of a product - Cyclical pricing -	6	
	Transfer pricing– Differential pricing - Full cost pricing.	4	

Name of the Course Designer: Dr.C.S.Theenadayalan, Head& Associate Professor,
Department of Economics& Centre for Research in Economics

DEPARTMENT OF COMMERCE				CLASS: I B.Com (General, PA, B&I, CM)				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
I	Major Core - 1	20U1KMC1	Financial Accounting – I	4	6	25	75	100

Course Objectives

- To know the basic concepts and convention of accounting, accounting system and Accounting Standards
- To classify the various kinds of errors and their rectification and to prepare Bank Reconciliation Statement
- To prepare and present final accounts of Sole Proprietor concern of Manufacturing and Trading Business independently
- To calculate depreciation under various methods and to prepare accounting for depreciation under various acts
- To gain working knowledge on accounting for insurance claims, to determine average due date and to prepare account current

Unit	Course Contents	Hours
I	Definition – Accounting Principles, Concepts and Conventions – Rules – Accounting Equation – Double Entry System - Advantages of Double entry system - Basic knowledge of Accounting Standards and Ind AS.	18
II	Bank Reconciliation Statement – Trial Balance – Rectification of errors – Suspense Account – Effect of errors on profit.	18
III	Preparation of Manufacturing, Trading and Profit and Loss Account and Balance Sheet – Adjustment Entries – Closing entries.	18
IV	Meaning – Causes – Fixed installment method, Written down value method, Change in the providing depreciation with Prospective and Retrospective Effect, Annuity method, Sinking fund method, Insurance policy method – Depreciation as per Companies Act (useful life method) and Income-Tax Act.	18
V	Accounting for Insurance claims- Loss of Stock – Loss of Profit (Simple Problems Only). Average Due Date and Account Current.	18

The Questions should be asked in the ratio of 80% Problems and 20 % for theory

Books for Study

1. S.P. Jain & K.L Narang, “*Advanced Accountancy*” Vol-I, Nineteenth Edition, 2015, Kalyani Publishers, Mumbai.

Books for Reference

1. R.L. Gupta & M. Radhaswamy, “*Advanced Accountancy*”Vol-I, 2015, Sultan Chand & Sons, New Delhi.
2. M.A. Arulanandam& K.S. Raman, “*Advanced Accountancy*”Vol-I, Sixth Edition, 2015, Himalaya Publishing House, Mumbai.
3. S. N. Maheshwari&Suneel K Maheshwari, “*Financial Accounting*”, Fifth Edition, 2012, Vikas Publishing House.
4. R.S.N. Pillai, Bagavathi& S. Uma, “*Fundamentals of Advanced Accountancy*”, Third Edition, 2015, S. Chand, New Delhi.
5. SP. Iyengar, “*Advanced Accountancy*” Vol-I, Fourth Edition, 2004.Sultan Chand & Sons, New Delhi.

Web Resources

1. www.quora.com
2. www.accountingpath.com
3. www.tweakyourbiz.com

Pedagogy: Chalk & Talk, Assignments, Exercises, PPT, Assignment

Course Learning Outcomes

CLOs	The students will be able to	K- Level
CLO 1	Describe the foundations in accounting concepts and conventions, relate with various accounting system and list out various (selective) Accounting Standards and Ind AS	Up to K2
CLO 2	Illustrate accounting skills through Subsidiary Books with Trial Balance, identifying various kinds of errors and their rectification and prepare to Bank Reconciliation Statement	Up to K3
CLO 3	Prepare final accounts of sole trader concern of manufacturing & trading Businesses.	Up to K4
CLO 4	Compute depreciation under various methods, analyses and change in method of depreciation with retrospective and prospective effect and distinguish the various methods of depreciation under Companies Act and Income Tax Act	Up to K4
CLO 5	Calculate the Average Due Date, prepare Account Current with various methods and determine insurance claims under stock and loss of profit policy	Up to K3

Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (POs)

Course Learning Outcomes (CLOs)	Programme Specific Outcomes (with Graduate Attributes)					
	PO 1 (Knowledge Base)	PO 2 (Problem Analysis & Investigation)	PO 3 (Communication Skills & Design)	PO 4 (Individual and Team Work)	PO 5 (Professionalism, Ethics and equity)	PO 6 (Life Long Learning)
CLO 1	3	3	3	2	2	3
CLO 2	3	1	3	2	2	3
CLO 3	2	3	3	3	2	3
CLO 4	2	2	2	2	2	2
CLO 5	3	3	1	2	2	3

3- Advanced Application

2- Intermediate Development

1 - Introductory

Mapping of Course Learning Outcomes (CLOs) with Programme Specific Outcomes (PSOs)

Course Learning Outcomes (CLOs)	Programme Specific Outcomes (with Graduate Attributes)					
	PSO 1 (Knowledge Base)	PSO 2 (Problem Analysis & Investigation)	PSO 3 (Communication Skills & Design)	PSO 4 (Individual and Team Work)	PSO 5 (Professionalism, Ethics and equity)	PSO 6 (Life Long Learning)
CLO 1	3	3	3	2	2	3
CLO 2	3	1	3	2	2	3
CLO 3	2	3	3	3	2	3
CLO 4	2	2	2	2	2	2
CLO 5	3	3	1	2	2	3

3- Advanced Application

2- Intermediate Development

1 - Introductory

Learning Outcome Based Education (LOBE) & Assessment

Formative Examination - Blue Print

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

Internal	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
CIA I	CLO 1	Up to K 2	2	K1& K2	1	K1	2 (K2&K2)	1(K2)
	CLO 2	Up to K 3	2	K1& K2	2	K2	2 (K3&K3)	2(K2 & K3)
CIA II	CLO 3	Up to K 4	2	K1& K2	1	K2	2 (K2&K2)	1(K2)
	CLO 4	Up to K 4	2	K1& K2	2	K2	2 (K3&K3)	2(K3 &K4)
Question Pattern CIA I & II		No. of Questions to be asked	4		3		4	3
		No. of Questions to be answered	4		3		2	2
		Marks for each question	1		2		5	10
		Total Marks for each section	4		6		10	20

Distribution of Marks with K Level CIA I & CIA II

	K Levels	Section A (Multiple Choice Questions)	Section B (Short Answer Questions)	Section C (Either/Or Choice)	Section D (Open Choice)	Total Marks	% of (Marks without choice)	CLOnsolidated %
CIA I	K1	2	2	-	--	4	6.67	67
	K2	2	4	10	20	36	60	
	K3	-	-	10	10	20	33.33	33
	K4	-	-	-	-	-	-	-
	Marks	4	6	20	30	60	100	100
CIA II	K1	2	2	-	--	4	6.67	50
	K2	2	4	10	10	26	43.33	
	K3	-	-	10	10	20	33.33	33
	K4	-	-	-	10	10	16.67	17
	Marks	4	6	20	30	60	100	100

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

CLO5 will be allotted for individual Assignment which carries five marks as part of CIA component.

Learning Outcome Based Education (LOBE) & Assessment

Summative Examination-Blue Print

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

S.No	CLOs	K- Level	Section A		Section B		Section B (Either/or Choice)	Section C (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K-Level	No. of Questions	K- Level		
1	CLO 1	Up to K 2	2	K1&K2	1	K1	2 (K1&K1)	1(K2)
2	CLO 2	Up to K 3	2	K1&K2	1	K1	2 (K3&K3)	1(K3)
3	CLO 3	Up to K 4	2	K1&K2	1	K2	2 (K3&K3)	1(K4)
4	CLO 4	Up to K 4	2	K1&K2	1	K2	2 (K4&K4)	1(K3)
5	CLO 5	Up to K 3	2	K1&K2	1	K2	2 (K2&K2)	1(K3)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

(Figures in parenthesis denotes, questions should be asked with the given K level)

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Marks with K Level

K Levels	Section A (Multiple Choice Questions)	Section B (Short Answer Questions)	Section C (Either/Or Choice)	Section D (Open Choice)	Total Marks	% of (Marks without choice)	Consolidated %
K1	5	6	10	-	19	15.83	42
K2	5	4	10	10	31	25.83	
K3	-	-	20	30	50	41.67	42
K4	-	-	10	10	20	16.67	16
Marks	10	10	50	50	120	100	100

NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.

Summative Examinations - Question Paper – Format**Course Title: Financial Accounting – I****Course Code: 20U1KMC1****Time: 3 hours****Maximum Marks: 75****Section A (Multiple Choice Questions)****Answer All Questions****(10x1=10 marks)**

Q.No	CLO	K Level	Questions
1	CLO1	K1	
2	CLO1	K2	
3	CLO2	K1	
4	CLO2	K2	
5	CLO3	K1	
6	CLO3	K2	
7	CLO4	K1	
8	CLO4	K2	
9	CLO5	K1	
10	CLO5	K2	

Section B (Short Answers)**Answer All Questions****(5 x 2 = 10 marks)**

Q.No	CLO	K Level	Questions
11	CLO1	K1	
12	CLO2	K1	
13	CLO3	K2	
14	CLO4	K2	
15	CLO5	K2	

Section C (Either/Or Type)**Answer All Questions****(5 x 5 = 25 marks)**

Q.No	CLO	K Level	Questions
16) a	CLO1	K1	
16) b	CLO1	K1	
17) a	CLO2	K3	
17) b	CLO2	K3	
18) a	CLO3	K3	
18) b	CLO3	K3	
19) a	CLO4	K4	
19) b	CLO4	K4	
20) a	CLO5	K2	
20) b	CLO5	K2	

Section D (Open Choice)**Answer Any Three questions****(3x10=30 marks)**

Q.No	CLO	K Level	Questions
21	CLO1	K2	
22	CLO2	K3	
23	CLO3	K4	
24	CLO4	K3	
25	CLO5	K3	

NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.

Lesson Plan

Unit	Financial Accounting – I	Hrs	Mode
I	Definition – Accounting Principles, Concepts and Conventions	6	Chalk & Talk, PPT
	Rules – Accounting Equation – Double Entry System - Advantages of Double entry system	6	
	Basic knowledge of Accounting Standards and Ind AS.	6	
II	Bank Reconciliation Statement	6	Chalk & Talk, Exercise
	Trial Balance	6	
	Rectification of errors – Suspense Account – Effect of errors on profit.	6	
III	Preparation of Manufacturing, Trading and Profit and Loss Account and Balance Sheet	6	Chalk & Talk, Exercise
	Adjustment Entries- Closing entries.	6	
IV	Meaning – Causes – Fixed installment method, Written down value method, Change in the providing depreciation with Prospective and Retrospective Effect	6	Chalk & Talk, Exercise Assignment
	Annuity method, Sinking fund method	6	
	Insurance policy method – Depreciation as per Companies Act (useful life method) and Income-Tax Act.	6	
V	Accounting for Insurance claims- Loss of Stock	6	Chalk & Talk, Exercise Assignment
	Loss of Profit (Simple Problems Only).	6	
	Average Due Date & Account Current.	6	

Course Designer Name: Dr. Y. Natarajan, Assistant Professor
 Dr. A. Mayil Murugan, Associate Professor & Head

DEPARTMENT OF COMMERCE				CLASS: I B.Com (General, PA, B&I, CM)				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
I	Major Core - 2	20U1KMC2	Business Communication	4	4	25	75	100

Course Objectives

- To describe the basic concepts of communication, essentials of effective communication and to relate various forms of communication and enable them to know the effective media of communication and barriers.
- To develop better written business communication skills to enhance their writing skills in various forms of business letters and reports.
- To enhance oral business communication skills in the form of Speeches, Group communication, Presentations, Listening and Dialogue skills.
- To write resume for application for different positions independently
- To acquaint knowledge on report writing and able to write business reports

Unit	Course Contents	Hours
I	Introduction Meaning - Definition - Characteristics – Process - Essentials of Effective Communication - Forms of Communication - Verbal and Non-Verbal - Types - Formal and Informal - Media of Communication - Written – Oral - Visual - Audio Visual - Computer based Communication - Barriers and remedies.	12
II	Written Communication Meaning - Business Letters - Essentials of a good Business Letter - Layout - Trade Letters – Enquiries & Offers – Quotations – Orders - Circular Letters - Sales Letters - E-mail Etiquettes.	12
III	Oral Communication Oral and other forms of Communication – Speeches - Group communication - Presentations - Listening – Dialogue skills.	12
IV	Drafting of a resume Application for a situation – Structure - Preparation of Curriculum vitae – Drafting an application for different positions.	12
V	Report Writing Meaning - Types of Business Reports - Structure of a Report - Stock exchange reports and Sales reports.	12

Books for Study

Urmila Rai & S.M Rai, “*Business Communication*”, Second Edition, 2015, Himalaya Publishing House, Mumbai.

Books for Reference

1. Rajendra Pal & J.S. Korlahalli, “*Essentials of Business Communication*”, Thirteenth Edition, 2013, Sultan Chand & Sons, New Delhi.
2. M.S. Ramesh, C.C. Pattanshetti “*Business Communication*”, Twenty Eight Edition, 2015, R. Chand & Co, New Delhi.
3. R.S.N. Pillai&Bagavathi, “*Modern Commercial Correspondence*”, 2007, S.Chand& Company Ltd, New Delhi.
4. Herta A Murphy, Herbert W Hildebrandt & Jane P. Thomas, Seventh Edition, 2010, “*Effective Business Communication*”,MCGraw Hill Education Private Limited, New Delhi.
5. Sanjay Kumar &PushpLata, 2012, “*Communication Skills*”, Oxford University Press.

Web Resources

www.barcodesinc.com, www.mindtools.comwww.mheducation.com

Pedagogy: Chalk & Talk, Assignments, Group Exercises, PPT, Case Lets

Course Learning Outcomes:

CLOs	On completion of the course, the students should be able to	K- Level
CLO 1	Describe the basic concepts of communication, essentials of effective communication and relate various forms of communication	Up to K2
CLO 2	Illustrate written business communication skills and classify writing skills in various forms of business letters.	Up to K3
CLO 3	Communicate orally in the form of Speeches, Group communication, Presentations, Listening and Dialogue skills.	Up to K4
CLO 4	Write resume for application for different positions independently	Up to K4
CLO 5	Acquaint knowledge on report writing and write business reports	Up to K3

Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (POs)

Course Learning Outcomes (CLOs)	Programme Specific Outcomes (with Graduate Attributes)					
	PO 1 (Knowledge Base)	PO 2 (Problem Analysis & Investigation)	PO 3 (Communication Skills & Design)	PO 4 (Individual and Team Work)	PO 5 (Professionalism, Ethics and equity)	PO 6 (Life Long Learning)
CLO 1	3	1	3	2	2	3
CLO 2	3	2	3	2	2	3
CLO 3	3	2	3	3	3	3
CLO 4	2	1	3	1	2	2
CLO 5	3	2	3	2	2	3

3- Advanced Application

2- Intermediate Development

1 - Introductory

Mapping of Course Learning Outcomes (CLOs) with Programme Specific Outcomes (PSOs)

Course Learning Outcomes (CLOs)	Programme Specific Outcomes (with Graduate Attributes)					
	PSO 1 (Knowledge Base)	PSO 2 (Problem Analysis & Investigation)	PSO 3 (Communication Skills & Design)	PSO 4 (Individual and Team Work)	PSO 5 (Professionalism, Ethics and equity)	PSO 6 (Life Long Learning)
CLO 1	3	1	3	2	2	3
CLO 2	3	2	3	2	2	3
CLO 3	3	2	3	3	3	3
CLO 4	2	1	3	1	2	2
CLO 5	3	2	3	2	2	3

3- Advanced Application

2- Intermediate Development

1 - Introductory

Learning Outcome Based Education (LOBE) & Assessment

Formative Examination - Blue Print

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

Internal	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
CIA I	CLO 1	Up to K 2	2	K1&K2	1	K1	2 (K2&K2)	1(K2)
	CLO 2	Up to K 3	2	K1&K2	2	K2	2 (K3&K3)	2(K2 & K3)
CIA II	CLO 3	Up to K 4	2	K1&K2	1	K2	2 (K2&K2)	1(K2)
	CLO 4	Up to K 4	2	K1&K2	2	K2	2 (K3&K3)	2(K3 & K4)
Question Pattern CIA I & II		No. of Questions to be asked	4		3		4	3
		No. of Questions to be answered	4		3		2	2
		Marks for each question	1		2		5	10
		Total Marks for each section	4		6		10	20

Distribution of Marks with K Level CIA I & CIA II

	K Levels	Section A (Multiple Choice Questions)	Section B (Short Answer Questions)	Section C (Either/Or Choice)	Section D (Open Choice)	Total Marks	% of (Marks without choice)	Consolidated %
CIA I	K1	2	2	-	--	4	6.67	67
	K2	2	4	10	20	36	60	
	K3	-	-	10	10	20	33.33	33
	K4	-	-	-	-	-	-	-
	Marks	4	6	20	30	60	100	100
CIA II	K1	2	2	-	--	4	6.67	50
	K2	2	4	10	10	26	43.33	
	K3	-	-	10	10	20	33.33	33
	K4	-	-	-	10	10	16.67	17
	Marks	4	6	20	30	60	100	100

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

CO5 will be allotted for individual Assignment which carries five marks as part of CIA component.

Learning Outcome Based Education (LOBE) & Assessment

Summative Examination-Blue Print

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

S.No	CLOs	K- Level	Section A				Section B (Either/or Choice)	Section C (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO 1	Up to K 2	2	K1&K2	1	K1	2 (K1&K1)	1(K2)
2	CLO 2	Up to K 3	2	K1&K2	1	K1	2 (K3&K3)	1(K3)
3	CLO 3	Up to K 4	2	K1&K2	1	K2	2 (K3&K3)	1(K4)
4	CLO 4	Up to K 4	2	K1&K2	1	K2	2 (K4&K4)	1(K3)
5	CLO 5	Up to K 3	2	K1&K2	1	K2	2 (K2&K2)	1(K3)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Marks with K Level

K Levels	Section A (Multiple Choice Questions)	Section B (Short Answer Questions)	Section C (Either/Or Choice)	Section D (Open Choice)	Total Marks	% of (Marks without choice)	Consolidated %
K1	5	4	10	-	19	15.83	42
K2	5	6	10	10	31	25.83	
K3	-	-	20	30	50	41.67	42
K4	-	-	10	10	20	16.67	16

NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.

Summative Examinations - Question Paper – Format**Course Title: Business Communication**
Time: 3 hours**Course Code: 20U1KMC2**
Maximum Marks: 75**Section A (Multiple Choice Questions)****Answer All Questions****(10x1=10 marks)**

Q.No.	CLO	K Level	Questions
1	CLO1	K1	
2	CLO1	K2	
3	CLO2	K1	
4	CLO2	K2	
5	CLO3	K1	
6	CLO3	K2	
7	CLO4	K1	
8	CLO4	K2	
9	CLO5	K1	
10	CLO5	K2	

Section B (Short Answers)**Answer All Questions****(5 x 2 = 10 marks)**

Q.No.	CLO	K Level	Questions
11	CLO1	K1	
12	CLO2	K1	
13	CLO3	K2	
14	CLO4	K2	
15	CLO5	K2	

Section C (Either/Or Type)**Answer All Questions****(5 x 5 = 25 marks)**

Q.No.	CLO	K Level	Questions
16) a	CLO1	K1	
16) b	CLO1	K1	
17) a	CLO2	K3	
17) b	CLO2	K3	
18) a	CLO3	K3	
18) b	CLO3	K3	
19) a	CLO4	K4	
19) b	CLO4	K4	
20) a	CLO5	K2	
20) b	CLO5	K2	

Section D (Open Choice)**Answer Any Three questions****(3x10=30 marks)**

Q.No.	CLO	K Level	Questions
21	CLO1	K2	
22	CLO2	K3	
23	CLO3	K4	
24	CLO4	K3	
25	CLO5	K3	

NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.

LESSON PLAN

Unit	<i>Course Content</i>	Hours	Mode
I	Introduction Meaning - Definition – Characteristics - Process - Essentials of Effective Communication	4	Chalk & Talk, PPT
	Forms of Communication - Verbal and Non-Verbal - Types - Formal and Informal	4	
	Media of Communication - Written – Oral - Visual - Audio Visual - Computer based Communication - Barriers and remedies.	4	
II	Written Communication Meaning - Business Letters - Essentials of a good Business Letter	4	Chalk & Talk, PPT
	Layout - Trade Letters Enquiries & Offers – Quotations – Orders - Circular Letters	4	
	Sales Letters - E-mail Etiquettes.	4	
III	Oral Communication Oral and other forms of Communication	4	Chalk & Talk, PPT, Group Discussion
	Speeches - Group communication - Presentations	4	
	Listening – Dialogue skills.	4	
IV	Drafting of a resume Application for a situation – Structure	4	Chalk & Talk, PPT, Assignment
	Preparation of Curriculum vitae	4	
	Drafting an application for different positions.	4	
V	Report Writing Meaning - Types of Business Reports	4	Chalk & Talk, PPT, Assignment, Case lets
	Structure of a Report	4	
	Stock exchange reports and Sales reports.	4	

Name of the Course Designer: Dr. K. Hema Malini, Assistant Professor
Dr. R. Vennila, Assistant Professor

DEPARTMENT OF COMMERCE				CLASS: I B.Com (General, PA, B&I, CM)				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
I	Skill Based Elective - 1	20U1KSBE1	Accounting Software	2	2	25	75	100

Course Objectives

- To have basic knowledge on computerized accounting and creation of various activities of accounting software
- To gain comprehensive knowledge on preparation of default vouchers and to create stock groups
- To acquire skill on preparation of order processing and pay roll accounting
- To acquaint knowledge and applicability of GST through accounting software
- To working knowledge on interest calculation and reporting & Budgeting

Unit	Course Contents	Hours
I	Interface and Company Management: Introduction to Tally ERP9 - Creating a Company – Altering and Deleting Company – Data Security: - Multi Language, Export, Import, Backup and Restore:- Ledgers- Creation- Single and multiple - Group – Altering – Deleting.	6
II	Vouchers: Kinds of Vouchers - Inventory- Introduction- Stock Group - Godown and Locations - Stock Category - Units of Measure - Stock Items	6
III	Order Processing and Pay roll accounting: Purchase Order Process - Sales Order Processing- Debit and Credit Notes, Bank Reconciliation-Manufacturing Vouchers: Bills of Materials - Job Costing, Tax Deducted at Source (TDS): Introduction - Creating - Payment - Tax Reports and Forms, Payroll Accounting.	6
IV	Goods and Services Tax(GST): Activating Tally in GST – Introduction - GST Taxes & Invoices - Creating GST Masters in Tally, Purchase Voucher with GST: Updating GST Number for Suppliers -Intra-State Purchase Entry in GST (SGST+CGST+IGST) - GST Purchase Entry for Unregistered Dealer in Tally - Reverse Charge Mechanism Entry for GST in Tally, Sales Voucher with GST: Updating GST Number for Suppliers - Intra-State Sales Entry in GST (SGST + CGST) - Inter-State Sales Entry in GST (IGST) - Printing GST Sales Invoice from Tally ERP9 Software, GST Reports and Returns.	6
V	Interest Calculations (Auto Mode) and Budgeting & Reporting Interest Calculations-Point of Sales, Budgets and Controls: Budget Masters and Configurations - Budget Reporting and Analysis, Cost Centres and Cost Categories: Purchase and Sales Reporting- Analysing Debit and Credit Note - Overdue Payables and Receivables - Outstanding Reports and Printing, Stock Analysis and Reports - Financial Reports- Printing Reports -Miscellaneous- Duplicating Entries - Split Company Data - Merge Tally Companies, Shortcut Keys.	6

Book for Study

1. A.K. Nadhani, Implementing Tally, BPB Publications
2. Dr.P.Rizwan Ahmed, Tally ERP 9, Margham Publications,2016.

Books for Reference:

1. Dr. Mamrata Agrawal, Dream Tech Press, New Delhi,2010
2. K.K. Nandhani, Computerized Accounting under Tally, Implementing Tally, BPB publication. Deva Publications.
3. NamrataAgrawal“Tally9”PublishedbyDreamtech,year–2008.

Pedagogy: Chalk & Talk, PPT, Hands on Training, Lab Classes, Assignment, Case Lets

Course Learning Outcomes:

CLOs	On completion of the course, the students should be able to	K- Level
CLO 1	Create company name & various ledgers, individual & group wise and configure bills and vouchers Create and group various activities of accounting through TALLY	Up to K2
CLO 2	Prepare day books reports and master in stock entry and the inventory reports	Up to K3
CLO 3	Handle the Posting the vouchers through accounting package independently processing of purchase orders, sales order and salary payment	Up to K4
CLO 4	Illustrate and activate GST in preparation of accounting	Up to K3
CLO 5	Demonstrate various interest rate calculations, reports and budgets	Up to K2

Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (POs)

Course Learning Outcomes (CLOs)	Programme Outcomes (with Graduate Attributes)					
	PO 1 (Knowledge Base)	PO 2 (Problem Analysis & Investigation)	PO 3 (Communication Skills & Design)	PO 4 (Individual and Team Work)	PO 5 (Professionalism, Ethics and equity)	PO 6 (Life Long Learning)
CLO 1	3	2	3	2	2	3
CLO 2	3	3	3	2	2	3
CLO 3	3	2	3	3	3	3
CLO 4	3	2	3	3	3	3
CLO 5	3	2	2	2	2	3

3- Advanced Application

2- Intermediate Development

1- Introductory

Mapping of Course Learning Outcomes (CLOs) with Programme Specific Outcomes (PSOs)

Course Learning Outcomes (CLOs)	Programme Specific Outcomes (with Graduate Attributes)					
	PSO 1 (Knowledge Base)	PSO 2 (Problem Analysis & Investigation)	PSO 3 (Communication Skills & Design)	PSO 4 (Individual and Team Work)	PSO 5 (Professionalism, Ethics and equity)	PSO 6 (Life Long Learning)
CLO 1	3	2	3	2	2	3
CLO 2	3	3	3	2	2	3
CLO 3	3	2	3	3	3	3
CLO 4	3	2	3	3	3	3
CLO 5	3	2	2	2	2	3

3- Advanced Application

2- Intermediate Development

1- Introductory

Learning Outcome Based Education (LOBE) & Assessment

Formative Exam- Blue Print

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

Internal	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
CIA I	CLO 1	Up to K 2	2	K1& K2	1	K1	2 (K2&K2)	1(K2)
	CLO 2	Up to K 3	2	K1& K2	2	K2	2 (K3&K3)	2(K2 & K3)
CIA II	CLO 3	Up to K 4	2	K1& K2	1	K2	2 (K3&K3)	2(K3 &K4)
	CLO 4	Up to K 3	2	K1& K2	2	K2	2 (K2&K2)	1(K2)
Question Pattern CIA I & II	No. of Questions to be asked		4		3		4	3
	No. of Questions to be answered		4		3		2	2
	Marks for each question		1		2		5	10
	Total Marks for each section		4		6		10	20

Distribution of Marks with K Level CIA I & CIA II

	K Levels	Section A (Multiple Choice Questions)	Section B (Short Answer Questions)	Section C (Either/Or Choice)	Section D (Open Choice)	Total Marks	% of (Marks without choice)	Consolidated %
CIA I	K1	2	2	-	--	4	6.67	67
	K2	2	4	10	20	36	60	
	K3	-	-	10	10	20	33.33	33
	K4	-	-	-	-	-	-	-
	Marks	4	6	20	30	60	100	100
CIA II	K1	2	2	-	--	4	6.67	50
	K2	2	4	10	10	26	43.33	
	K3	-	-	10	10	20	33.33	33
	K4	-	-	-	10	10	16.67	17
	Marks	4	6	20	30	60	100	100

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

CO5 will be allotted for individual Assignment which carries five marks as part of CIA component.

Learning Outcome Based Education (LOBE) & Assessment

Summative Exam- Blue Print

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

S.No	CLOs	K- Level	Section A				Section B (Either/or Choice)	Section C (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO 1	Up to K 2	2	K1&K2	1	K1	2 (K1&K1)	1(K2)
2	CLO 2	Up to K 3	2	K1&K2	1	K1	2 (K3&K3)	1(K3)
3	CLO 3	Up to K 4	2	K1&K2	1	K2	2 (K4&K4)	1(K4)
4	CLO 4	Up to K 3	2	K1&K2	1	K2	2 (K3&K3)	1(K3)
5	CLO 5	Up to K 2	2	K1&K2	1	K2	2 (K2&K2)	1(K2)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Marks with K Level

K Levels	Section A	Section B	Section C	Section D	Total Marks	% of Marks without choice	Consolidated %
K1	5	4	10	--	19	15.83	50
K2	5	6	10	20	41	34.17	
K3	-	-	20	20	40	33.33	33
K4	-	-	10	10	20	16.67	17
Marks	20	50	50	50	120	100	100

NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.

Summative Examinations - Question Paper – Format**Course Title: Accounting Software**
Time: 3 hours**Course Code: 20U1KSBE1**
Maximum Marks: 75**Section A (Multiple Choice Questions)****Answer All Questions****(10x1=10 marks)**

Q.No.	CLO	K Level	Questions
1	CLO1	K1	
2	CLO1	K2	
3	CLO2	K1	
4	CLO2	K2	
5	CLO3	K1	
6	CLO3	K2	
7	CLO4	K1	
8	CLO4	K2	
9	CLO5	K1	
10	CLO5	K2	

Section B (Short Answers)**Answer All Questions****(5 x 2 = 10 marks)**

Q.No.	CLO	K Level	Questions
11	CLO1	K1	
12	CLO2	K1	
13	CLO3	K2	
14	CLO4	K2	
15	CLO5	K2	

Section C (Either/Or Type)**Answer All Questions****(5 x 5 = 25 marks)**

Q.No.	CLO	K Level	Questions
16) a	CLO1	K1	
16) b	CLO1	K1	
17) a	CLO2	K3	
17) b	CLO2	K3	
18) a	CLO3	K4	
18) b	CLO3	K4	
19) a	CLO4	K3	
19) b	CLO4	K3	
20) a	CLO5	K2	
20) b	CLO5	K2	

Section D (Open Choice)**Answer Any Three questions****(3x10=30 marks)**

Q.No.	CLO	K Level	Questions
21	CLO1	K2	
22	CLO2	K3	
23	CLO3	K4	
24	CLO4	K3	
25	CLO5	K2	

NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.

LESSON PLAN

Unit	Course Content	Hrs	Mode
I	Interface and Company Management: Introduction to Tally ERP9 - Creating a Company	2	Chalk & Talk, PPT, Hands on Training, Lab Classes
	Altering and Deleting Company – Data Security	2	
	Multi Language, Export, Import, Backup and Restore	1	
	Ledgers- Creation- Single and multiple - Group – Altering – Deleting.	1	
II	Default Vouchers: Kinds of Vouchers - Inventory	3	Chalk & Talk, PPT, Hands on Training, Lab Classes
	Stock Group - Godown and Locations - Stock Category - Units of Measure - Stock Items	3	
III	Order Processing and Pay roll accounting: Purchase Order Process - Sales Order Processing- Debit and Credit	1	Chalk & Talk, PPT, Hands on Training, Lab Classes, Assignment
	Notes, Bank Reconciliation-Manufacturing Vouchers: Bills of	2	
	Materials - Job Costing, Tax Deducted at Source (TDS): Introduction TDS- Creating- Payment	1 2	
	Tax Reports and Forms, Payroll Accounting.		
IV	Goods and Services Tax(GST): Activating Tally in GST – Introduction - GST Taxes & Invoices – Creating GST Masters in Tally, Purchase Voucher with GST:	2	Chalk & Talk, PPT, Hands on Training, Lab Classes, Case Lets
	Updating GST Number for Suppliers -Intra-State Purchase Entry in GST (SGST+CGST+IGST) - GST Purchase Entry for Unregistered Dealer in Tally - Reverse Charge Mechanism Entry for GST in Tally, Sales Voucher with GST: Updating GST Number for Suppliers -	2	
	Intra-State Sales Entry in GST (SGST + CGST) - Inter-State Sales Entry in GST (IGST) - Printing GST Sales Invoice from Tally ERP9 Software, GST Reports and Returns.	2	
V	Interest Calculations (Auto Mode) and Budgeting & Reporting Interest Calculations-Point of Sales, Budgets and Controls: Budget Masters and Configurations	2	Chalk & Talk, PPT, Hands on Training, Lab Classes, Assignment
	Budget Reporting and Analysis, Cost Centres and Cost Categories: Purchase and Sales Reporting- Analysing Debit and Credit Note	2	
	Overdue Payables and Receivables - Outstanding Reports and Printing, Stock Analysis and Reports - Financial Reports- Printing Reports -Miscellaneous- Duplicating Entries - Split Company Data - Merge Tally Companies, Shortcut Keys.	2	

Name of the Course Designer: Dr. S. Chandrasekar, Assistant Professor
Dr. A. Karuppusamy, Assistant Professor

I Year – Second Semester

(Common Course for I B.Com. (Aided and SF), I B.Com (Professional Accounting),
I B.Com (Banking & Insurance) and I B.Com (Capital Markets))

Category	Course Code	Courses	Hours	Credit
Part I		Tamil- II /Hindi- II /Sanskrit - II	3	1
Part III-Allied 2	20U2KA2	International Economics	6	4
Major Core 3	20U2KMC3	Financial Accounting - II	6	4
Major Core 4	20U2KMC4	Business Mathematics & Statistics	6	4
Major Core 5	20U2KMC5	Principles of Insurance	6	4
		Environmental & Gender Studies	3	3
		Extension	--	1
Total			30	21

Semester wise Mapping of Course with Programme Outcomes (PO)

	Programme Outcomes	C1-MC 3 Financial Accounting- II	C2-MC 4 Business Mathematics & Statistics	C3- MC 5 Principles of Insurance
GRADUATE ATTRIBUTES	<i>PO 1 (Knowledge Base)</i>	3	3	3
	<i>PO 2 (Problem Analysis & Investigation)</i>	3	2	2
	<i>PO 3 (Communication Skills & Design)</i>	3	3	3
	<i>PO 4 (Individual and Team Work)</i>	2	3	3
	<i>PO 5 (Professionalism, Ethics and equity)</i>	2	2	2
	<i>PO 6 (Life Long Learning)</i>	3	3	3

3- Advanced Application

2- Intermediate Development

1- Introductory

Semester wise Mapping of Course with Programme Specific Outcomes (PSOs)

	Programme Specific Outcomes	C1-MC 3 Financial Accounting- II	C2-MC 4 Business Mathematics & Statistics	C3- MC 5 Principles of Insurance
GRADUATE ATTRIBUTES	<i>PSO 1 (Knowledge Base)</i>	3	3	3
	<i>PSO 2 (Problem Analysis & Investigation)</i>	3	2	2
	<i>PSO 3 (Communication Skills & Design)</i>	3	3	3
	<i>PSO 4 (Individual and Team Work)</i>	2	3	3
	<i>PSO 5 (Professionalism, Ethics and equity)</i>	2	2	2
	<i>PSO 6 (Life Long Learning)</i>	3	3	3

3- Advanced Application

2- Intermediate Development

1- Introductory

DEPARTMENT OF ECONOMICS				CLASS: I B.Com (General, PA, B&I, CM)				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
II	Allied	20U2KA2	International Economics*	4	6	25	75	100

Course Objectives

- To differentiate internal trade from international trade and gains from international trade.
- To obtain knowledge and skill about the trade policy.
- To know about structure and components of balance of payments.
- To evaluate the letter of credit, bills of credit and lading.
- To familiar in foreign exchange, international economic institutions and integrations

Unit	Course Content	Hours
I	Introduction Meaning of International Economics – Definitions – subject matter – Internal vs. International Trade – Similarities – Differences – Gains from International Trade	18
II	Terms of Trade Meaning of Terms of Trade – Types – Balance of Trade vs. Balance of Payments – Favourable and Unfavourable balance of trade – Free Trade – Meaning – Case for and against Free Trade – Protection – Meaning – Arguments for and against Protection	18
III	Balance of Trade and Balance of Payments Meaning of Balance of trade and Balance of Payments – Components – Causes for disequilibrium in Balance of Payments – Measures to correct disequilibrium in Balance of Payments.	18
IV	Letter of Credit, Bills of Exchange and Bills of Lading Meaning – Types of Letter of Credit – Mechanism of Letter of Credit – Bills of Exchange – Types of Bills of Exchange – Demand Bills – Sight Bills – D/A and D/P. Bills of Lading – Meaning – Types.	18
V	Foreign Exchange International Economic Institutions Meaning of exchange rate – kinds – Factors determining exchange rate - International Economic Institutions: IMF –World Bank (IBRD) – WTO – Objectives and Functions – Trade blocks: SAARC, ASEAN & BRICS.	18

Text Books

1. M. L. Seth (2007), “**Money, Banking, International Trade and Public Finance**”, Lakshmi Narain Agarwal, Agra.
2. M. L. Jhingan (2011), “**International Economics**”, Vrinda Publications (P) Ltd, Delhi.

References

1. M. C. Vaish Sudama Singh (2006), “**International Economics**”, Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi.
2. K. C. Rana & K. N. Verma (2012), “**International Economics**”, Vishal Publishing Co., Jalandar, Delhi.
3. W. Charles Sawyer & Richard L. Sprinkle (2010), “**International Economics**”, PHI Learning Private Ltd, New Delhi.

Websites / e-books

1. <https://www.e-booksdirectory.com/> E-Books directory is a daily growing list of links to freely accessible eBooks'
2. <https://www.saylor.org>
3. <https://www.springer.com>

Pedagogy: Chalk and Talk, Peer Teaching and Learning, ICT enabled teaching aids.

***Syllabus for the course on 'International Economics' is being passed by the Board of Studies of Department of Economics.**

S. No.	COURSE OUTCOME	Knowledge Level
CLO1	Student gets equipped with the knowledge on subject matter of international economics and gains from international trade.	Up to K1
CLO2	Examine the case for and against free trade and protection	Up to K3
CLO3	Evaluate the causes for disequilibrium and measures to control it	Up to K4
CLO4	Analyze the letter to credit, bill of exchange and bills of lading	Up to K4
CLO5	Outline the objectives and functions of international economic institutions	Up to K2

Learning Outcome Based Education (LOBE) & Assessment

Formative Exam – Blue Print (CIA I & II)

Articulation Mapping - K Levels with Course Learning Outcomes (CLOs)

Internal	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
CIA I	CLO 1	Up to K1	2	K1& K1	1	K1	2 (K1&K1)	1(K1)
	CLO 2	Up to K4	2	K1& K2	2	K2	2 (K4&K4)	2(K3&K4)
CIA II	CLO 3	Up to K3	2	K1& K2	1	K1	2 (K3&K3)	1(K3)
	CLO 4	Up to K4	2	K1& K2	2	K2	2 (K3&K3)	2(K3&K4)
Question Pattern (CIA I & II)	No. of Questions to be asked		4		3		4	3
	No. of Questions to be answered		4		2		2	2
	Marks for each question		1		2		5	10
	Total Marks for each section		4		6		10	20

- *CLO5 will be allotted for individual Assignment which carries five marks as part of CIA component.*

Distribution of Section-wise Marks with K Levels *

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated %
K1	2	2	10	10	24	40.00	50
K2	2	4	-	-	06	10.00	
K3	-	-	-	10	10	16.67	17
K4	-	-	10	10	20	33.33	33
Total Marks	4	6	20	30	60	100.00	100%

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (Either/or)	Section D (Open Choice)	Total Marks	% of Marks without choice	Consolidated
K1	2	2	-	-	4	6.67	17
K2	2	4	-	-	6	10.00	
K3	-	-	20	20	40	66.67	67
K4	-	-	-	10	10	16.66	16
Total Marks	4	6	20	30	60	100.00	100%

Mapping of Course Learning Outcomes (CLOs) with Programme Specific Outcomes (PSO's)

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CLO 1	3	3	3	2	3	2
CLO 2	3	2	3	1	-	-
CLO 3	3	3	3	2	-	3
CLO 4	3	2	3	-	-	3
CLO 5	3	3	3	1	-	3

Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (PO's)

	PO 1	PO 2	PO 3	PO 4	PO 5
CLO 1	3	1	3	3	2
CLO 2	3	3	3	2	-
CLO 3	3	2	3	3	1
CLO 4	3	3	2	3	3
CLO 5	3	3	2	2	2

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

Units	CLOs	K-Level	Section – A		Section – B		Section – C (Either / or Choice)	Section – D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K-Level	No. of Questions	K-Level		
1	CLO 1	Up to K1	2	K1 & K2	1	K1	2(K1&K1)	1(K1)
2	CLO 2	Up to K4	2	K1 & K2	1	K1	2(K4 &K4)	1(K4)
3	CLO 3	Up to K3	2	K1 & K2	1	K2	2(K3&K3)	1(K3)
4	CLO 4	Up to K4	2	K1 & K2	1	K2	2(K4&K4)	1(K4)
5	CLO 5	Up to K2	2	K1 & K2	1	K2	2(K2&K2)	1(K2)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

Distribution of Section-Wise Marks with K Levels

K Levels	Section A (No Choice)	Section B (No Choice)	Section C (No Choice)	Section D (No Choice)	Total Marks	% of Marks (without choice)	Consolidated
K1	5	4	10	10	29	24.17	50
K2	5	6	10	10	31	25.83	
K3	-	-	10	10	20	16.67	17
K4	-	-	20	20	40	33.33	33
Total Marks	10	10	50	50	120	100.00	100

Summative Examinations - Question Paper – Format

Course Title: *International Economics*

Course Code :

Time : 3 hours

Maximum Marks : 75

Section A (Multiple Choice Questions)

Answer All Questions

(10x1=10 marks)

Q.No.	CLO	K Level	Questions
1	CLO1	K1	
2	CLO1	K2	
3	CLO2	K1	
4	CLO2	K2	
5	CLO3	K1	
6	CLO3	K2	
7	CLO4	K1	
8	CLO4	K2	
9	CLO5	K1	
10	CLO5	K2	

Section B (Short Answers)

Answer All Questions

(5 x 2 = 10 marks)

Q.No.	CLO	K Level	Questions
11	CLO1	K1	
12	CLO2	K1	
13	CLO3	K2	
14	CLO4	K2	
15	CLO5	K2	

Section C (Either/Or Type)

Answer All Questions

(5 x 5 = 25 marks)

Q.No.	CLO	K Level	Questions
16) a	CLO1	K1	
16) b	CLO1	K1	
17) a	CLO2	K4	
17) b	CLO2	K4	
18) a	CLO3	K3	
18) b	CLO3	K3	
19) a	CLO4	K4	
19) b	CLO4	K4	
20) a	CLO5	K2	
20) b	CLO5	K2	

Section D (Open Choice)

Answer Any Three questions

(3x10=30 marks)

Q.No.	CLO	K Level	Questions
21	CLO1	K1	
22	CLO2	K4	
23	CLO3	K3	
24	CLO4	K4	
25	CLO5	K2	

NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.

Lesson Plan

Units	Description	Hours	Mode
I	Meaning and Definitions of International Economics Subject matter	2	Chalk and Talk
	Internal vs. International Trade: Similarities and Differences	6	
	Gains from International Trade	5	
		5	
II	Meaning and Types of Terms of Trade	5	Chalk and Talk, Peer Teaching
	Balance of Trade vs. Balance of Payments	2	
	Favourable and Unfavourable balance of trade	6	
	Free Trade – Meaning – Case for and against Free Trade – Protection – Meaning – Arguments for and against Protection	5	
III	Meaning of Balance of trade and Balance of Payments Components	6	Chalk and Talk, PPT
	Causes for disequilibrium in Balance of Payments Measures to correct disequilibrium in Balance of Payments.	6	
		6	
IV	Meaning, Types and mechanism of credit	6	Chalk and Talk, PPT
	Bills of exchange, types of exchange	6	
	Demand bill, sight bill, TA/DA bill and lading	6	
V	Meaning of exchange rate and kinds and factors determining exchange rate	4	Chalk and Talk, PPT
	International Economic Institutions: IMF –World Bank (IBRD) –	5	
	WTO – Objectives and Functions	4	
	Trade blocks: SAARC, ASEAN & BRICS	5	

Course Designers: Dr. S. Theenathayalan, Associate Professor and Head Department of Economics and Centre for Research in Economics

DEPARTMENT OF COMMERCE				CLASS: I B.Com (General, PA, B&I, CM)				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
II	Major Core 3	20U2KMC3	Financial Accounting – II	4	6	25	75	100

Course Objectives

- To gain accounting knowledge in consignment
- To understand the concept of Joint Venture and to prepare relevant books of accounts in the concerned parties
- To prepare Self Balancing Ledgers and its reconciliation
- To familiarize the concept of Royalty and its accounting treatment
- To solve problems relating to conversion of single entry account to double entry
- To prepare accounting Not –for-Profit Organisation and books to be maintained

Unit	Course Contents	Hours
I	Consignment Meaning - Distinction between sale and consignment – Account sale – Journal entries and Ledger Accounts in the books of consignor and consignee – Valuation of unsold stock on Consignment – Normal loss and Abnormal loss – Invoicing goods higher than cost.	18
II	Joint Venture :Meaning - Journal & Ledger Accounts in the books of Venturers - Existing books - Separate Set of Books - Memorandum Joint Venture method.	18
III	Self- Balancing Ledgers Meaning - Sectional Balancing (Excluding Errors affecting Self Balancing Ledgers) Royalty Account: Meaning - Minimum Rent- Short working - Recouping short workings- Restricted and unrestricted – Entries and Ledger Accounts in the Books of Lessor and Lessee – Sub-Lease.	18
IV	Accounting for Incomplete Records Introduction - Ascertainment of Profit – Net worth Method - Conversion Method.	18
V	Financial Statements for Not-for-Profit Organisation Meaning- Distinction between profitable and Not for Profitable Organisation – Books to be maintained - Distinction between Capital and Revenue – Basic Records – Preparation of Income and Expenditure Account and Balance sheet from Receipts and Payments and vice versa.	18

The Questions should be asked in the ratio of 80% for Problems and 20 % for theory

Books for Study

1. S.P. Jain & K.L Narang, “*Advanced Accountancy*” Vol-I, Nineteenth Edition, 2015, Kalyani Publishers, Mumbai.

Books for Reference

1. R.L. Gupta & M. Radhaswamy, “*Advanced Accountancy*”Vol-I, 2015, Sultan Chand & Sons, New Delhi.
2. M.A. Arulanandam& K.S. Raman, “*Advanced Accountancy*”Vol-I, Sixth Edition, 2015, Himalaya Publishing House, Mumbai.
3. S. N. Maheshwari&Suneel K Maheshwari, “*Financial Accounting*”, Fifth Edition, 2012, Vikas Publishing House.
4. R.S.N. Pillai, Bagavathi& S. Uma, “*Fundamentals of Advanced Accountancy*”, Third Edition, 2015, S. Chand, New Delhi.
5. SP. Iyengar, “*Advanced Accountancy*” Vol-I, Fourth Edition, 2004.Sultan Chand & Sons, New Delhi.

Pedagogy: Chalk & Talk, PPT, Exercise, Assignment

CLOs	On completion of the course, the students should be able to	K- Level
CLO 1	Describe the concept of consignment and prepare various accounting treatment in consignment	Up to K 2
CLO 2	Prepare accounting for business of Joint Venture	Up to K 3
CLO 3	Summarize & reconcile various ledgers through Self Balancing and illustrate various accounting treatment, presentation & calculation with respect to accounting for royalty business	Up to K 4
CLO 4	Get convergent knowledge on single entry and double entry system	Up to K 4
CLO 5	To prepare final accounts for ‘ Not-for-Profit –Organisation’	Up to K 3

Mapping of Course Learning Outcomes (CLOs) with Programme Specific Outcomes (PSOs)

Course Learning Outcomes (CLOs)	Programme Outcomes (with Graduate Attributes)					
	PO 1 (Knowledge Base)	PO 2 (Problem Analysis & Investigation)	PO 3 (Communication Skills & Design)	PO 4 (Individual and Team Work)	PO 5 (Professionalism, Ethics and equity)	PO 6 (Life Long Learning)
CLO 1	3	3	3	2	2	3
CLO 2	3	3	2	2	2	3
CLO 3	3	3	2	3	2	3
CLO 4	3	3	2	2	2	2
CLO 5	3	3	2	2	2	3

3- Advanced Application

2- Intermediate Development

1 - Introductory

Mapping of Course Learning Outcomes (CLOs) with Programme Specific Outcomes (PSOs)

Course Learning Outcomes (CLOs)	Programme Specific Outcomes (with Graduate Attributes)					
	PSO 1 (Knowledge Base)	PSO 2 (Problem Analysis & Investigation)	PSO 3 (Communication Skills & Design)	PSO 4 (Individual and Team Work)	PSO 5 (Professionalism, Ethics and equity)	PSO 6 (Life Long Learning)
CLO 1	3	3	3	2	2	3
CLO 2	3	3	2	2	2	3
CLO 3	3	3	2	3	2	3
CLO 4	3	3	2	2	2	2
CLO 5	3	3	2	2	2	3

3- Advanced Application 2- Intermediate Development 1- Introductory

Learning Outcome Based Education (LOBE) & Assessment

Formative Examination - Blue Print

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

Internal	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
CIA I	CLO 1	Up to K 2	2	K1&K2	1	K1	2 (K2&K2)	1(K2)
	CLO 2	Up to K 3	2	K1&K2	2	K2	2 (K3&K3)	2(K2 & K3)
CIA II	CLO 3	Up to K 4	2	K1&K2	1	K2	2 (K2&K2)	1(K2)
	CLO 4	Up to K 4	2	K1&K2	2	K2	2 (K3&K3)	2(K3 &K4)
Question Pattern CIA I & II	No. of Questions to be asked		4		3		4	3
	No. of Questions to be answered		4		3		2	2
	Marks for each question		1		2		5	10
	Total Marks for each section		4		6		10	20

Distribution of Marks with K Level CIA I & CIA II

	K Levels	Section A (Multiple Choice Questions)	Section B (Short Answer Questions)	Section C (Either/Or Choice)	Section D (Open Choice)	Total Marks	% of (Marks without choice)	Consolidated %
CIA I	K1	2	2	-	--	4	6.67	67
	K2	2	4	10	20	36	60	
	K3	-	-	10	10	20	33.33	33
	K4	-	-	-	-	-	-	-
	Marks	4	6	20	30	60	100	100
CIA II	K1	2	2	-	--	4	6.67	50
	K2	2	4	10	10	26	43.33	
	K3	-	-	10	10	20	33.33	33
	K4	-	-	-	10	10	16.67	17
	Marks	4	6	20	30	60	100	100

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

CO5 will be allotted for individual Assignment which carries five marks as part of CIA component.

Learning Outcome Based Education (LOBE) & Assessment

Summative Examination - Blue Print

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

S.No	CLOs	K- Level	Section A				Section B (Either/or Choice)	Section C (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO 1	Up to K 2	2	K1&K2	1	K1	2 (K1&K1)	1(K2)
2	CLO 2	Up to K 3	2	K1&K2	1	K1	2 (K3&K3)	1(K3)
3	CLO 3	Up to K 4	2	K1&K2	1	K2	2 (K4&K4)	1(K3)
4	CLO 4	Up to K 4	2	K1&K2	1	K2	2 (K3&K3)	1(K4)
5	CLO 5	Up to K 3	2	K1&K2	1	K2	2 (K2&K2)	1(K3)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

(Figures in parenthesis denotes, questions should be asked with the given K level)

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Marks with K Level

K Levels	Section A (Multiple Choice Questions)	Section B (Short Answer Questions)	Section C (Either/Or Choice)	Section D (Open Choice)	Total Marks	% of (Marks without choice)	Consolidated %
K1	5	4	10	-	19	15.83	42
K2	5	6	10	10	31	25.83	
K3	-	-	20	30	50	41.67	42
K4	-	-	10	10	20	16.67	16

NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.

Summative Examinations - Question Paper – Format**Course Title: Financial Accounting – II****Course Code: 20U2KMC3****Time: 3 hours****Maximum Marks: 75****Section A (Multiple Choice Questions)****Answer All Questions****(10x1=10 marks)**

Q.No.	CLO	K Level	Questions
1	CLO1	K1	
2	CLO1	K2	
3	CLO2	K1	
4	CLO2	K2	
5	CLO3	K1	
6	CLO3	K2	
7	CLO4	K1	
8	CLO4	K2	
9	CLO5	K1	
10	CLO5	K2	

Section B (Short Answers)**Answer All Questions****(5 x 2 = 10 marks)**

Q.No.	CLO	K Level	Questions
11	CLO1	K1	
12	CLO2	K1	
13	CLO3	K2	
14	CLO4	K2	
15	CLO5	K2	

Section C (Either/Or Type)**Answer All Questions****(5 x 5 = 25 marks)**

Q.No.	CLO	K Level	Questions
16) a	CLO1	K1	
16) b	CLO1	K1	
17) a	CLO2	K3	
17) b	CLO2	K3	
18) a	CLO3	K4	
18) b	CLO3	K4	
19) a	CLO4	K3	
19) b	CLO4	K3	
20) a	CLO5	K2	
20) b	CLO5	K2	

Section D (Open Choice)**Answer Any Three questions****(3x10=30 marks)**

Q.No.	CLO	K Level	Questions
21	CLO1	K2	
22	CLO2	K3	
23	CLO3	K3	
24	CLO4	K4	
25	CLO5	K3	

NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.

Lesson plan

Unit	Course Contents	Hours	Mode
I	Consignment Meaning - Distinction between sale and consignment – Account sale	5	Chalk & Talk, Exercise PPT
	Journal entries and Ledger Accounts in the books of consignor and consignee	5	
	Valuation of unsold stock on Consignment	5	
	Normal loss and Abnormal loss – Invoicing goods higher than cost.	3	
II	Joint Venture : Meaning - Journal & Ledger Accounts in the books of Ventures	6	Chalk & Talk, Exercise
	Existing books - Separate Set of Books	6	
	Memorandum Joint Venture method.	6	
III	Self- Balancing Ledgers Meaning - Sectional Balancing (Excluding Errors affecting Self Balancing Ledgers)	4	Chalk & Talk, Exercise
	Royalty Account: Meaning - Minimum Rent	5	
	Short working - Recouping short workings- Restricted and unrestricted	6	
	Entries and Ledger Accounts in the Books of Lessor and Lessee – Sub-Lease.	6	
IV	Accounting for Incomplete Records Introduction - Ascertainment of Profit	6	Chalk & Talk, Exercise Assignment
	Net worth Method	6	
	Conversion Method.	6	
V	Financial Statements for Not-for-Profit Organisation Meaning- Distinction between profitable and Not for Profitable Organisation	4	Chalk & Talk, Exercise Assignment
	Books to be maintained	4	
	Distinction between Capital and Revenue – Basic Records	4	
	Preparation of Income and Expenditure Account and Balance sheet from Receipts and Payments and vice versa.	6	

Name of the Course Designer: Dr. A. Mayil Murugan, Associate Professor & Head
Dr. K. Hema Malini, Assistant Professor

DEPARTMENT OF COMMERCE				CLASS: I B.Com (General, PA, B&I, CM)				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
II	Major core 4	20U2KMC4	<i>Business Mathematics & Statistics</i>	4	6	25	75	100

Course Objectives

<ul style="list-style-type: none"> • To acquaint knowledge with the familiarity with the number system, ratios, proportion, indices and surds and to equip in calculating simple interest, compound interest, EMI and annuity payments. • To solve problems relating to matrices and determinants and to calculate summation of series through AP& GP • To gain knowledge on the concept of statistics, graphical and diagrammatic presentation of business • To acquire skills on application of averages and measures of dispersion in business • To acquire skills towards solving problems in time series analysis and Index numbers

Unit	Course Contents	Hours
I	Number System, Ratios & Indices Development of number system Operations on Numbers – Development of number system – Natural number – Integers – Rational and Irrational numbers – Imaginary numbers – Complex numbers. Ratios and Proportions-Theory of Indices and Surds - Logarithms. Commercial Arithmetic Interest and Annuities - Simple and Compound Interest - Rule 72 – EMI – Annuity - Future value - Present value - Sinking fund.	18
II	Matrices and Determinants Solving Equations using Crammers Rule and Matrix Inversion only - Permutations and Combinations - Progressions - Arithmetic and Geometric.	18
III	Introduction to Statistics Definition – Functions - Collection, Classification, Tabulation and Presentation of Data - Frequency Distribution - Graphical and Diagrammatic Presentation – Histogram - Frequency Polygon – Ogive - Bar and Pie Diagram.	18
IV	Measures of Central Tendency and Dispersion Mean – Meaning – Definition – Arithmetic Mean, Geometric Mean & Harmonic Mean – Combined Mean - Median, Quartiles, Deciles and Percentiles – Mode (Uni and Bi Model) - Measures of Dispersion – Range - Standard Deviation - Combined Standard Deviation - Coefficient of Variation.	18
V	Index Numbers and Analysis of Time series Index Numbers – Meaning – Types – Definition - Methods - Tests of consistency of Index number (Time reversal & Factor reversal test) - Cost of Living Index – Chain Base – Fixed Base – Base shifting. Analysis of Time Series – Meaning – Definition - Models - Method of Least Square and Moving Average.	18

Note: The Questions should be asked in the ratio of 80% Problems and 20 % Theory Books for Study

1. C.K. Ranganath, C.S. Sampagiram and Y. Rajaram, *“Business Mathematics”*, Third Edition, 2014, Himalaya Publishing House, Mumbai.
2. RSN. Pillai & Bagavathi, *“Business Statistics”*, Eight Edition, 2016, S.Chand& Co Pvt., Ltd., New Delhi.

Books for Reference

1. QaziZameeruddin, Vijay K Khanna& S.K. Bhambri, *“Business Mathematics”*, Second Edition, 2015, Vikas Publishing House Pvt Ltd.
2. V. Sundaresan and S.D.Jeyaseelan, *“An Introduction to Business Mathematics”*, 2010, S.Chand (G/L) & Company Ltd.
3. S.P. Gupta, *“Statistical Methods”*, Forty Fourth Edition, 2014, Sultan Chand & Sons, New Delhi.
4. S.C. Gupta & V.K. Kapoor, *“Fundamentals of Mathematical Statistics”*, 2014, Sultan Chand & Sons, New Delhi.

Pedagogy: Chalk & Talk, Assignments, Exercises, PPT

Course Learning Outcomes:

CLOs	On completion of the course, the students should be able to	K- Level
CLO 1	Relate various number systems Working knowledge on ratios, proportion, indices and surds. Estimate the time value of money through interest and annuities	Up to K2
CLO 2	Estimate sum of the series by AP, GP and in solving the problems relating to matrices and determinants	Up to K3
CLO 3	Describe the concept of statistics and its applicability Illustrate data through diagrammatical and graphical presentation	Up to K2
CLO 4	Distinguish various types of averages and relate with measures of dispersion	Up to K3
CLO 5	Categorize price, quantity index with time and factor reversal test and Cost of Living Index and illustrate time series analysis	Up to K4

Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (POs)

Course Learning Outcomes (CLOs)	Programme Specific Outcomes (with Graduate Attributes)					
	PO 1 (Knowledge Base)	PO 2 (Problem Analysis & Investigation)	PO 3 (Communication Skills & Design)	PO 4 (Individual and Team Work)	PO 5 (Professionalism, Ethics and equity)	PO 6 (Life Long Learning)
CLO 1	3	1	3	2	2	3
CLO 2	3	2	3	2	2	3
CLO 3	3	2	3	3	3	3
CLO 4	2	1	3	1	2	2
CLO 5	3	2	3	2	2	3

3- Advanced Application

2- Intermediate Development

1- Introductory

Mapping of Course Learning Outcomes (CLOs) with Programme Specific Outcomes (PSOs)

Course Learning Outcomes (CLOs)	Programme Specific Outcomes (with Graduate Attributes)					
	PSO 1 (Knowledge Base)	PSO 2 (Problem Analysis & Investigation)	PSO 3 (Communication Skills & Design)	PSO 4 (Individual and Team Work)	PSO 5 (Professionalism, Ethics and equity)	PSO 6 (Life Long Learning)
CLO 1	3	1	3	2	2	3
CLO 2	3	2	3	2	2	3
CLO 3	3	2	3	3	3	3
CLO 4	2	1	3	1	2	2
CLO 5	3	2	3	2	2	3

3- Advanced Application 2- Intermediate Development 1- Introductory

Learning Outcome Based Education (LOBE) & Assessment

Formative Examination- Blue Print

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

Internal	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
CIA I	CLO 1	Up to K 2	2	K1&K2	1	K1	2 (K2&K2)	1 (K2)
	CLO 2	Up to K 3	2	K1&K2	2	K2	2 (K3&K3)	2 (K2 & K3)
CIA II	CLO 3	Up to K 2	2	K1&K2	1	K2	2 (K2&K2)	1 (K2)
	CLO 4	Up to K 3	2	K1&K2	2	K2	2 (K3&K3)	2 (K3 & K3)
Question Pattern CIA I & II		No. of Questions to be asked	4		3		4	3
		No. of Questions to be answered	4		3		2	2
		Marks for each question	1		2		5	10
		Total Marks for each section	4		6		10	20

Distribution of Marks with K Level CIA I & CIA II

	K Levels	Section A (Multiple Choice Questions)	Section B (Short Answer Questions)	Section C (Either/Or Choice)	Section D (Open Choice)	Total Marks	% of (Marks without choice)	Consolidated %
CIA I	K1	2	2	-	--	4	6.67	67
	K2	2	4	10	20	36	60	
	K3	-	-	10	10	20	33.33	33
	K4	-	-	-	-	-	-	-
	Marks	4	6	20	30	60	100	100
CIA II	K1	2	2	-	--	4	6.67	50
	K2	2	4	10	10	26	43.33	
	K3	-	-	10	20	30	50.00	50
	K4	-	-	-	-	-	-	-
	Marks	4	6	20	30	60	100	100

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

CO5 will be allotted for individual Assignment which carries five marks as part of CIA component.

Learning Outcome Based Education (LOBE) & Assessment

Summative Examination - Blue Print

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

S.No.	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO 1	Up to K 2	2	K1& K2	1	K1	2 (K1&K1)	1(K2)
2	CLO 2	Up to K 3	2	K1& K2	1	K1	2 (K3&K3)	1(K3)
3	CLO 3	Up to K 2	2	K1& K2	1	K2	2 (K2&K2)	1(K2)
4	CLO 4	Up to K 3	2	K1& K2	1	K2	2 (K3&K3)	1(K3)
5	CLO 5	Up to K 4	2	K1& K2	1	K2	2 (K4&K4)	1(K4)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Marks with K Level

K Levels	Section A (Multiple Choice Questions)	Section B (Short Answer Questions)	Section C (Either/Or Choice)	Section D (Open Choice)	Total Marks	% of (Marks without choice)	Consolidated %
K1	5	4	10	--	19	15.83	50
K2	5	6	10	20	41	34.17	
K3	-	-	20	20	40	33.33	33
K4	-	-	10	10	20	16.67	17
Marks	20	50	50	50	120	100	100

NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.

Summative Examinations - Question Paper – Format

Course Title: Business Mathematics

Course Code: 20U2KMC4

Time: 3 hours

Maximum Marks: 75

Section A (Multiple Choice Questions)

Answer All Questions

(10x1=10 marks)

Q.No	CLO	K Level	Questions
1	CLO1	K1	
2	CLO1	K2	
3	CLO2	K1	
4	CLO2	K2	
5	CLO3	K1	
6	CLO3	K2	
7	CLO4	K1	
8	CLO4	K2	
9	CLO5	K1	
10	CLO5	K2	

Section B (Short Answers)

Answer All Questions

(5 x 2 = 10 marks)

Q.No	CLO	K Level	Questions
11	CLO1	K1	
12	CLO2	K1	
13	CLO3	K2	
14	CLO4	K2	
15	CLO5	K2	

Section C (Either/Or Type)

Answer All Questions

(5 x 5 = 25 marks)

Q.No	CLO	K Level	Questions
16) a	CLO1	K1	
16) b	CLO1	K1	
17) a	CLO2	K3	
17) b	CLO2	K3	
18) a	CLO3	K2	
18) b	CLO3	K2	
19) a	CLO4	K3	
19) b	CLO4	K3	
20) a	CLO5	K4	
20) b	CLO5	K4	

Section C (Open Choice)

Answer Any Three questions

(3x10=30 marks)

Q.No	CLO	K Level	Questions
21	CLO1	K2	
22	CLO2	K3	
23	CLO3	K2	
24	CLO4	K3	
25	CLO5	K4	

NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.

LESSON PLAN

Unit	Course Contents	Hrs	Mode of Teaching
I	Number System, Ratios & Indices Development of number system Operations on Numbers - Development of number system – Natural number - Integers – Rational and Irrational numbers - Imaginary numbers – Complex numbers	6	Chalk and Talk Exercise
	Ratios and Proportions	6	
	Theory of Indices and Surds, Logarithms, Interest and Annuities - Simple and Compound Interest - Rule 72 – EMI – Annuity - Future value - Present value - Sinking fund.	6	
II	Matrices and Determinants Solving Equations using Crammers Rule and Matrix Inversion only Permutations and Combinations	6	Chalk and Talk Exercise Assignment
	Progression, Arithmetic and Geometric.	6	
III	Introduction to Statistics Definition – Functions - Collection, Classification, Tabulation and Presentation of Data - Frequency Distribution	6	Chalk and Talk Exercise
	Graphical and Diagrammatic Presentation – Histogram Frequency Polygon – Ogive - Bar and Pie Diagram.	6	
IV	Measures of Central Tendency Mean – Meaning – Definition – Arithmetic Mean, Geometric Mean	6	Chalk and Talk Exercise
	Harmonic Mean – Combined Mean - Median	6	
	Quartiles, Deciles and Percentiles – Mode (Uni and Bi Model)	6	
	Measures of Dispersion – Range - Standard Deviation - Combined Standard Deviation - Coefficient of Variation.	6	
V	Index Numbers and Analysis of Time series Index Numbers – Meaning – Types – Definition - Methods -	6	Chalk & Talk, Exercise Assignment
	Tests of consistency of Index number (Time reversal & Factor reversal test) Cost of Living Index – Chain Base – Fixed Base – Base shifting.	6	
	Analysis of Time Series – Meaning – Definition - Models - Method of Least Square and Moving Average.	6	

Name of the Course Designer: Dr. A. Mayil Murugan, Associate Professor & Head
Dr. S. Selvakumar, Assistant Professor

DEPARTMENT OF COMMERCE				CLASS: I B.Com (General, PA, B&I, CM)				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
II	Major core 5	20U2KMC5	Principles of Insurance	4	6	25	75	100

Course Objectives

- To acquaint knowledge on the concept of risk, insurance, nature and principles of insurance
- To gain comprehensive knowledge on Business of Insurance and role of intermediaries in Insurance Market
- To understand Life Insurance Policies, products and principles of Insurance
- To gain knowledge of various terminologies in insurance and life Insurance Policies, products and claim procedure
- To know non-life insurance (fire and marine) insurance policy products and policy conditions and acquaint knowledge on personal accident insurance, motor insurance, health insurance, burglary and bancassurance

Unit	Course Contents	Hours
I	Risk Management and Insurance Peril – Risks- Classification –Hazards -Types –Risk Identification and Risk Analysis–Risk Management -Ways to manage the Risks - Advantage and Disadvantage- Loss-Reduction Techniques. Need for Insurance –Concept -History of Insurance in India-Liberalization of the Indian Insurance Sector-Transfer of Insurance Policy-Classes of Insurance: Life Assurance, Health Insurance and General Insurance-scope of Insurance Business	18
II	Business of Insurance and Market Introduction- Understand the ways to manage risk- advantages –Disadvantages-Insurers’ Revenue ad Expenses- Reinsurance – Importance- Fundamentals-Specific Terms used. Role of Insurance in Economic development and social security-Indian Insurance Market – Constituents-Insurers operating in Indian Market- List of Life, Non Life& Specialized Insurance Companies in India- Role of intermediaries – Insurance Marketing Firm-Point of Sales Person-Role of specialists – IRDA-Role of Regulator and other Bodies-Insurance Educational Institutions	18
III	Insurance Customers and Contracts Insured-Categories of Insured – Mindsets of customer – Importance of Ethical Behavior. Insurance Contract- Significance – Principles of Insurable Interest – Principles of Indemnity-Principles of subrogation – Principle of contribution – Principles of utmost good faith - Concept of proximate cause.	18
IV	Insurance Terminology and Life Assurance products Life Assurance and Non- Life Insurance – Terms used – Life Assurance products- Traditional products- features– Types of Life Assurance Plans- ULIP-Choice of funds-Annuities – Feature- Group Insurance policies	18
V	General Insurance products General Insurance products – products offered by Non-life Insurance Companies –Health insurance- Types-Personal Accident Insurance-Motor Insurance- Fire insurance – Features-Marine Insurance –features- various insurance products- miscellaneous insurance category.	18

Books for Study

1. Principles of Insurance – Insurance Institute of India , Mumbai Publication
2. M.N.Mishra &S.B.Mishra ,”Insurance Principles and Practice, S.Chand & Co, New Delhi.

Reference Book

1. P.K.Gupta, “Fundamental of Life Insurance Theories and Application”, PHI Learning Private Ltd, New Delhi
2. Kahinika Mishra, ”Fundamentals of Life Insurance Theories and Applications”, PHI Learning Pvt. Ltd. New Delhi 2010

Web Resources

www.colourlib.com, www.iii.com, www.licindia.in, www.allstate.com

Pedagogy: Chalk & Talk, Assignments, PPTs, & Case studies

Course Learning Outcomes

CLOs	On completion of the course, the students should be able to	K- Level
CLO 1	Indicate various types of risk, perils and hazards associated in business and personal life Distinguish between different types of Risk , Risk Analysis and Risk Management Techniques and describe the concept, importance and evolution of Insurance	Up to K2
CLO 2	Sensitize and Elaborate the business of insurance and the role of intermediaries in Insurance market	Up to K3
CLO 3	Suggest the various Life Insurance Policies and its importance	Up to K3
CLO 4	Site the terminologies in insurance and suggesting suitable life Insurance Policies	Up to K4
CLO 5	Describe concept of non life insurance policies (Fire and Marine) and indicate various policy conditions	Up to K3

Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (PSOs)

Course Learning Outcomes (CLOs)	Programme Outcomes (with Graduate Attributes)					
	PO 1 (Knowledge Base)	PO 2 (Problem Analysis & Investigation)	PO 3 (Communication Skills & Design)	PO 4 (Individual and Team Work)	PO 5 (Professionalism, Ethics and equity)	PO 6 (Life Long Learning)
CLO 1	3	1	2	2	2	3
CLO 2	3	2	2	2	2	3
CLO 3	3	2	3	3	3	3
CLO 4	3	2	2	2	2	3
CLO 5	3	2	2	2	2	3

3- Advanced Application

2- Intermediate Development

1 - Introductory

Mapping of Course Learning Outcomes (CLOs) with Programme Specific Outcomes (PSOs)

Course Learning Outcomes (CLOs)	Programme Specific Outcomes (with Graduate Attributes)					
	PSO 1 (Knowledge Base)	PSO 2 (Problem Analysis & Investigation)	PSO 3 (Communication Skills & Design)	PSO 4 (Individual and Team Work)	PSO 5 (Professionalism, Ethics and equity)	PSO 6 (Life Long Learning)
CLO 1	3	1	2	2	2	3
CLO 2	3	2	2	2	2	3
CLO 3	3	2	3	3	3	3
CLO 4	3	2	2	2	2	3
CLO 5	3	2	2	2	2	3

3- Advanced Application

2- Intermediate Development

1 - Introductory

Learning Outcome Based Education (LOBE) & Assessment

Formative Examination- Blue Print

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

Internal	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
CIA I	CLO 1	Up to K 2	2	K1&K2	1	K1	2 (K2&K2)	1(K2)
	CLO 2	Up to K 3	2	K1&K2	2	K2	2 (K3&K3)	2(K2 & K3)
CIA II	CLO 3	Up to K 3	2	K1&K2	1	K2	2 (K2&K2)	1(K2)
	CLO 4	Up to K 4	2	K1&K2	2	K2	2 (K3&K3)	2(K3 &K4)
Question Pattern CIA I & II	No. of Questions to be asked		4		3		4	3
	No. of Questions to be answered		4		3		2	2
	Marks for each question		1		2		5	10
	Total Marks for each section		4		6		10	20

Distribution of Marks with K Level CIA I & CIA II

	K Levels	Section A (Multiple Choice Questions)	Section B (Short Answer Questions)	Section C (Either/Or Choice)	Section D (Open Choice)	Total Marks	% of (Marks without choice)	Consolidated %
CIA I	K1	2	2	-	--	4	6.67	67
	K2	2	4	10	20	36	60	
	K3	-	-	10	10	20	33.33	33
	K4	-	-	-	-	-	-	-
	Marks	4	6	20	30	60	100	100
CIA II	K1	2	2	-	--	4	6.67	50
	K2	2	4	10	10	26	43.33	
	K3	-	-	10	10	20	33.33	33
	K4	-	-	-	10	10	16.67	17
	Marks	4	6	20	30	60	100	100

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

CO5 will be allotted for individual Assignment which carries five marks as part of CIA component.

Learning Outcome Based Education (LOBE) & Assessment

Summative Examination -Blue Print

Articulation Mapping – K Levels with Course Learning Outcomes (CLOs)

S.No	CLOs	K- Level	Section A				Section B (Either/or Choice)	Section C (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO 1	Up to K 2	2	K1&K2	1	K1	2 (K1&K1)	1(K2)
2	CLO 2	Up to K 3	2	K1&K2	1	K1	2 (K3&K3)	1(K3)
3	CLO 3	Up to K 3	2	K1&K2	1	K2	2 (K2&K2)	1(K3)
4	CLO 4	Up to K 4	2	K1&K2	1	K2	2(K4&K 4)	1(K4)
5	CLO 5	Up to K 3	2	K1&K2	1	K2	2 (K3&K3)	1(K3)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

(Figures in parenthesis denotes, questions should be asked with the given K level)

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Marks with K Level

K Levels	Section A (Multiple Choice Questions)	Section B (Short Answer Questions)	Section C (Either/Or Choice)	Section D (Open Choice)	Total Marks	% of (Marks without choice)	Consolidated %
K1	5	4	10	-	19	15.83	42
K2	5	6	10	10	31	25.83	
K3	-	-	20	30	50	41.67	42
K4	-	-	10	10	20	16.67	16

NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.

Summative Examinations - Question Paper – Format**Course Title: *Principles of Insurance*****Course Code: 20U2KMC4****Time: 3 hours****Maximum Marks: 75****Section A (Multiple Choice Questions)****Answer All Questions****(10x1=10 marks)**

Q.No.	CLO	K Level	Questions
1	CLO1	K1	
2	CLO1	K2	
3	CLO2	K1	
4	CLO2	K2	
5	CLO3	K1	
6	CLO3	K2	
7	CLO4	K1	
8	CLO4	K2	
9	CLO5	K1	
10	CLO5	K2	

Section B (Short Answers)**Answer All Questions****(5 x 2 = 10 marks)**

Q.No.	CLO	K Level	Questions
11	CLO1	K1	
12	CLO2	K1	
13	CLO3	K2	
14	CLO4	K2	
15	CLO5	K2	

Section C (Either/Or Type)**Answer All Questions****(5 x 5 = 25 marks)**

Q.No.	CLO	K Level	Questions
16) a	CLO1	K1	
16) b	CLO1	K1	
17) a	CLO2	K3	
17) b	CLO2	K3	
18) a	CLO3	K2	
18) b	CLO3	K2	
19) a	CLO4	K4	
19) b	CLO4	K4	
20) a	CLO5	K3	
20) b	CLO5	K3	

Section D (Open Choice)**Answer Any Three questions****(3x10=30 marks)**

Q.No.	CLO	K Level	Questions
21	CLO1	K2	
22	CLO2	K3	
23	CLO3	K3	
24	CLO4	K4	
25	CLO5	K3	

NB: Higher level of performance of the students is to be assessed by attempting higher level of K levels.

LESSON PLAN

Unit	Course Content	Hours	Mode
I	Risk Management and Insurance Peril – Risks- Classification –Hazards -Types –Risk Identification and Risk Analysis–Risk Management –	4	Chalk & Talk, PPTs
	Ways to manage the Risks - Advantage and Disadvantage- Loss-Reduction Techniques.	4	
	Need for Insurance –Concept -History of Insurance in India	3	
	Liberalization of the Indian Insurance Sector-Transfer of Insurance Policy-	3	
	Classes of Insurance: Life Assurance, Health Insurance and General Insurance-scope of Insurance Business	4	
II	Business of Insurance and Market Introduction- Understand the ways to manage risk- advantages	4	Chalk & Talk, PPTs, Case lets
	Disadvantages-Insurers' Revenue ad Expenses- Reinsurance – Importance- Fundamentals-Specific Terms used.	4	
	Role of Insurance in Economic development and social security-Indian Insurance Market –	3	
	Constituents-Insurers operating in Indian Market- List of Life, Non Life& Specialized Insurance Companies in India- Role of intermediaries –	3	
	Insurance Marketing Firm-Point of Sales Person-Role of specialists – IRDA- Role of Regulator and other Bodies-Insurance Educational Institutions	4	
III	Insurance Customers and Contracts Insured-Categories of Insured – Mindsets of customer – Importance of Ethical Behavior.	6	Chalk & Talk, PPTs, Case studies, Assignments,
	Insurance Contract- Significance – Principles of Insurable Interest	6	
	Principles of Indemnity-Principles of subrogation – Principle of contribution – Principles of utmost good faith - Concept of proximate cause.	6	
IV	Insurance Terminology and Life Assurance products Life Assurance and Non- Life Insurance – Terms used	6	Chalk & Talk, PPTs
	Life Assurance products- Traditional products- features– Types of Life	6	
	Assurance Plans- ULIP-Choice of funds-Annuities –Feature- Group Insurance policies	6	
V	General Insurance products General Insurance products – products offered by Non-life Insurance	6	Chalk & Talk, Assignments, PPTs, Case studies
	Companies –Health insurance- Types-Personal Accident Insurance-Motor	6	
	Insurance- Fire insurance – Features- Marine Insurance –features- various insurance products- miscellaneous insurance category.	6	

Name of the Course Designer: Dr. S. Selvakumar, Assistant Professor
Dr. Y. Natarajan, Assistant Professor

DEPARTMENT OF COMMERCE

Certificate Courses

Objectives of the Certificate courses

- To get added value certificate course during his/her regular course of study.
- To facilitate the students to acquaint knowledge on contemporary issues in the business environment.
- To develop the students to improve their employability skill in the current competitive scenario.

Guidelines

Eligibility:

Open to all students of Madura College. Preference will be given to final year students of UG and PG.

Maximum number of students per batch: 50

Course duration: 30 hours

Course Timing: After College working timing

Examination Pattern : 25 (Internal):75(External)

Passing minimum: 40 marks

Certificates will be given to the students after completion of course.

<i>DEPARTMENT OF COMMERCE</i>			<i>Certificate Course</i>				
Course Type	Course Code	Course Code Course Title	Credits	Total Contact Hours	CIA	Ext	Total
Certificate	20COMGST	Goods and Services Tax & Accounting Package	2	30			

Course Objectives

- To have basic knowledge on computerized accounting and creation of various activities of accounting software
- To acquire skill on preparation of order processing and pay roll accounting
- To acquaint knowledge and applicability of GST through accounting package
- To understand the concept of GST related terms and its relevance in the GST Act.
- To be able to solve simple problems on GST

Unit	Course Contents	Hours
Unit 1	Introduction of Goods and Services Tax, 2017 (GST) and Registration Meaning of GST – Scope – Features – GST Council - Classification of GST – CGST – IGST – SGST – Definitions – Person – Business – Goods – Services – Registration Procedures - Taxable Person – HSN/SAC classification - Meaning of Supply – Place of Supply – Time and Value of Supply – Charge and Levy.	8
Unit 2	Input Tax Credit (ITC) Meaning – Eligible and Ineligible Input Tax Credit – Tax Credit in respect of Capital Goods – Transfer — Reverse charge Mechanisms – Rates of Taxes – Zero Rated - Exemptions – Job work – Works Contract – Composition Scheme.	6
Unit 3	Compounded Levy Scheme for CGST and IGST Preparation of Tax invoice – Credit and Debit Notes - Filing of Returns – E-Payment of Tax – E-Way Bill - Computation of GST liability. Offences and Penalty	6
Unit 4	Accounting Software Interface and Company Management: Introduction to Tally ERP9 - Creating a Company – Altering and Deleting Company – Data Security - Multi Language, Export, Import, Backup and Restore- Ledger- Creation- Single and multiple Ledger - Group – Altering – Deleting. Vouchers: Kinds of Vouchers – Inventory - Introduction- Units of Measure - Stock Items - Stock Category - Stock Group - Godown and Locations.	5
Unit 5	Accounting package with Goods and Services Tax (GST) Activating Tally in GST – Introduction - GST Taxes & Invoices - Creating GST Masters in Tally, Purchase Voucher with GST: Updating GST Number for Suppliers -Intra-State Purchase Entry in GST (SGST+CGST+IGST) - GST Purchase Entry for Unregistered Dealer in Tally - Reverse Charge Mechanism Entry for GST in Tally, Sales Voucher with GST: Updating GST Number for Suppliers - Intra-State Sales Entry in GST (SGST + CGST) - Inter-State Sales Entry in GST (IGST) - Printing GST Sales Invoice from Tally ERP9 Software, GST Reports and Returns.	5

Book for Study

1. V.S. Datey, *Indirect Taxation*, Taxmann Publication, New Delhi.
2. A.K. Nadhani, *Implementing Tally*, BPB Publications
3. Dr.P.Rizwan Ahmed, *Tally ERP 9*, Margham Publications, 2016.

Books for Reference:

1. *Indirect Taxes*, Institute of Chartered Accountants of India Publications, New Delhi.
2. *Indirect Taxes*, Institute of Cost Accountants of India, Kolkata.
3. V.S. Datey, *Indirect Taxes*, Taxman Publications Pvt., Ltd., New Delhi.
4. Dr. H.C. Mehrotra and Dr. S.P. Goyal, *Indirect Taxes*, Bhawan Publications, Agra.
5. K.K.Nandhani, *Computerized Accounting under Tally, Implementing Tally*, BPB publication. Deva publications.
6. Namrata Agrawal “Tally 9” Published by Dreamtech, year – 2008.

Course Outcomes

CLOs	K- Level	On completion of the course, the students should be able to
CLO 1	Up to K 2	Possess comprehensive knowledge on concept of GST and registration Procedure with concept of Time, Value and place of supply.
CLO 2	Up to K 3	Apply the relevance of Input Tax Credit, Composition Scheme, Reverse Charge Mechanism and rates of taxes with exemptions
CLO 3	Up to K 4	Compute GST Tax Liability with filing of returns
CLO 4	Up to K 3	Create company name & various ledgers, individual & group wise and configure bills and vouchers through Tally Prepare day books reports and master in stock entry and the inventory reports Handle the Posting the vouchers through accounting package independently and prepare reports
CLO 5	Up to K 3	Illustrate and activate GST in preparation of accounting

Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (POs)

Course Learning Outcomes (CLOs)	Programme Outcomes (with Graduate Attributes)					
	PO 1 (Knowledge Base)	PO 2 (Problem Analysis & Investigation)	PO 3 (Communication Skills & Design)	PO 4 (Individual and Team Work)	PO 5 (Professionalism, Ethics and equity)	PO 6 (Life Long Learning)
CLO 1	3	2	2	2	2	3
CLO 2	3	2	2	2	2	3
CLO 3	3	2	2	3	3	3
CLO 4	3	2	2	3	3	3
CLO 5	3	2	2	2	2	3

<i>DEPARTMENT OF COMMERCE</i>			<i>Certificate Course</i>				
Course Type	Course Code	Course Code Course Title	Credits	Total Contact Hours	CIA	Ext	Total
Certificate	20COMEDS	Entrepreneurial Development & Start Ups	2	30			

Course Objectives

- To know the concept of Entrepreneur, types and factors contributing motivating factors
- To sensitize the importance of women in business and business opportunities for women entrepreneurs
- To identify the business opportunities on Startups
- To prepare a business project report independently

Unit	Contents	Hours
Unit 1	Introduction to Entrepreneur & Entrepreneurship Meaning of Entrepreneur – Characteristics – Functions – Entrepreneur Vs Manager – Intrapreneur /Corporate Entrepreneur - Types of Entrepreneur – Motivating Factors – Entrepreneurial Competencies – Entrepreneur and Economic Development.	6
Unit 2	Entrepreneurship Meaning – Definition – Factors stimulating Entrepreneurship – Factors affecting Entrepreneurship growth – Economic factor – Social Factors – Cultural Factors – Personality factors – Psychological and Sociological Factors. Theories of Entrepreneurship – Economic Theory - Social Theory – Psychological Theory – Motivational Theories.	4
Unit 3	Women Entrepreneurs Concept of Women Entrepreneurship – Factors Influencing Women Entrepreneurs – Types – Differences between Men Entrepreneur and Women Entrepreneur - Role of Women Entrepreneurs – Business opportunities for Women Entrepreneurs – Growth of Women Entrepreneurship in India – Institutions supporting Women in Entrepreneurship - Problems – Remedial Measures.	6
Unit 4	Business Idea and Starts Ups Source of Ideas – Identifying a Business Opportunity – Defining Opportunity – Preliminary Evaluation – Start up Initiatives by Government – Mentors – Accelerators – Incubators – Sources of Finance for Start Ups – Failure of Start Ups – Strategies for Success of Start Ups – Start Up Innovation in India.	8
Unit 5	Project Report Meaning – Importance – Precautions -Components – Contents of Project Report – General Information – Project Description – Market Potential – Capital Cost and Means of Finance – Source of Finance – Assessment of Working Capital Requirements – Economic and Social Consideration – Reasons for Failure of a Project – Preparation of Model Project Report.	6

Books for Study

E.Gordon and K. Natarajan, *Entrepreneurial Development*, Himalaya Publishing House, Mumbai.

Books for Reference.

1. Vasant Desai, *Entrepreneurship Development*, 2005, Himalaya Publishing House, New Delhi.
2. Jose Paul, N. Ajith Kumar, *Entrepreneurship Development*, 2003, Himalaya Publishing House, New Delhi.
3. Nandan, *Fundamentals of Entrepreneurship*, PHI Learning, New Delhi.
4. Dr. Jayashree Suresh, *Entrepreneurial Development*, Margham Publications, Chennai

Course Outcomes

CLOs	K- Level	On completion of the course, students should be able to
CLO 1	Up to K 2	Describe the concept of entrepreneur and identify the contributing motivating factors for entrepreneurship
CLO 2	Up to K 3	Describe and apply the various theories of entrepreneurship
CLO 3	Up to K 4	Deliver various business opportunities for women entrepreneurs
CLO 4	Up to K 3	Create the various opportunities for on start-ups
CLO 5	Up to K 3	Prepare and Illustrate a business project report independently

Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (POs)

Course Learning Outcomes (CLOs)	Programme Outcomes (with Graduate Attributes)					
	PO 1 (Knowledge Base)	PO 2 (Problem Analysis & Investigation)	PO 3 (Communication Skills & Design)	PO 4 (Individual and Team Work)	PO 5 (Professionalism, Ethics and equity)	PO 6 (Life Long Learning)
CLO 1	3	3	3	2	2	3
CLO 2	3	2	2	2	2	3
CLO 3	3	2	2	3	3	3
CLO 4	3	2	2	3	3	3
CLO 5	3	3	3	3	3	3

NSE Certificate Courses

Objectives of the Certificate courses

- To get added value certificate course during his/her regular course of study.
- To facilitate the students to acquaint knowledge on contemporary issues in the Capital Markets
- To develop the students to improve their employability skill in the current competitive scenario.

Guidelines

Course Pattern	: ADD-ON Extra Credit Course
Certificate Title	: Financial Market – A Beginners’ Module
Eligibility	: B.Com (Capital Markets) Only
Course Offered	: During II Semester
Maximum number of students per batch	: 40
Course duration	: 45 hours (including exams)
Course Timing	: After the regular college timings
Examination Pattern	: On Line Mode through NSE Portals
Maximum Marks	: 100
Passing minimum	: 40 marks

Faculty: Entire Course will be handled by Faculty of National Stock Exchange

*I B.Com (Capital Markets) – II Semester
NCFM* Online Certificate Course
Add-on Extra Credit Course*

Semester	Course Type	Course Code	Course Title	Credits	Hrs	Total
II	Certificate		Financial Markets: A Beginners' Module	3	45	100

Course Objectives

- To enlighten the knowledge on conceptual frame of financial and capital markets
- To gain knowledge on derivatives markets
- To familiarize the concepts of secondary market, SEBI and stock exchanges
- To identify various types of derivatives, commodity exchanges and financial derivatives
- To gain knowledge on derivatives and financial statement analysis

CLOs	K- Level	Course Outcomes: The students will be able to
CLO 1	Up to K 2	Describe the concept of financial and capital market. Discuss and apply the IPO, Book Building and Depositories
CLO 2	Up to K 3	Outline the concepts of Primary Market, initial Public Offer (IPO) – Book Building through online I IPO and Pricing of issues.
CLO 3	Up to K 4	Examine the Secondary Market, functions of Securities and Exchange Board of India (SEBI), Stock Exchanges and Equity and debt investment
CLO 4	Up to K 3	Distinguish various types of Derivatives, Commodity and commodity exchanges, Commodity and Financial derivatives
CLO 5	Up to K 4	Apply Derivatives and Financial Statement Analysis

Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (POs)

Course Learning Outcomes (CLOs)	Programme Outcomes (with Graduate Attributes)					
	PO 1 (Knowledge Base)	PO 2 (Problem Analysis & Investigation)	PO 3 (Communication Skills & Design)	PO 4 (Individual and Team Work)	PO 5 (Professionalism, Ethics and equity)	PO 6 (Life Long Learning)
CLO 1	3	3	3	2	3	3
CLO 2	3	3	2	2	3	3
CLO 3	3	2	2	3	3	3
CLO 4	3	2	2	3	3	3
CLO 5	3	3	3	3	3	3

NCFM – NSE’s Certification in Financial Markets
I B.Com (Capital Markets) – II Semester
NCFM Online Certificate Course
Add-on Extra Credit Course

Semester	Course Type	Course Code	Course Title	Credits	Hrs	Total
II	Certificate		Financial Markets – A Beginners’ Module	3	45	100

Unit	Course Contents	Hours
Unit 1	Financial Markets Introduction - Markets and Financial Instruments – Types of Markets – Equity Debt – Derivatives commodities – Features of Private & Public Companies – Types of Investment Avenues.	9
Unit 2	Primary Market Introduction – Initial Public Offer (IPO) – Book Building through online I IPO – Eligibility to issue securities – Pricing of issues – Fixed Vs Book building issues – Allotment of shares – Basis of Allotment – Private placement.	9
Unit 3	Secondary Market Introduction - Role and Functions of Securities and Exchange Board of India (SEBI) - Depositories – Stock Exchanges – Intermediaries in the Indian Stock Market Listing – Membership – Trading clearing settlement and Risk Management – Investor Protection Fund (IPF) – Do’s and Don’ts for investors – Equity and debt investment	9
Unit 4	Derivatives Introduction Types of Derivatives – Commodity and commodity exchanges – Commodity Vs Financial derivatives.	9
Unit 5	Financial Statement Analysis Introduction – Balance Sheet – Profit & Loss account – Stock market related ratios – Simple analysis before investing in the shares – Understanding Annual Report.	9

Books for Study

Financial Markets: A Beginners’ Module, NCFM Study Material.

Books for Reference

1. Gordon & Natarajan, *Financial Markets and Services*, Himalaya Publishing House, Mumbai.
2. Bholey L.M. *New Issues Market of India*, Vara Publication Ltd, Mumbai.
3. *Capital markets and Securities Laws*, The Institute of Company Secretaries of India, New Delhi.
4. Srivasta R.M, *Management of Indian Financial Institution*, Himalaya Publishing House, Mumbai
5. Khan MY, *Indian Financial Theory and Practice*, Vikas Publishing House, Delhi
6. Bholey, *Financial Markets and Institutions*, Vara Publication, Mumbai.
7. www.sebi.gov.in

Department of Mathematics

Revised Curriculum
(Choice Based Credit system with Outcome Based Education)
Academic Year 2020-2021 onwards



THE MADURA COLLEGE (AUTONOMOUS), MADURAI-11 DEPARTMENT OF MATHEMATICS

VISSION

To train the students so that they are strong in logic, which enables them to approach, analyze and solve any problem, both scientific and sociological, in an unbiased manner and to enhance the quantitative and analytical skill.

MISSION

- ❖ To provide an environment where students can learn and become an efficient and accurate problem solver of Mathematics and Mathematical applications.
- ❖ To make the students as Mathematical thinkers and enable them to become a long time learners of Mathematics.
- ❖ To make the students to have core knowledge and able to correlate this core mathematical knowledge with other disciplines

PROGRAMME OUTCOMES FOR B.Sc. GRADUATES

At the end of the program the graduates will be able to

- PO1:** Integrate learned skills and knowledge derived from the study of the science and other related disciplines, acquiring the necessary depth and breadth required for a disciplinary perspective.
- PO2:** Demonstrate proficiency in using disciplinary-appropriate methods for research, critical analysis or creative work and provide scientific solutions to the problems of the society.
- PO3:** Communicate conclusions, interpretations, and implications clearly, concisely, and effectively, both orally and in writing for different types of audiences.
- PO4:** Articulate and apply values, principles, ethics and ideals derived from an integrated understanding of their areas of study and demonstrate awareness of current societal and environmental challenges and ways of mitigating them.
- PO5:** Use modern tools, resources and software and be abreast with the emerging trends in their disciplinary area and practice lifelong learning.

PROGRAM EDUCATIONAL OBJECTIVES

After completion of the course the student will

- ❖ Understand the situation, make a mathematical model and find a solution.
- ❖ Obtain the proficiency of mathematical and computational skills to model and solve real life problems.
- ❖ Acquire thorough knowledge on pure, applied and advanced area of Mathematics.
- ❖ Have the ability to face competitive examinations.
- ❖ Think independently in constructing rigorous mathematical proof.
- ❖ Articulate mathematical ideas both oral and writing reasoning.

GRADUATE ATTRIBUTES

- a. Knowledge in core Competency
- b. Problem Analysis
- c. Design and development of solution for complex problems
- d. Conduct investigation of solution for complex problems
- e. Modern tool usage
- f. Environment and sustainability
- g. Ethics
- h. Individual and team work
- i. Communication
- j. Project management and finance
- k. Life-long learning

S. No.	PROGRAM SPECIFIC OUTCOMES	GRADUATE ATTRIBUTES
PSO-1	Develop the skills to systematically solve the problems on Calculus, Classical Algebra and Trigonometry, Analytical Geometry of three dimensions and Vector Calculus, Discrete Mathematics, Mathematical Statistics, Abstract Algebra, Sequence and series, Differential Equations, Real Analysis, Mechanics, Graph theory, Complex Analysis, Operations Research, Linear Algebra, Allied Mathematics for Physics, Allied Mathematics for Chemistry and Skill oriented Mathematical papers.	a, c
PSO-2	Relate and apply Mathematical concepts / parameters in solving real life problems.	b, e
PSO-3	Attain a strong foundation on the mathematical logic and capability of developing mathematical concepts.	a, c
PSO-4	Analyze critically and interpret numerical and graphical data, develop Mathematical solution.	b, c, d
PSO-5	Face competitive examinations by gaining knowledge of solving problems on quantitative methods, reasoning skills.	a, b
PSO-6	Acquire proficiency in developing proofs for mathematical theories independently.	h, k
PSO-7	Obtain knowledge on topics in Pure and Applied Mathematics to pursue higher studies.	a
PSO-8	Apply ethical principles and commit to legal professional ethics, responsibilities, good practices and norms established.	f,g



B.Sc. Mathematics Major – Course Structure
The Madura College (Autonomous), Madurai – 625 011
Department of Mathematics

Semester	Sub. Code	Title of the Paper	Hours	Credits
I		Language-I(Tamil/Hindi/Sanskrit)	6	3
		English -I	6	3
		VE and PE	3	3
	20U1MAC1	Allied Mathematics - I	6	5
	20U1MMC1	Calculus	5	3
	20U1MMC2	Classical Algebra And Trigonometry	4	2
		Total	30	19
II		Language-II(Tamil/Hindi/Sanskrit)	6	3
		English-II	6	3
		EVS and Gender Studies	3	3
	20U2MAC2	Allied Mathematics - II	6	5
	20U2MMC3	Analytical Geometry Of Three Dimension And Vector Calculus	4	4
	20U2MMC4	Discrete Mathematics	5	4
		Extension	-	1
	Total	30	23	
III		Language-III(Tamil/Hindi/Sanskrit)	6	3
		English-III	6	3
		Allied Mathematics-III	6	5
		NME-I	2	2
		Skill based elective-I	2	2
	20U3MMC5	Mathematical Statistics	4	3
	20U3MMC6	Graph theory	4	2
	Total	30	20	
IV		Language-IV(Tamil/Hindi/Sanskrit)	6	3
		English-IV	6	3
		Allied Mathematics-IV	6	5
		NME-II	2	2
		Skill based elective-II	2	2
	20U4MMC7	Sequence and series	4	3
	20U4MMC8	Differential Equations	4	2
	Total	30	20	
V		Skill based elective-III	2	2
	20U5MMC9	Real Analysis	6	6
	20U5MMC10	Mechanics	6	6
	20U5MMC11	Abstract Algebra	6	6
		Major Elective - I	6	5
		Major Elective- II	4	4
	Total	30	29	
VI		Skill based elective-IV	2	2
	20U6MMC12	Complex Analysis	6	6
	20U6MMC13	Operations Research	6	6
	20U6MMC14	Linear Algebra	6	6
		Major Elective-III	6	5
		Major Elective-IV	4	4
	Total	30	29	

<i>Department of Mathematics</i>				<i>Class: I B.Sc. Physics/Statistics</i>				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/ week	CIA	Ext	Total
I	Allied	20U1MAC1	Allied Mathematics-I	5	6	25	75	100

Course Objectives

On completion of this course, the learner will

1. Be able to understand higher order differentiation and to know application of differential calculus.
2. Know the properties of definite integrals and methods of integration of higher powers of trigonometric functions.
3. Know the physical applications of derivatives of vectors especially the divergence and curl.
4. Have thorough knowledge of solving definite integrals and obtain a numerical solution.

Unit-I: (14 hrs)

Application of DeMoivre's Theorem : Expression for $\sin n\theta$, $\cos n\theta$ and $\tan n\theta$ – Expression for $\sin^n \theta$, $\cos^n \theta$ and $\sin^m \theta \cos^n \theta$ – Problems.

Unit-II: (22 hrs)

Differentiability – Chain rule – Differentiation of Inverse trigonometric functions – Differentiation by transformation – Differentiation of logarithmic functions – Differentiation of implicit functions – Higher derivatives – n^{th} derivatives of some standard functions – Leibnitz's rule – Problems.

Unit-III: (18 hrs)

Integration by parts – Reduction formula for $\int \sin^n x \, dx$, $\int \cos^n x \, dx$ and $\int \sin^m x \cos^n x \, dx$ (Problems only) – Evaluation of double and triple integrals.

Unit-IV: (18 hrs)

Vector differentiation – Vector differential operator – Gradient, Divergence and Curl and their simple properties – Directional Derivative and its maximum value – Solenoidal and Irrotational vectors (simple problems only) – Vector integration (Line Integrals only).

Unit-V: (18 hrs)

Numerical Integration – Trapezoidal rule – Simpson's 1/3 and 3/8 rules – Romberg's Method – Weddle's rule – Problems.

Text book

1. Allied Mathematics, Dr. S. Arumugam & Isaac. Vol I, New Gamma Publishing House, Palayamkottai. (2014) (For Unit I, III) (Part – III Chapter: 1(1.1, 1.2); Part – II Chapter 3(3.4-3.6))
2. Calculus, Dr. S. Arumugam & Isaac, New Gamma Publishing House, Palayamkottai. (2008) (For Unit II) (Chapter: 2(2.4 – 2.7, 2.10 – 2.12))
3. Allied Mathematics, Dr. S. Arumugam & Isaac. Vol II, New Gamma Publishing House, Palayamkottai. (2011) (For Unit IV) (Chapter: 1, 2)
4. Numerical Methods, P. Kandasamy, K. Thilagavathy, K. Gunavathi, S. Chand Publishers, 2008. (For Unit V) (Chapter: 9(9.7 – 9.15))

Books for Reference

1. Ancillary Mathematics, T.K Manikavasagampillai & Others Viswanathan printers and publishers Pvt. Ltd., Chennai.
2. Allied Mathematics, Volume II, P. Kandasamy, K. Thilagavathy, S. Chand& Company Pvt. Ltd.

Web Resources

1. <https://brilliant.org/wiki/expansions-of-certain-trigonometric-functions/#expanding-sintheta-costheta-tantheta-in-terms-of-theta-for-small-theta>
2. <https://www.math24.net/leibniz-formula/>
3. https://www.whitman.edu/mathematics/calculus_online/section08.02.html
4. <http://tutorial.math.lamar.edu/Classes/CalcIII/LineIntegralsVectorFields.aspx>
5. http://mathforcollege.com/nm/mws/gen/07_int/mws_gen_int_txt_gaussquadrature.pdf

Course Learning Outcomes

On the successful completion of the course, students will be able to

Number	Course Learning Outcome	Knowledge level
CLO 1	Apply DeMoivre's theorem to solve problems on powers of trigonometric functions.	Upto K2
CLO 2	Use the concept of differentiation to find derivatives of inverse trigonometric functions, implicit function and logarithmic functions.	Upto K3
CLO 3	Evaluate integrals using integration by parts and apply integration to compute double and triple integrals.	Upto K4
CLO 4	Use vector differentiation to evaluate gradient, divergence and curl of a vector point function and related identities and to evaluate line integrals using vector integration.	Upto K3
CLO 5	Use the concept of integration to solve numerical problems.	Upto K3

K1 - Remembering and recalling facts with specific answers

K2 - Basic understanding of facts and stating main ideas with general answers

K3 - Application oriented - Solving Problems

K4 - Examining, analyzing, presentation and make inferences with evidences

Mapping with Courses Learning Outcomes (CLOs)

CLO/ PO- PSO	PO					PSO						
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CLO 1	3	2	-	-	1	2	2	2	3	3	-	-
CLO 2	3	2	-	-	1	2	1	2	3	3	-	-
CLO 3	3	2	-	-	1	2	1	2	3	3	-	-
CLO 4	3	2	-	-	1	2	1	2	3	3	-	-
CLO 5	3	2	-	-	1	2	1	2	3	3	-	-

3 – Advance Application

2 - Intermediate Level

1- Basic Level

Pedagogy

Lecture, Seminar, Quiz, Problem Solving, Tutorial, Group Discussion and Power point presentation.

BLUE PRINT – External Exam

S.No.	CLOs	K Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of questions	K Level	No. of questions	K level		
1	CLO 1	Up to K2	2	K1 &	1	K1	2(K2 & K2)	1(K2)
2	CLO 2	Up to K3	2	K1 &	1	K2	2(K2 & K2)	1(K3)
3	CLO 3	Up to K4	2	K1 &	1	K2	2(K4 & K4)	1(K4)
4	CLO 4	Up to K3	2	K1 &	1	K1	2(K3 & K3)	1(K3)
5	CLO 5	Up to K3	2	K1 &	1	K2	2(K3 & K3)	1(K3)
No. of Questions to be			10		5		10	5
No. of Questions to be			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each			10		10		25	30

K1 - Remembering and recalling facts with specific answers

K2 - Basic understanding of facts and stating main ideas with general answers

K3 - Application oriented - Solving Problems

K4 - Examining, analyzing, presentation and make inferences with evidences

Distribution of section wise marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	5	4	-	-	9	7.5	42%
K2	5	6	20	10	41	34.17	
K3	-	-	20	30	50	41.67	42%
K4	-	-	10	10	20	16.67	16%
Total marks	10	10	50	50	120	100	100%

BLUE PRINT – CIA – I

Sl.No	CLOs	K Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K Level	No. of Questions	K Level		
1	CLO 1	Up to K2	2	K1 & K1	1	K1	2 (K2 & K2)	1(K2)
2	CLO 2	Up to K3	2	K1 & K1	2	K2	2 (K3 & K3)	2(K3)
No. of Questions to be asked			4		3		4	3
No. of Questions to be answered			4		3		2	2
Marks for each question			1		2		5	10
Total Marks for each Section			4		6		10	20

Distribution of Section-wise Marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	4	2	-	-	6	10	50%
K2	-	4	10	10	24	40	
K3	-	-	10	20	30	50	50%
K4	-	-	-	-	-	-	-
Total marks	4	6	20	30	60	100	100%

BLUE PRINT – CIA – II

Sl. No	CLOs	K Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K-Level	No. of Questions	K-Level		
1	CLO 3	Up to K4	2	K1 & K2	1	K2	2(K2 & K2)	2(K2&K4)
2	CLO 4	Up to K3	2	K1 & K2	2	K1&K2	2(K3 & K3)	1(K3)
No. of Questions to be asked			4		3		4	3
No. of Questions to be answered			4		3		2	2
Marks for each question			1		2		5	10
Total Marks for each Section			4		6		10	20

Distribution of Section-wise Marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	2	2	-	-	4	6.67	50%
K2	2	4	10	10	26	43.33	
K3	-	-	10	10	20	33.33	33%
K4	-	-	-	10	10	16.67	17%
Total marks	4	6	20	30	60	100	100%

Lesson Plan

Unit	Description	Hours	Mode
I	Application of DeMoivre's Theorem: Expression for $\sin n\theta$, $\cos n\theta$ and $\tan n\theta$	7	14 Lecture, Quiz
	Expression for $\sin^n \theta$, $\cos^n \theta$ and $\sin^m \theta \cos^n \theta$	7	
II	Differentiability – Chain rule	2	22 Lecture, Quiz
	Differentiation of Inverse trigonometric functions	3	
	Differentiation by transformation	3	
	Differentiation of logarithmic functions – Differentiation of implicit functions	4	
	Higher derivatives – nth derivatives of some standard functions – Leibnitz's rule	10	
III	Integration by parts	4	18 PPT, Lecture
	Reduction formula for $\int \sin^n x \, dx$, $\int \cos^n x \, dx$ and $\int \sin^m x \cos^n x \, dx$ (Problems only)	6	
	Evaluation of double integrals	4	
	Evaluation of triple integrals	4	
IV	Vector differentiation – Vector differential operator	3	18 Lecture, Tutorial
	Gradient, Divergence and Curl and their simple properties	4	
	Directional Derivative and its maximum value	4	
	Solenoidal and Irrotational vectors (simple problems only)	3	
	Vector integration (Line Integrals only).	4	
V	Numerical Integration	2	18 PPT, Lecture
	Trapezoidal rule	3	
	Simpson's 1/3 and 3/8 rules	5	
	Romberg's Method	4	
	Weddle's rule	4	
Total Hours			90

Course Designers

1. Mrs. B. SEETHALAKSHMI, Assistant Professor, Department of Mathematics.
2. Mr. P. NATARAJ, Assistant Professor, Department of Mathematics.

<i>Department of Mathematics</i>				<i>Class: I B.Sc. Mathematics</i>				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/ week	CIA	Ext	Total
I	MCT 1	20U1MMC1	Calculus	3	5	25	75	100

Course Objectives:

1. To obtain the knowledge of differential calculus.
2. To gain knowledge about solving double and triple integration.
3. To acquire idea to solve integration using beta and gamma functions.

Unit-I:

p-r(Pedal) equation-Curvature – Radius of curvature in Cartesian and Polar coordinates-involutes– Evolutes, Envelope.

Unit-II:

Asymptotes – singular points- multiple points(node, cusp and conjugate points)-Tracing of curves-Folium of Descartes- cycloid-cardioid and Lemniscate of Bernoulli.

Unit-III:

Integration by parts-Bernoulli's formula - Reduction formulae – Problems.

Unit-IV:

Double integrals - Evaluation of double integral – Triple integrals – Change of variables.

Unit-V:

Definition – Properties of Beta and Gamma functions – Problems.

Text Book

1. S. Arumugam, Calculus, 2014, Edition, New Gamma Publishing House

Part I - Chapters:2(2.7,2.8), 3,4.

Part I - Chapters: 3(3.3-3.6, 3.10-3.13),

Book References:

1. T. K. ManicavachagomPillay, Differential Calculus, 2003 Edition, S. Viswanathan (Printers & Publishers) Pvt. Ltd.
2. T. K. ManicavachagomPillay, Integral Calculus 2000 Edition, S. Viswanathan (Printers & Publishers) Pvt. Ltd.

Web References:

1. <https://nptel.ac.in/courses/111/104/111104092/>
2. <http://www.freebookcentre.net/SpecialCat/Free-Mathematics-Books-Download.html>

Course Learning Outcomes

On the successful completion of the course, students will be able to

Number	Course Learning Outcome	Knowledge Level
CLO1	recall the basic concepts in differentiation and get the knowledge of p-r equation, Curvature, Radius of curvature, involutes, Evolutes, Envelope and apply it in problems	Upto K3
CLO2	Understand the idea of Asymptotes, Tracing of curves-Folium of Descartes-cycloid-cardioid and Lemniscate and its related problems	Upto K3
CLO3	Recall integration of by parts. Derive reduction formulae for trigonometric functions in integration process	Upto K3
CLO4	Use the knowledge of double and triple integrals for finding area and volume	Upto K4
CLO5	Acquire the information about beta, gamma function and evaluate it in various problems	Upto K3

K1- Recall, K2 – Understanding, K3 – Applying, K4- Examining

Mapping with Courses Learning Outcomes (CLOs)

	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CLO1	3	2	-	2	1	3	1	3	1	3	-	-
CLO2	2	1	-	-	2	3	2	3	1	3	-	-
CLO3	2	-	-	-	1	2	3	2	1	1	-	-
CLO4	2	1	-	1	2	3	3	3	3	2	1	-
CLO5	2	-	-	-	2	1	1	2	3	2	3	-

1. Basic level

2. Intermediate level

3. Advanced level

Pedagogy

Lecture, Seminar, Quiz, Problem Solving, Tutorial, Group Discussion and Power point presentation.

BLUE PRINT – External Exam
Mapping with Course Learning Outcomes (CLOs)

S. No.	CLOs	K-level	Section A		Section B		Section C	Section D
			MCQs		Short Answers			
			No. of Questions	K-Level	No. of Questions	K-Level	(Either/or Choice)	(Open Choice)
1	CLO 1	Up to K3	2	K1 & K2	1	K1	2(K2 & K2)	1(K3)
2	CLO 2	Up to K3	2	K1 & K2	1	K2	2(K3 & K3)	1(K3)
3	CLO 3	Up to K3	2	K1 & K2	1	K1	2(K1 & K1)	1(K2)
4	CLO 4	Up to K4	2	K1 & K2	1	K2	2(K4 & K4)	1(K4)
5	CLO 5	Up to K3	2	K1 & K2	1	K2	2(K3 & K3)	1(K3)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each Section			10		10		25	30

Distribution of Section-wise Marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	5	4	10	-	19	15.83	42%
K2	5	6	10	10	31	25.83	
K3	-		20	30	50	41.67	42%
K4	-		10	10	20	16.67	16%
Total marks	10	10	50	50	120	100	100%

BLUE PRINT – CIA – 1

S. No.	CLOs	K-level	Section A		Section B		Section C	Section D
			MCQs		Short Answers			
			No. of Questions	K-Level	No. of Questions	K-Level	(Either/or Choice)	(Open Choice)
1	CLO 1	Up to K3	2	K1 & K2	1	K1	2(K2 & K2)	1(K3)
2	CLO 2	Up to K3	2	K1 & K2	2	K2 & K2	2(K3 & K3)	2(K2&K3)
No. of Questions to be asked			4		3		4	3
No. of Questions to be answered			4		3		2	2
Marks for each question			1		2		5	10
Total Marks for each Section			4		6		10	20

Distribution of Section-wise Marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	2	2	-	-	4	6.67	50%
K2	2	4	10	10	26	43.33	
K3	-	-	10	20	30	50.00	50%
K4	-	-	-	-	-	-	-
Total marks	4	6	20	30	60	100	100%

BLUE PRINT – CIA -2

S. No.	CLOs	K-Level	Section A		Section B		Section C	Section D
			MCQs		Short Answers			
			No. of Questions	K-Level	No. of Questions	K-Level	(Either/or Choice)	(Open Choice)
1	CLO 3	Up to K3	2	K1 & K2	1	K2	2(K3 & K3)	2(K3&K2)
2	CLO 4	Up to K3	2	K1 & K2	2	K1&K2	2(K2 & K2)	1(K4)
No. of Questions to be asked			4		3		4	3
No. of Questions to be answered			4		3		2	2
Marks for each question			1		2		5	10
Total Marks for each Section			4		6		10	20

Distribution of Section-wise Marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	2	2	-	-	4	6.67	50%
K2	2	4	10	10	26	43.33	
K3	-	-	10	10	20	33.33	33.33%
K4	-	-	-	10	10	16.67	16.67%
Total marks	4	6	20	30	60	100	100%

Lesson Plan

S. No.	Unit	Description	Taking Hours	Total	Pedagogy
1.	I	p-r(Pedal) equation-e –and -,.	2	15	Lecture, Quiz,
		Curvature - Radius of curvature in Cartesian and Polar coordinate	5		Lecture, Problem Solving
		Involutes– Evolutes	3		Chalk and Talk, Group Discussion
		Envelope	5		
2.	II	Asymptotes --	3	15	Lecture, Group Discussion
		singular points- multiple points (node, cusp and conjugate points)	5		Lecture, Problem Solving
		Tracing of curves-Folium of Descartes	3		Lecture, Quiz
		cycloid-cardioid and Lemniscate of Bernoulli	4		Lecture
3.	III	Integration by parts- -- Problems.	2	15	Lecture, Seminar
		Bernoulli's formula- problems	2		Lecture, Quiz
		Reduction formulae – examples	4		Lecture
		Reduction formulae- problems	3		Chalk and Talk, Tutorial
4.	IV	Double integrals and its problems	2	15	Lecture, Quiz
		Evaluation of double integral and its examples	5		Lecture, Problem Solving
		Triple integrals and its problems	4		Lecture, Tutorial
		Evaluation of Change of variables.	4		Lecture
5.	V	Definition of Beta and Gamma functions – Problems	2	15	Lecture, Quiz
		Properties of Beta and its problems	3		Lecture
		Properties of Gamma functions and its examples	5		Lecture, Seminar
		Relation between beta and gamma function and its problems	5		Lecture, Tutorial.
		Total		75	

Course Designer: Dr. S. Usha, Assistant Professor, Department of Mathematics.

Department of Mathematics				Class: I B.Sc. Mathematics				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/ week	CIA	Ext	Total
I	Core	20U1MMC2	Classical Algebra And Trigonometry	2	4	25	75	100

Course Objectives:

1. To get information about nature of equations and nature and position of roots.
2. To acquire idea to find the roots polynomial and transcendental equations using different methods.
3. To obtain the knowledge of expression for trigonometric functions & hyperbolic functions.

Unit-I:

Formation of Equations-Equations with real coefficients, imaginary roots-Equations with rational coefficients irrational roots- Relation between roots and coefficients-sum of the power of the roots-Newton's theorem (without proof).

Unit-II:

Transformations of equations-Reciprocal equations – Form of the quotient and remainder when a polynomial is divided by a binomial – Removal of terms—Descartes' Rule of Signs - Rolles' theorem - multiple roots.

Unit-III:

Horner's method -Cardon's method- Trigonometrical Method –Solution of biquadratic equations by Ferrari's method.

Unit-IV:

Expansion for $\sin n\theta, \cos n\theta, \tan n\theta$ - Expansion for $\sin^n \theta, \cos^n \theta$ - Expansion for $\sin \theta, \cos \theta, \tan \theta$ in powers of θ

Unit-V:

Hyperbolic function – Relation between hyperbolic function and circular trigonometric functions – Inverse hyperbolic functions-Logarithm of a complex number

Text Books:

1. T. K. Manicavachagom Pillay, T. Natarajan, K.S. Ganapathy Algebra Vol. I, 2011 Edition, S. Viswanathan (Printers & Publishers) Pvt. Ltd.
Chapters: 6(6.1-6.11, 6.13, 6.14- 6.16, 6.18-6.19, 6.24- 6.26, 6.30, 6.34 &6.35).
2. S. Arumugam, Thangapandi Isaac, Trigonometry, 2012 Edition, New Gamma Publishing House.
Chapters: 1, 2, 3.

Reference Books:

1. M. K. Venkatraman, Manorama Sridhar, Classical Algebra & Trigonometry, 1st Edition 2002, The National Publishing Company.
2. T. K. Manicavachagom Pillai, Trigonometry, 1997 Edition, S. Viswanathan (Printers & Publishers) Pvt.Ltd.
3. T. Veerarajan, Algebra & Trigonometry, 2020 Edition, Yes Dee publishing Pvt. Ltd.

Web Resources:

1. <http://www.freebookcentre.net/maths-books-download/Lecture-Notes-on-Trigonometry.html>
2. <http://www.universityofcalicut.info/SDE/VI%20Sem.%20B.Sc%20Maths%20-%20Additional%20Course%20in%20lie%20of%20Project%20-Theory%20of%20equations%20&%20fuzzy%20set.pdf>

Pedagogy

Lecture, Seminar, Quiz, Problem Solving, Tutorial, Group Discussion, PPT.

Course Learning Outcomes

On the successful completion of the course. Students will be able to

Number	Course Learning outcome	Knowledge Level
CLO1	Find the roots from the relation between roots and coefficients of various equations.	Upto K3
CLO2	Determine the roots by studying the nature of equations, Solving Reciprocal equations and Transformations of equations.	Upto K3
CLO3	Solving the various types equation using different techniques, viz., diminishing the roots, transforming the equation to Quadratic equation.	Upto K4
CLO4	Expression for trigonometric functions of multiple of θ , powers of trigonometric functions and expansion of trigonometric functions in powers of θ .	Upto K3
CLO5	Find the relation between trigonometric functions, hyperbolic functions and inverse hyperbolic functions.	Upto K3

K1- Remembering and recalling facts with specific answers

K2 –Basic understanding of facts and stating main ideas with general answers

K3 –Application oriented – solving problems

K4- Examining, analyzing, presentation and make inference with evidences.

Mapping of Course Learning Outcomes (CLOs) with Program Outcomes & Program Specified Outcomes(PSOs)

CLOs/POs & PSOs	PO 1	PO 2	PO 3	PO 4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
	CLO1	3	2			2	3	2	3	1	1	3
CLO2	3	2			2	3	2	3	1	1	3	1
CLO3	3	2			2	3	2	3	1	1	3	1
CLO4	3	2			3	3	2	3	1	1	3	1
CLO5	3	2			3	3	2	3	1	1	3	1

1. Basic level

2. Intermediate level

3. Advance level

Blue Print

Mapping with Course Learning Outcomes (CLOs)

S. No.	CLOs	K-level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)	Total
			MCQs		Short Answers				
			No. of Questions	K-Level	No. of Questions	K-Level			
1	CLO 1	Up to K 3	2	K1 & K2	1	K1	2(K2 & K2)	1(K2)	
2	CLO 2	Up to K 3	2	K1 & K2	1	K2	2(K3 & K3)	1(K3)	
3	CLO 3	Up to K 4	2	K1 & K2	1	K2	2(K4 & K4)	1(K4)	
4	CLO 4	Up to K 3	2	K1 & K2	1	K1	2(K1 & K1)	1(K3)	
5	CLO 5	Up to K 3	2	K1 & K2	1	K2	2(K3 & K3)	1(K3)	
No. of Questions to be asked			10		5		10	5	30
No. of Questions to be answered			10		5		5	3	23
Marks for each question			1		2		5	10	
Total Marks for each Section			10		10		25	30	75

K1- Remembering and recalling facts with specific answers

K2 – Basic understanding of facts and stating main ideas with general answers

K3 – Application oriented – solving problems

K4- Examining, analyzing, presentation and make inference with evidences.

Distribution of section wise marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	5	4	10	-	19	15.83	41.66%
K2	5	6	10	10	31	25.83	
K3	-	-	20	30	50	41.67	41.67%
K4	-	-	10	10	20	16.67	16.67%
Total marks	10	10	50	50	120	100	100%

Blue Print for CIA-I

S. No.	CLOs	K-level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)	Total
			MCQs		Short Answers				
			No. of Questions	K-Level	No. of Questions	K-Level			
1	CLO 1	Up to K 3	2	K1 & K2	1	K1	2(K2 & K2)	2(K2/K3)	
2	CLO 2	Up to K 3	2	K1 & K2	2	K2	2(K3 & K3)	1(K3)	
No. of Questions to be asked			4		3		4	3	14
No. of Questions to be answered			4		3		2	2	11
Marks for each question			1		2		5	10	
Total Marks for each Section			4		6		10	20	40

K1- Remembering and recalling facts with specific answers

K2 – Basic understanding of facts and stating main ideas with general answers

K3 – Application oriented – solving problems

K4- Examining, analyzing, presentation and make inference with evidences.

Distribution of section wise marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	2	2		-	4	6.67	50%
K2	2	4	10	10	26	43.33	
K3	-		10	20	30	50.00	50%
K4	-						
Total marks	4	6	20	30	60	100.00	100%

Blue Print for CIA-II

Mapping with Course Learning Outcomes (CLOs)

S. No.	CLOs	K-level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)	Total
			MCQs		Short Answers				
			No. of Questions	K- Level	No. of Questions	K-Level			
1	CLO 3	Up to K4	2	K1 & K2	1	K2	2(K4 &K4)	1(K4)	
2	CLO 4	Up to K3	2	K1 & K2	2	K1	2(K1 &K1)	2(K2/K3)	
No. of Questions to be asked			4		3		4	3	14
No. of Questions to be answered			4		3		2	2	11
Marks for each question			1		2		5	10	
Total Marks for each Section			4		6		10	20	40

K1- Remembering and recalling facts with specific answers

K2 – Basic understanding of facts and stating main ideas with general answers

K3 – Application oriented – solving problems

K4- Examining, analyzing, presentation and make inference with evidences.

Distribution of section wise marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	2	2	10	-	14	23.33	50%
K2	2	4		10	16	26.67	
K3	-			10	10	16.67	16.67%
K4	-		10	10	20	33.33	33.33%
Total marks	4	6	20	30	60	100.00	100%

Lesson Plan

Units	Description	Hours	Total Hours	Pedagogy
I	Formation of Equations	2	12	Lecture
	Equations with real coefficients, imaginary roots	2		Lecture
	Equations with rational coefficients irrational roots	2		Lecture
	Relation between roots and coefficients	2		Lecture
	sum of the power of the roots	2		Lecture
	Newton's theorem (without proof)	2		Lecture & Group Discussion
II	Transformations of equations	2	12	Lecture
	Reciprocal equations	2		Lecture & Seminar
	Form of the quotient and remainder when a polynomial is divided by a binomial	2		Lecture
	Removal of terms	1		Lecture
	Descartes' Rule of Signs	2		Lecture
	Rolles' theorem	1		Lecture & Seminar
multiple roots	2	Lecture & Group Discussion		
III	Horner's method	3	12	Lecture
	Cardon's method	3		Lecture
	Trigonometrical Method	3		Lecture
	Solution of biquadratic equations by Ferrari's method	3		Lecture & Group Discussion
IV	Expansion for $\sin n\theta, \cos n\theta, \tan n\theta$ - -	4	12	Lecture & Seminar
	Expansion for $\sin^n \theta, \cos^n \theta$	4		Lecture & Seminar
	Expansion for $\sin \theta, \cos \theta, \tan \theta$ in powers of θ	4		Lecture & Group Discussion
V	Hyperbolic functions	3	12	Lecture
	Relation between hyperbolic function and circular trigonometric functions	3		Lecture & Seminar
	Inverse hyperbolic functions	3		Lecture
	Logarithm of a complex number	3		Lecture & Group Discussion
Total			60	

Course Designer: Dr. U. Karthik Raja, Assistant professor, Department of Mathematics.

<i>Department of Mathematics</i>				<i>CLASS: I B.Sc. Physics/Statistics</i>				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/ week	CIA	Ext	Total
II	Allied	20U2MAC2	Allied mathematics-II	5	6	25	75	100

COURSE OBJECTIVES:

On completion of this course, the learner will

1. Know methods of solving differential equations of first order and higher order.
2. To understand the fundamental ideas of Partial differential equations.
3. Know application of Laplace transforms and method of solving ordinary differential equations using Laplace transforms.

Unit-I: (16 hrs)

Differential equation of first order and first degree – Variable-Separable – Homogeneous and Non-homogeneous differential equations – Exact Differential equations – Integrating factors-Problems.

Unit-II: (16 hrs)

Introduction – Linear equation with constant coefficients – Methods of finding complementary functions – Methods of finding particular integrals – Problems.

Unit-III: (20 hrs)

Formation of partial differential equations – Classification of solution of PDE – Solutions of standard types of first order partial differential equations (Types 1-4) – Lagrange’s linear equation -Problems.

Unit-IV: (18 hrs)

Laplace transforms – Inverse Laplace transforms – solution of differential equations using Laplace transforms - Problems.

Unit-V: (20 hrs)

Finite differences – Newton’s forward and backward formula –Lagrange’s formula – Problems.

Text Book:

1. Allied Mathematics by Dr.S.Arumugam&Issac. Vol III, New Gamma Publishing House,Palayamkottai. (2012) (For UNIT – I – IV) (Chapter1(1.1-1.4),2,3,4(4.1-4.4)).
2. Allied Mathematics by Dr.S.Arumugam&Issac. Vol II, New Gamma Publishing House,Palayamkottai. (2011) (For UNIT-V) (Chapter 7).

Books for Reference:

1. Ancillary Mathematics, Volume I, T.K Manikavasagampillai& Others, Viswanathan Printers and Publishers Pvt Ltd.Chennai.
2. Allied Mathematics, Volume II, P.Kandasamy, K.Thilagavathy, S.Chand& Company Pvt. Ltd.

Web References:

1. <https://www.math24.net/exact-differential-equations/>
2. <https://www.math24.net/higher-order-linear-homogeneous-differential-equations-constant-coefficients/>
3. https://www.brainkart.com/article/Lagrange---s-Linear-Equation_6488/
4. <https://lpsa.swarthmore.edu/LaplaceXform/FwdLaplace/LaplaceProps.html>
5. <https://www.geeksforgeeks.org/newton-forward-backward-interpolation/>

Pedagogy: Lecture, Seminar, Quiz, Problem Solving, Tutorial, Group Discussion, PPT.

Course Learning Outcomes

On the successful completion of the course, students will be able to

Number	Course Learning Outcome	Knowledge level
CLO1	Solve first order differential equations utilizing the standard techniques for separable, exact, linear, homogeneous and non-homogeneous differential equation.	Up to K3
CLO2	Solve 2nd and higher order differential equations with constant coefficients	Up to K3
CLO3	Construct partial differential equations and to solve first order partial differential equations	Up to K4
CLO4	Solve Laplace transform and inverse transform of simple functions and application to differential equations with constant coefficients.	Up to K3
CLO5	Apply various interpolation methods and finite difference concepts.	Up to K3

K1 - Remembering and recalling facts with specific answers

K2 - Basic understanding of facts and stating main ideas with general answers

K3 - Application oriented - Solving Problems

K4 - Examining, analyzing, presentation and make inferences with evidences

Mapping with Courses Learning Outcomes (CLOs)

CLO/ PO- PSO	PO					PSO						
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CLO 1	3	2	-	-	1	2	1	2	3	3	-	-
CLO 2	3	2	-	-	1	2	1	2	3	3	-	-
CLO 3	3	2	-	-	1	2	1	2	3	3	-	-
CLO 4	3	2	-	-	1	2	1	2	3	3	-	-
CLO 5	3	2	-	-	1	2	1	2	3	3	-	-

3 - Advanced Application 2 - Intermediate Level

1- Basic Level

BLUE PRINT - External Exam

Sl. No	CLO s	K Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K Level	No. of Questions	K Level		
1	CLO 1	Up to K3	2	K1& K2	1	K1	2(K2& K2)	1(K3)
2	CLO 2	Up to K3	2	K1& K2	1	K2	2(K3& K3)	1(K3)
3	CLO 3	Up to K4	2	K1& K2	1	K2	2(K4 & K4)	1(K4)
4	CLO 4	Up to K3	2	K1& K2	1	K2	2(K2& K2)	1(K3)
5	CLO 5	Up to K3	2	K1& K2	1	K1	2(K2& K2)	1(K3)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each Section			10		10		25	30

K1 - Remembering and recalling facts with specific answers

K2 - Basic understanding of facts and stating main ideas with general answers

K3 - Application oriented - Solving Problems

K4 - Examining, analyzing, presentation and make inferences with evidences

Distribution of section wise marks with K levels

K Levels	Section A (No choice)	Section B (No Choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	5	4	-	-	9	7.5	42 %
K2	5	6	30	-	41	34.17	
K3	-	-	10	40	50	41.67	42%
K4	-	-	10	10	20	16.67	16%
Total marks	10	10	50	50	120	100	100%

BLUE PRINT – CIA – I

Sl. No.	CLOs	K level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K Level	No. of Questions	K Level		
1	CLO 1	Up to K3	2	K1 & K2	1	K1	2 (K2 & K2)	1(K3)
2	CLO 2	Up to K3	2	K1 & K2	2	K2 & K2	2 (K2 & K2)	2(K3& K3)
No. of Questions to be asked			4		3		4	3
No. of Questions to be answered			4		3		2	2
Marks for each question			1		2		5	10
Total Marks for each Section			4		6		10	20

Distribution of Section-wise Marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	2	2	-	-	4	6.67	50%
K2	2	4	20	-	26	43.33	
K3	-	-	-	30	30	50	50%
K4	-	-	-	-	-	-	-
Total marks	4	6	20	30	60	100	100%

BLUE PRINT – CIA – II

S. No.	CLOs	K level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K-Level	No. of Questions	K- Level		
1	CLO 3	Up to K4	2	K1 & K2	1	K2	2(K2 & K2)	2(K3 & K4)
2	CLO 4	Up to K3	2	K1 & K2	2	K1 & K2	2(K2 & K2)	1(K3)
No. of Questions to be asked			4		3		4	3
No. of Questions to be answered			4		3		2	2
Marks for each question			1		2		5	10
Total Marks for each Section			4		6		10	20

Distribution of Section-wise Marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	2	2	-	-	4	6.67	50%
K2	2	4	20	-	26	43.33	
K3	-	-	-	20	20	33.33	33%
K4	-	-	-	10	10	16.67	17%
Total marks	4	6	20	30	60	100	100%

Lesson Plan

Unit	Description	Hours	Mode
I	Differential equation of first order and first degree: Variable – Separable	3	16 Lecture Problem Solving Problem Solving
	Homogeneous and Non-homogeneous differential equations	5	
	Exact Differential equations – Integrating factors.	8	
II	Introduction – Linear equation with constant coefficients : Methods of finding complementary functions	6	16 PPT, Tutorial PPT, Tutorial
	Methods of finding particular integrals	10	
III	Formation of partial differential equations	2	20 Lecture PPT, Group Discussion Problem Solving Problem Solving Lecture, Tutorial Lecture, Tutorial Problem Solving
	Classification of solution of PDE	2	
	Solutions of standard types of first order partial differential equations Type I	3	
	Solutions of standard types of first order partial differential equations Type II	3	
	Solutions of standard types of first order partial differential equations Type III	3	
	Solutions of standard types of first order partial differential equations Type IV	3	
	Lagrange's linear equation	4	
IV	Laplace transforms	4	18 PPT, Quiz, Lecture PPT, Quiz, Lecture Problem Solving
	Inverse Laplace transforms	6	
	Solution of differential equations using Laplace transforms	8	
V	Finite differences	6	20 Lecture Tutorial, Seminar Tutorial, Seminar
	Newton's forward and backward formula	8	
	Lagrange's formula	6	
Total Hours			90

Course Designers:

1. Mr. P. NATARAJ, Assistant Professor, Department of Mathematics.
2. Mrs. B. SEETHALAKSHMI, Assistant Professor, Department of Mathematics.

<i>Department of Mathematics</i>				<i>CLASS: I B.Sc. Mathematics</i>				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
II	Core	20U2MMC3	Analytical Geometry of Three Dimension and Vector Calculus	4	4	25	75	100

COURSE OBJECTIVES:

1. Acquire a knowledge of geometry of spheres, cone, cylinder in 3 Dimensional problems.
2. Apply analytical techniques in solving 3D problems.
3. Demonstrate an understanding in vector differentiation.
4. Knowledge of evaluating line and surface integrals by applying Green's, Gauss and Stoke's theorems.

Unit-I:

Equation of a Plane – passing through three points – coplanar - intercept form – Normal form - Angle between two planes – parallel planes – perpendicular planes – intersection of two planes - Angle bisectors of two planes

Unit-II:

Introduction -Equation of a sphere – centre radius form – general form – diameter form - Tangent line and tangent plane – tangent plane parallel to plane -tangent plane passes through a point- intersection of two spheres - Section of a sphere - orthogonal.

Unit-III:

Equation of a Cone - Right circular cone – Angle between line of intersection of cone and a plane - Cylinder - Right circular cylinder – circular cylinder.

Unit-IV:

Vector point function - Scalar point function - Derivative of a vector and derivative of a sum of vectors - Derivative of a product of a scalar and a vector point function - Derivative of a scalar product and vector product - The vector operator 'del' - Gradient of a scalar point function - Divergence of a vector - Curl of a vector - solenoidal and irrotational vectors - Laplacian operator.

Unit-V:

Line integrals - Surface integrals - Green's, Gauss and Stoke's theorems (without proof) - Problems.

Text Book:

1. S. Arumugam, A.Thangapandi Issac & Somasundaram, Analytical, Edition 20, Yes Dee Publishing Private Limited, Chennai.
Chapters:-10,12, 13(Analytical Geoemetry)
2. S. Arumugam &A.Thangapandi Issac, Analytical Geometry (3D) and Vector Calculus, Edition 2017, New Gamma Publishing House.

Part B (Vector Calculus) -Chapters: 5,6,7

Reference Books:

1. T. K. Manickavachagom Pillai and T. Natarajan, Analytical Geometry (3D), Edition 2011, S. Viswanathan (Printers & Publishers) Pvt. Ltd.
2. M. K.Venkataraman and Manorama Sridhar, Vector calculus and Fourier series, 2002 Edition, The National Publishing Company.

Web References:

1. <https://nptel.ac.in/courses/111/105/111105122/>
2. <https://www.maths.ox.ac.uk/study-here/undergraduate-study/practice-problems>
3. <http://www.freebookcentre.net/SpecialCat/Free-Mathematics-Books-Download.html>

Course Learning Outcomes

On the successful completion of the course, students will be able to

Number	Course Learning Outcome	Knowledge level
CLO1	Understand the basic concept of plane. Compute angles between two planes and bisectors of two planes. Understand the basic concept of sphere.	Upto K3
CLO2	Know the concept of sphere – Evaluate tangent line and tangent plane and section of sphere.	Upto K4
CLO3	Obtain the geometrical knowledge of cone and Cylinder. Determine equations of cone, right cone, cylinder and right circular cylinder.	Upto K3
CLO4	Acquire the idea of gradient, divergence, curl, solenoidal and irrotational of vectors. Use vector differentiation in solving problems	Upto K2
CLO5	Discuss about green's, Stoke's, Gauss Divergence theorem and apply it in solving various problems.	Upto K4

K1- Recall, K2 – Understanding, K3 – Applying, K4- analyzing, K5-Evaluating, K6-Creating

Mapping with Courses Learning Outcomes (CLOs)

	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CLO1	2	1	-	-	-	3	3	3	1	-	-	-
CLO2	1	2	-	-	1	3	3	3	3	1	2	1
CLO3	1	2	-	-	1	3	3	3	3	-	2	1
CLO4	3	-	-	1	-	3	2	3	2	1	-	1
CLO5	2	3	-	1	2	3	1	2	3	-	3	-

1. Basic level

2. Intermediate level

3. Advance Application

Pedagogy:

Lecture, Power point presentation, Group Discussion, Seminar, Quiz, Problem Solving and Tutorial.

BLUE PRINT – External Exam

S. No.	CLOs	K-level	Section A		Section B		Section C	Section D
			MCQs		Short Answers			
			No. of Questions	K-Level	No. of Questions	K-Level	(Either/or Choice)	(Open Choice)
1	CLO 1	Up to K3	2	K1 & K2	1	K1	2(K2 & K2)	1(K3)
2	CLO 2	Up to K3	2	K1 & K2	1	K2	2(K4 & K4)	1(K3)
3	CLO 3	Up to K3	2	K1 & K2	1	K2	2(K3 & K3)	1(K3)
4	CLO 4	Up to K2	2	K1 & K2	1	K1	2(K1 & K1)	1(K2)
5	CLO 5	Up to K4	2	K1 & K2	1	K2	2(K3 & K3)	1(K4)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each Section			10		10		25	30

Distribution of Section-wise Marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	5	4	10	-	19	15.83	42%
K2	5	6	10	10	31	25.83	
K3	-		20	30	50	41.67	42%
K4	-		10	10	20	16.67	16%
Total marks	10	10	50	50	120	100	100%

BLUE PRINT – CIA – 1

S. No.	CLOs	K-level	Section A		Section B		Section C	Section D
			MCQs		Short Answers			
			No. of Questions	K-Level	No. of Questions	K-Level	(Either/or Choice)	(Open Choice)
1	CLO 1	Up to K3	2	K1 & K2	1	K1	2(K2 & K2)	1(K3)
2	CLO 2	Up to K4	2	K1 & K2	2	K2 & K2	2(K3 & K3)	2(K2&K4)
No. of Questions to be asked			4		3		4	3
No. of Questions to be answered			4		3		2	2
Marks for each question			1		2		5	10
Total Marks for each Section			4		6		10	20

Distribution of Section-wise Marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	2	2	-	-	4	6.67	50%
K2	2	4	10	10	26	43.33	
K3	-	-	10	10	20	33.33	33.33%
K4	-	-	-	10	10	16.67	16.67%
Total marks	4	6	20	30	60	100	100%

BLUE PRINT – CIA -2

S. No.	CLOs	K-level	Section A		Section B		Section C	Section D
			MCQs		Short Answers			
			No. of Questions	K-Level	No. of Questions	K-Level	(Either/or Choice)	(Open Choice)
1	CLO 3	Up to K3	2	K1 & K2	1	K2	2(K3 & K3)	2(K3&K2)
2	CLO 4	Up to K3	2	K1 & K2	2	K1&K2	2(K2 & K2)	1(K3)
No. of Questions to be asked			4		3		4	3
No. of Questions to be answered			4		3		2	2
Marks for each question			1		2		5	10
Total Marks for each Section			4		6		10	20

Distribution of Section-wise Marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	2	2	-	-	4	6.67	50%
K2	2	4	10	10	26	43.33	
K3	-	-	10	20	30	50.00	50%
K4	-	-	-	-	-	-	-
Total marks	4	6	20	30	60	100	100%

Lesson Plan

S. No.	UNIT	DESCRIPTION	TAKING HOURS	TOTAL	Pedagogy
1.	I	Equation of a Plane and its problem	4	12	Lecture, Quiz
		Angle between two planes and examples	4		Lecture
		Angle bisectors of two planes and problems	4		Lecture ,Problem Solving
2.	II	Introduction to sphere	1	12	Lecture ,Group Discussion
		Equation of a sphere	3		Lecture ,Problem Solving
		Tangent line and tangent plane	4		Lecture, quiz
		Section of a sphere and its problems	4		Lecture, Tutorial
3.	III	Equation of a Cone	2	12	Lecture
		Cone with Vertex at the origin	2		Lecture, Quiz
		Right circular cone and it's problems	3		Lecture
		Equation of cylinder	2		Lecture ,Group Discussion
		Right circular cylinder and it's problems	3		Lecture ,Tutorial
4.	IV	Vector point function - Scalar point function - examples	1	12	Lecture ,Quiz
		Derivative of a vector and derivative of a sum of vectors	1		Lecture
		Derivative of a product of a scalar and a vector point function	1		Lecture
		Derivative of a scalar product and vector product	2		Lecture, ICT
		The vector operator 'del'	1		Lecture, Group discussion
		Gradient of a scalar point function	2		Lecture
		Divergence of a vector	1		Lecture
		Curl of a vector - solenoidal and irrotational vectors	1		Lecture, problem solving
		Laplacian operator.	2		Lecture
5.	V	Line integral and Surface integral	2	12	Lecture,Quiz
		Volume integral- example	2		Lecture, ICT
		Stokes Theorem, Gauss-divergence Theorem -problems	4		Lecture, Seminar
		Green's Theorem in two dimensions - Problems	4		Lecture ,Tutorial.
		Total		60	

Course Designer: Dr. I. Padmavathi, Assistant Professor of Mathematics

<i>DEPARTMENT OF MATHEMATICS</i>				<i>CLASS: I B.Sc. Mathematics</i>				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
II	Core	20U2MMC4	Discrete Mathematics	4	5	25	75	100

COURSE OBJECTIVES:

1. To provide the students with an overview of Discrete Mathematics.
2. To learn about topics such as logic and proofs, sets and functions, recurrence relations, generating functions.
3. To give clear idea about matrix theory.

Unit-I: (SET THEORY AND MATHEMATICAL INDUCTION)

Sets – Subsets-Operation on sets–Union, intersection, symmetric difference, Cartesian product - Properties of Set Operations-Principle of Duality-Mathematical Induction.

Unit-II: (RELATIONS AND FUNCTIONS)

Relations- Representation of relation - Operation on relation- equivalence relation- Partitions and equivalence Classes- Functions - One to One and Onto Functions- Special type of functions - Invertible functions- Composition of Functions.

Unit-III: (MATHEMATICAL LOGIC)

Statements- Connectives –Wellformed formula- Truth table of a formula- Tautology- Implication and equivalence of formulae-Normal forms.

Unit-IV: (RECURRENCE RELATIONS AND GENERATING FUNCTIONS)

Recurrence relations- Solution of first order homogenous linear relations- Solution of non-homogenous relations - Finding generating functions of a recurrence relation - solving recurrence relation using generating functions.

Unit-V: (MATRIX ALGEBRA)

Basic definitions - Symmetric and skew symmetric matrices - inverse of a matrix - Elementary transformations - Rank - Test of consistency - Solving linear equations - Cayley - Hamilton theorem and the uses to find inverse and powers of the matrix - Eigen values and eigen vectors.

Text Book:

1. M.K.Venkatraman, N.Sridharan and N.Chandrasekaran, Discrete Mathematics, The National Publishing Company (2007).
Sections:1.1, 1.2, 1.4, 1.6, 1.7, 1.9, 2.1 to 2.5, 2.7, 3.1 to 3.5, 4.2, 5.1, 5.3 to 5.6, 9.2, 9.3, 9.5 to 9.8, 9.11.
2. S. Arumugam and A.T. Issac, Modern Algebra, SCITECH Publications PVT Ltd.,(2011).
Sections: 7.3 to 7.8.

Books for Reference:

1. Trembly and Manohar, Discrete Mathematical structures with application to computer science, Tata McGraw Hill, New Delhi (1997).
2. Kenneth H. Rosen, “Discrete Mathematics and its Applications”, 7 th edition, Tata McGraw Hill, 2012.

Web Resources

1. <http://accounts.mmts.org.in/article-list.php?page=1&search=&sortby=>
2. https://www.tutorialspoint.com/discrete_mathematics/index.htm
3. <https://study.com/academy/course/math-108-discrete-mathematics.html>

Pedagogy: Lecture, power point Presentation, Group Discussion, Quiz, Seminar, Problem solving, Tutorial and LMS (CANVAS, FLICKERS).

Course Learning Outcome

On the successful completion of the course, students will be able to

Number	Course Learning Outcome	Knowledge level
CLO1	Determine union, intersection, symmetric difference and Cartesian product of sets and also apply the principle of Mathematical induction to prove certain mathematical formula.	Up to K3
CLO2	Recognize equivalence relations and to categorize types of functions.	Up to K4
CLO3	Analyze the validity of a formula using mathematical logic and also to find normal forms of a formula.	Up to K4
CLO4	Construct and solve recurrence relations using generating functions.	Up to K3
CLO5	Classify types of matrices and also to solve linear equations by applying matrices.	Up to K3

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Mapping with Programme Specific Outcome

	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CLO1	3	1	1				2
CLO2	3	1				1	
CLO3	3	2	1		1	2	1
CLO4	3		2	1	1	2	
CLO5	3	2	2		1	2	1

Pedagogy

Chalk and Talk, PPT, group discussion, seminar, interaction, problem solving, quiz, tutorial and virtual labs & Learning management systems (CANVAS)

Mapping with Programme Outcome

	PO1	PO2	PO3	PO4	PO5
CLO1	3				
CLO2	2		2		
CLO3	2	1	3		
CLO4	2				
CLO5	1		2		1

3- Advanced Applications 2- Intermediate Level

1- Basic Level

BLUE PRINT (for external exams)

Sl. No	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO 1	Up to K3	2	K1&K2	1	K2	2 (K2&K2)	1(K2)
2	CLO 2	Up to K4	2	K1&K2	1	K2	2 (K3&K3)	1(K3)
3	CLO 3	Up to K4	2	K1&K2	1	K2	2 (K2&K2)	1(K4)
4	CLO 4	Up to K3	2	K1&K2	1	K2	2 (K3&K3)	1(K2)
5	CLO 5	Up to K3	2	K1&K2	1	K2	2 (K4&K4)	1(K3)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each section			10		10		25	30

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	5	-	-	-	05	4	50%
K2	5	10	20	20	55	46	
K3	-	-	20	20	40	33.33	33.33%
K4	-	-	10	10	20	16.67	16%
Total marks	10	10	50	50	120	100	100%

Blue Print for CIA – I

Sl. No	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO 1	Up to K3	2	K1& K2	1	K1& K2	2 (K2&K3)	1(K2) 1(K3)
2	CLO 2	Up to K4	2	K1& K2	2	K1& K2	2 (K2&K3)	1(K4)
No. of Questions to be asked			4		3		4	3
No. of Questions to be answered			4		3		2	2
Marks for each question			1		2		5	10
Total Marks for each section			4		6		10	20

- K1- Remembering and recalling facts with specific answers
 K2- Basic understanding of facts and stating main ideas with general answers
 K3- Application oriented- Solving Problems
 K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	2	2	-	-	4	6.67	50%
K2	2	4	10	10	26	43.33	
K3	-	-	10	10	20	33.33	33%
K4	-	-	-	10	10	16.67	17%-
Total marks	4	6	20	30	60	100	100%

Blue Print for CIA – II

Sl. No	CLOs	K- Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO3	Up to K4	2	K1& K2	2	K1& K2	2 (K2&K3)	1(K4)
2	CLO 4	Up to K3	2	K1& K2	1	K1& K2	2 (K2&K3)	1(K2) 1(K3)
No. of Questions to be asked			4		3		4	3
No. of Questions to be answered			4		3		2	2
Marks for each question			1		2		5	10
Total Marks for each section			4		6		10	20

K1- Remembering and recalling facts with specific answers

K2- Basic understanding of facts and stating main ideas with general answers

K3- Application oriented- Solving Problems

K4- Examining, analyzing, presentation and make inferences with evidences

Distribution of Section-wise Marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	2	2	-	-	4	6.67	50%
K2	2	4	10	10	26	43.33	
K3	-	-	10	10	20	33.33	33%
K4	-	-	-	10	10	16.67	17%-
Total marks	4	6	20	30	60	100	100%

Lesson Plan

Unit	Description	Contact Hours	Total	Pedagogy
I	Introduction to sets subsets	1	15	ICT tools
	Operation on sets – union & intersection	3		Lecture
	Symmetric difference, Cartesian product	4		Lecture
	Principle of Duality	3		Lecture
	Mathematical Induction.	3		Lecture
	Tutorial	1		LMS(CANVAS)
II	Introduction to relations	1	15	Lecture
	Representation of relation	1		Lecture
	Operations on relations	2		Lecture
	Equivalence relation and equivalence classes	3		Lecture
	Introduction to Functions	1		Lecture
	Types of functions - One to One and Onto Functions	3		Lecture
	Invertible functions	1		Lecture
	Composition of Functions	2		Lecture
	Tutorial	1		QUIZ through FLICKERS
III	Statements	2	15	ICT tools
	Connectives	2		Lecture
	Well formed formula	1		Lecture
	Truth table of a formula	2		Lecture
	Tautology	2		Lecture
	Implication and equivalence of formulae	2		ICT Tools
	Normal forms	3		Lecture
	Tutorial	1		QUIZ through the LMS QUIZIZ
IV	Introduction to Recurrence relations	1	15	Lecture
	Solution of first order homogenous linear relations	4		Lecture
	Solution of non-homogenous relations	3		Lecture
	Finding generating functions of a recurrence relation	3		Lecture
	solving recurrence relation using generating functions	3		Lecture
	Introduction to Recurrence relations	1		Lecture
	Tutorial			Group Discussion
V	Basic definitions in matrix theory	1	15	Lecture
	Symmetric and skew symmetric matrices	2		Lecture
	Inverse of a matrix	1		Lecture
	Elementary transformations	1		Lecture
	Rank of a matrix	1		Lecture
	Test of consistency-Solving linear equations	2		ICT Tools
	Cayley - Hamilton theorem and the uses to find inverse and powers of the matrix	2		Lecture
	Eigen values and eigen vectors.	4		Lecture
	Tutorial	1		LMS –CANVAS
Total hours			75	

Course Designer

Dr. I. SAHUL HAMID, Assistant Professor, Department of Mathematics

DEPARTMENT OF MATHEMATICS
THE MADURA COLLEGE (AUTONOMOUS), MADURAI-11.

CERTIFICATE COURSE ON VISUAL BASIC PROGRAMMING

DESCRIPTION:

Visual Basic is a third generation even – driven programming language first released by Microsoft in 1991. It evolved from the earlier Dos Version called BASIC. Since then Microsoft has released many versions of VISUAL BASIC and the final version is VISUAL BASIC 6.0. Visual Basic is the most widely used programming language for exacting Window applications. It is easy to learn as it does not require the user to memorize difficult commands like other languages. Visual Basic environment enable the user to create the application program and its components literally by clicking the mouse button for selection the menu items. Visual Basic make user GUI (Graphical User Interface) for creating powerful applications. GUI environment enable the user to interact with the sysem in a simpler and easier way. The object of the course is to develop a look and feel application programs using IDE (Integrated development Environment) and to develop data base programming.

CERTIFICATE COURSE ON DECISION MAKING AND INVESTMENT ANALYSIS

DESCRIPTION:

Visual Basic is a third generation even – driven programming language first released by Microsoft in 1991. It evolved from the earlier Dos Version called BASIC. Since then Microsoft has released many versions of VISUAL BASIC and the final version is VISUAL BASIC 6.0. Visual Basic is the most widely used programming language for exacting Window applications. It is easy to learn as it does not require the user to memorize difficult commands like other languages. Visual Basic environment enable the user to create the application program and its components literally by clicking the mouse button for selection the menu items. Visual Basic make user GUI (Graphical User Interface) for creating powerful applications. GUI environment enable the user to interact with the sysem in a simpler and easier way. The object of the course is to develop a look and feel application programs using IDE (Integrated development Environment) and to develop data base programming.

CERTIFICATE COURSE on LaTeX

DESCRIPTION:

This course explores a new way of writing and typesetting documents, articles, books, papers, thesis, presentation etc., using a document preparation system called $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$. LaTeX is widely used throughout the sciences and is available, free of charge, for almost any computer. Because of its popularity, every year a new batch of students and researchers wants to pick up the rudiments of LaTeX. It contains provisions for automatic running heads, sectioning, tables of contents, cross-referencing, equation numbering, floating tables and figures. This course provides students with an introduction to basic typesetting, inserting tables, enumerated lists, typesetting mathematical formulas, complicated matrices structures, including graphics, inserting pictures, diagrams, making a bibliography in LaTeX and presentation using beamer.

<i>DEPARTMENT OF MATHEMATICS</i>			<i>Certificate Course</i>				
Course Type	Course Code	Course Code Course Title	Credits	Total Contact Hours	CIA	Ext	Total
Value Added Course		Certificate Course on Visual Basic Programming	2	30			

LEARNING OBJECTIVES:

- To enable the students to familiarize with GUI environment.
- To make them understand VISUAL BASIC PROGRAMMING.
- To impact knowledge of how to develop data Base Programming.

LEARNING OUTCOMES:

- In terms of knowledge, improves the ability to develop effective coding using VB.
- In terms skills, use the language VB to construct database programming.

UNIT – I:

Introduction – Visual Programming Environment, IDE (Integrated Development Environment) – Menu bar – Tool bar – Project Explorer – Property Window – Form layout window – Tool box – Forms designer – Object browser.

UNIT – II:

The language –Variables, Data types, Modules, Control Structures, If – Then statement, If- then –else statement, select – case statement, do – while loop, do – loop - while, do – loop – until, While – Wend statements.

UNIT – III:

Event driven Programming – Mouse events – keyboard events, Procedures – Sub-Procedures – Event Procedures – Function procedures.

UNIT – IV:

Menu driven Programming – Menu Editor – Dialog Boxes – Predefined dialog box – custom box – Common dialog control.

UNIT – V:

Graphics and Database programming - Graphical controls – Graphics methods, Database Programming using Data control, using codes.

REFERENCE BOOKS:

Mastering Visual Basic 6 by EvangelosPetrautsos, BPB Publications (1998).
Visual Basic 6 by Meerach’s Series, Reprint 2002, BPB Publications.

<i>DEPARTMENT OF MATHEMATICS</i>			<i>Certificate Course</i>				
Course Type	Course Code	Course Code Course Title	Credits	Total Contact Hours	CIA	Ext	Total
Value Added Course		Certificate Course on Decision Making and Investment Analysis	2	30			

LEARNING OBJECTIVES:

- To enable the students to understand the basic concept of decision marking.
- To learn the different optimization techniques to solve decision oriented problems. .
- To develop knowledge and understand theory in practical application of decision making areas.

LEARNING OUTCOMES:

- In term of knowledge, demonstrate their understanding of optimization techniques for decision making problemsclearly.
- In terms of skills, understanding situation and solve the problems.

UNIT - I:

Introduction - Steps in decision theory approach - Decision making under conditions of certainty and uncertainty maximax- maximin - minimax regret - Hurwicz criterions - Laplace criterion.

UNIT - II:

Decision making under conditions of Risk - Expected value criterion – Opportunity loss criterion - Expected value perfect information.

UNIT - III:

Introduction - Two person zero-sum games - Some basic terms-The maximin - minimax principle games without saddle point - mixed strategies.

UNIT - IV:

Graphical solution of 2 x n and m x 2 games - Dominance property - Arithmetic method of n x n games.

UNIT - V:

Introduction - methods of Investment analysis - Break-even analysis – payback period method - Average Rate of Return method.

TEXT BOOK:

Problems in Operations Research by Prem Kumar Gupta ,Dr.D.S. Hira , S. Chand - Company Limited (Reprint 2003).

<i>DEPARTMENT OF MATHEMATICS</i>			<i>Certificate Course</i>				
Course Type	Course Code	Course Code Course Title	Credits	Total Contact Hours	CIA	Ext	Total
Value Added Course		Certificate Course on LaTeX	2	30			

LEARNING OBJECTIVES:

- To enable the students to understand LaTeX -a document preparation system.
- To learn the complicated Mathematical typesetting with Latex.
- To create tables, figures, diagrams using graphical packages.
- To build bibliographic and cross reference to citations.

LEARNING OUTCOMES:

- Ability to develop the documents which include mathematical formulae, tables, figures, bibliographic and cross reference using LaTeX.
- Ability to make a presentation using beamer.

UNIT - 1:

Introduction to LaTeX – preparing an Input file – Running LaTeX – Resources.

UNIT – 2:

Sample document and Key Concepts – Type Style – Environments: Lists, Centering, Tables, Verbatim – Vertical and Horizontal spacing.

UNIT – 3:

Examples – Equation Environments – Fonts, hats and underling – Braces – Arrays and Matrices – Customized Commands – Theorem-like Environments – Math Miscellany: maths styles, bold math, symbols for number sets, binomial coefficient.

UNIT – 4:

Document Classes and Overall Structure – Titles for Documents – Sectioning Commands – Miscellaneous Extras: spacing, accented character, dashes and hyphens, quotation marks – Troubleshooting: pinpointing the error, common errors, warning messages.

UNIT – 5:

Packages – Inputting Files – Inputting Pictures – Making a Bibliography – Making an Index – Making presentation using beamer - Sample Article, Report and presentation.

REFERENCE BOOKS:

Learning LaTeX by David F. Griffiths and Desmond J. Higgam, SIAM

A Document Preparation System LaTeX by Leslie Lamport, Addison-Wesley, second Edition, 2009.

Department of Statistics

**Revised Curriculum
(Choice Based Credit system with Outcome Based Education)
Academic Year 2020-2021 onwards**



THE MADURA COLLEGE (AUTONOMOUS), MADURAI-11
DEPARTMENT OF STATISTICS

VISSION

Vision of the Statistics department is to develop students ability to think analytically, speculatively and imaginatively and to encourage them to pursue higher education for the purpose of continuous curriculum innovations.

MISSION

- To help students develop their intellect and faith.
- To provide excellent training in scientific data collections, data management, methods and procedure of data analysis.
- To facilitate students to see themselves as professional, as part of a discipline with skills and abilities valuable in Business and teaching.

PROGRAMME OUTCOMES FOR B.Sc. GRADUATES:

At the end of the program the graduates will be able to

- PO1:** Integrate learned skills and knowledge derived from the study of the science and other Related disciplines, acquiring the necessary depth and breadth required for a disciplinary perspective.
- PO2:** Demonstrate proficiency in using disciplinary-appropriate methods for research, critical analysis or creative work and provide scientific solutions to the problems of the society.
- PO3:** Communicate conclusions, interpretations, and implications clearly, concisely, and effectively, both orally and in writing for different types of audiences.
- PO4:** Articulate and apply values, principles, ethics and ideals derived from an integrated understanding of their areas of study and demonstrate awareness of current societal and environmental challenges and ways of mitigating them.
- PO5:** Use modern tools, resources and software and be abreast with the emerging trends in their disciplinary area and practice lifelong learning.

PROGRAM EDUCATIONAL OBJECTIVES

After completion of the course the students will

- PEO1:** Assess the existing knowledge, concepts, techniques, and methodology appropriate to their discipline.
- PEO2:** Acquire thorough knowledge on pure, applied and advanced area of Statistics.
- PEO3:** Apply discipline-based and/or cross-discipline-based knowledge to design a problem solving strategy.
- PEO4:** Posses positive attitude, skills which will enable them to become a multifaced personality in their field.
- PEO5:** Have enhances logical reasoning skills, arithmetic skills, aptitude skills, self-confidence for better employability.
- PEO6:** Be aware of issues of social relevance and articulate a statistical solutions to those issues.

GRADUATE ATTRIBUTES

- a. Knowledge in core Competency
- b. Problem Analysis
- c. Design and development of solution for complex problems
- d. Conduct investigation of solution for complex problems
- e. Modern tool usage
- f. Environment and sustainability
- g. Ethics
- h. Individual and team work
- i. Communication
- j. Project management and finance
- k. Life-long learning

S. No.	Program Specific Outcomes	Graduate Attributes
PSO-1	Calculate the statistics necessary to solve problems (both manually and via computer), including descriptive statistics, statistical significance tests and confidence interval.	a,b,c,e
PSO-2	Communicate the meaning of statistical analysis in everyday language and project format.	b,c,e,g,h,
PSO-3	Evaluate probabilities for real-life situations and analyze discrete and continuous probability distributions and their applications.	a,b,c,g,k
PSO-4	Organize a sample survey and estimate the characteristics of the population and construct a hypothesis and test it using parametric and non-parametric tools.	d,e,g,k
PSO-5	Understanding of the fundamental axioms in Mathematics and capability of developing ideas based on them.	a,b,k
PSO-6	Have a broad background in statistics appreciations of how its various sub disciplines are related, the ability to use techniques from different areas and as in depth knowledge about topics.	a,b,c,e
PSO-7	Take up a career as a statistician in the government sector, quality control analyst, agricultural studies, a data analyst and other positions.	a,c,e,g,k
PSO-8	Apply ethical principles and commit to legal professional ethics, responsibilities, good practices and norms established.	g



THE MADURA COLLEGE (AUTONOMOUS), MADURAI – 625 011
DEPARTMENT OF STATISTICS

B.Sc. Statistics Major – Course Structure

Semester	Sub. Code	Title of the Paper	Hours	Credits
I		Language-I(Tamil/Hindi/Sanskrit)	6	3
		English -I	6	3
		VE and PE	3	3
		Ancillary Statistics-I	6	5
	20U1SMC1	Descriptive Statistics	5	3
	20U1SMC2	Probability Theory	4	2
	Total	30	19	
II		Language-II(Tamil/Hindi/Sanskrit)	6	3
		English-II	6	3
		EVS and Gender Studies	3	3
		Ancillary Statistics-II	6	5
	20U2SMC3	Probability Distributions	5	4
	20U2SMC4	Matrix Theory	4	4
		Extension	-	1
	Total	30	23	
III		Language-III(Tamil/Hindi/Sanskrit)	6	3
		English-III	6	3
		NME - I	2	2
		Skill Based Elective-I	2	2
		Ancillary Statistics-III	6	5
	20U3SMC5	Optimization Techniques	4	3
	20U3SMC6	Sampling Techniques	4	2
	Total	30	20	
IV		Language- IV(Tamil/Hindi/Sanskrit)	6	3
		English-IV	6	3
		Skill based Elective-II	2	2
		NME-II	2	2
		Ancillary Statistics-IV	6	5
	20U4SMC7	Statistical Estimation Theory	5	3
	20U4SMP1	Practical Statistics	3	2
	Total	30	20	
V		Skill based Elective-III	2	2
	20U5SMC8	Testing of Statistical Hypothesis	6	6
	20U5SMC9	Design of Experiments	6	6
	20U5SMC10	Real Analysis	6	6
		Major Elective I	6	5
		Major Elective II	4	4
	Total	30	29	
VI		Skill based Elective-IV	2	2
	20U6SMC11	Statistical Quality Control	6	6
	20U6SMC12	Stochastic Processes	6	6
	20U6SMC13	Applied Statistics	6	6
		Major Elective III	6	5
		Major Elective IV	4	4
	Total	30	29	

<i>Department of Statistics</i>				<i>CLASS: I B.Sc. Statistics</i>				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
I	Ancillary		Ancillary statistics - I	5	6	25	75	100

COURSE OBJECTIVES

- To acquire a good knowledge in fundamental concepts for theoretical and practical aspects of use of Statistics.
- To familiarize students with computational techniques and software used in the statistical area.
- To make the graduates capable of using their skills in interdisciplinary areas.

Unit-I

Introduction-Frequency distribution- Graphical representation of frequency distribution-Measures of Central Tendency - Mean, Median, Mode, Geometric Mean and Harmonic Mean.

Unit-II

Measures of dispersion: Range, Quartile Deviation, Mean Deviation and Standard Deviation-Coefficient of dispersion Coefficient of variation Moments Relation between moments about mean in terms of moments about any point Pearson's β and γ coefficients.

Unit-III

Skewness and Kurtosis Pearson's coefficient of skewness, Bowley's coefficient of skewness, coefficient of skewness based upon moments - Curve fitting, Principle of least squares - Fitting of Straight line, Second degree and exponential models.

Unit-IV

Simple correlation, Karl Pearson's coefficient of correlation, Rank correlation, Regression, lines of regression, properties of regression coefficients and problems.

Unit-V

Introduction to Probability: Basic Concepts of Probability, random experiments, trial, outcome, sample space, event, mutually exclusive and exhaustive events, equally likely and favorable outcomes. Mathematical, Statistical, axiomatic definitions of probability. Conditional Probability and independence of events.

Text books:

1. S. Arumugam and A. Thangapandi Isaac: Statistics (June 2015), New Gamma Publishing House Chapters 1-6,11.

References:

1. Gupta S.P. Statistical Method ,Fortieth Revised Edition, Sultan Chand and Sons, New Delhi.
2. M. JaganMohanRao and Papa Rao: A Text book of Statistics Paper-I.
3. Goon A.M, Gupta M.K., Das Gupta B. (1991): Fundamentals of Statistics, Vol. I, World Press, Calcutta.
4. Sanjay Arora and Bansilal: New Mathematical Statistics: Satya Prakashan , New Delhi

Web Resources:

1. <http://nptel.ac.in>
2. <https://www.khanacademy.org>
3. <http://onlinestatbook.com/2/introduction/descriptive.html>
4. <https://www.statisticshowto.datasciencecentral.com/probability-and-statistics/descriptive-Statistics/>

Pedagogy:

Lecture, Seminar, Quiz, Group Discussion and Power point presentation

Course Learning Outcomes

	Course Learning Outcomes	Knowledge Level
CLO-1	Identifies the need of Classification and Tabulation and explain different methods of data collection.	K3
CLO-2	Analysis statistical data using various measure of central tendency and dispersion and location.	K3
CLO-3	Evaluates and interprets the nature of skewness and kurtosis	K3
CLO-4	Construct and analysis graphical display to summarize data.	K4
CLO-5	Conceptualize the probabilities of events including frequentist and axiomatic approach. Simultaneously, they will learn the notion of conditional probability including the concept of Bayes' Theorem	K3

Mapping of Course Outcomes (COs) with Program Outcomes (PO) & Program Specified Outcomes (PSOs)

CLO/ PO-PSO	PO					PSO						
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CLO 1	3	2	-	1	-	2	2	2	3	3	-	-
CLO 2	3	2	-	1	-	2	1	2	3	3	-	-
CLO 3	3	2	-	1	-	2	1	2	3	3	-	-
CLO 4	3	2	-	1	-	2	1	2	3	3	-	-
CLO 5	3	2	-	1	-	2	1	2	3	3	-	-

3 - Advanced Application 2 - Intermediate Level

1- Basic Level

Blue Print

Units	CLOs	K. Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)	Total
			MCQs		Short Answers				
			No. of questions	K. Level	No. of questions	K. level			
1	CLO 1	Up to K2	2	(K1&K2)	1	K2	2(K2& K2)	1(K2)	
2	CLO 2	Up to K3	2	K1	1	K1	2(K2 & K3)	1(K2)	
3	CLO 3	Up to K3	2	K1	1	K1	2(K2& K3)	1(K3)	
4	CLO 4	Up to K4	2	(K1&K2)	1	K2	2(K3 & K4)	1(K4)	
5	CLO 5	Up to K3	2	K1	1	K2	2(K3 & K3)	1(K3)	
No. of Questions to be asked			10		5		10	5	30
No. of Questions to be answered			10		5		5	3	23
Marks for each question			1		2		5	10	
Total Marks for each Section			10		10		25	30	75

K1 - Remembering and recalling facts with specific answers

K2 - Basic understanding of facts and stating main ideas with general answers

K3 - Application oriented - Solving Problems

K4 - Examining, analyzing, presentation and make inferences with evidences

Distribution of section wise marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	8	4	-	-	12	10.00	50.00%
K2	2	6	20	20	48	40.00	
K3	-	-	25	20	45	37.50	37.50%
K4	-	-	5	10	15	12.50	12.50%
Total marks	10	10	50	50	120	100	100%

BLUE PRINT – CIA - I

S. No.	CLOs	K level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K Level	No. of Questions	K Level		
1	CLO 1	Up to K3	2	K1 & K2	1	K1	2(K2 & K2)	1(K3)
2	CLO 2	Up to K3	2	K1 & K2	2	K2 & K2	2(K3 & K3)	2(K3 & K3)
No. of Questions to be asked			4		3		4	3
No. of Questions to be answered			4		3		2	2
Marks for each question			1		2		5	10
Total Marks for each Section			4		6		10	20

Distribution of Section-wise Marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	2	2	-	-	4	6.67	33.33%
K2	2	4	10	-	16	26.67	
K3	-	-	10	30	40	66.67	66.67%
K4	-	-	-	-	-	-	-
Total marks	4	6	20	30	60	100	100%

BLUE PRINT – CIA – II

S. No.	CLOs	K level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K-Level		
1	CLO 3	Up to K3	2	K1 & K2	1	K2	2(K3 & K3)	2(K3 & K3)
2	CLO 4	Up to K4	2	K1 & K2	2	K1 & K2	2(K2 & K2)	1(K4)
No. of Questions to be asked			4		3		4	3
No. of Questions to be answered			4		3		2	2
Marks for each question			1		2		5	10
Total Marks for each Section			4		6		10	20

Distribution of Section-wise Marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	2	2	-	-	4	6.67	33.33%
K2	2	4	10	-	16	26.67	
K3	-	-	10	20	30	50.00	50.00%
K4	-	-	-	10	10	16.67	16.67%
Total marks	4	6	20	30	60	100	100%

LESSON PLAN

UNIT	Description	Staff handling	Hours	Mode	
I	Introduction- Frequency distribution- Graphical representation of frequency distribution		5	18	Lecture
	Measures of Central Tendency - Mean, Median		6		Tutorial
	Mode, Geometric Mean and Harmonic Mean.		7		Seminar
II	Measures of dispersion: Range, Quartile Deviation, Mean Deviation and Standard Deviation-		9	18	PPT
	Coefficient of dispersion Coefficient of variation		5		Lecture
	Moments Relation between moments about mean in terms of moments about any point Pearson's β and γ coefficients.		4		Problem solving
III	Skewness and Kurtosis Curve fitting		7	18	Lecture
	Pearson's coefficient of skewness Bowley's coefficient of skewness coefficient of skewness based upon moments		6		PPT
	Principle of least squares Fitting of Straight line, Second degree and exponential models		5		Lecture
IV	Simple correlation Karl Pearson's coefficient of correlation		6	18	Problem solving
	Rank correlation		5		Lecture
	Regression lines of regression properties of regression coefficients-problems.		7		Tutorial
V	Introduction to Probability: Basic Concepts of Probability		5	18	Seminar
	random experiments, trial, outcome, sample space, event, mutually exclusive and exhaustive events		7		PPT
	Equally likely and favorable outcomes. Mathematical, Statistical, axiomatic definitions of probability. Conditional Probability and independence of events.		6		Lecture
TOTAL				90	

Course Designer:

1. Mrs. N. Sriviveka Saratha, Assistant Professor, Department of Mathematics.
2. Dr. M. Thiagarajan, Assistant Professor, Department of Mathematics.

<i>DEPARTMENT OF STATISTICS</i>				<i>CLASS: I B.Sc. Statistics</i>				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
I	Core	20U1SMC1	Descriptive statistics	3	5	25	75	100

COURSE OBJECTIVES

- To analyze the given data and make them to solve simple real-life problems related to descriptive measures in statistics.
- To provide with pragmatic tools for assessing statistical claims and conducting their own statistical analyses.
- Recognize regression analysis applications for purpose of description and prediction

Unit-I

Introduction- Meaning and Scope-Frequency distribution-Graphic Representation of frequency distribution-Measures of Central Tendency: Mean, Median, Mode, Geometric mean and Harmonic mean.

Unit-II

Measures of Dispersion-Range- Quartiles, Deciles and Percentiles- Mean deviation and Standard deviation - Coefficient of Dispersion-Coefficient of variation.

Unit-III

Moments, Skewness and Kurtosis– Measures of Skewness – Measures of Kurtosis and their applications

Unit-IV

Curve fitting: Principle of Least squares – Linear, Nonlinear, Exponential and Growth curves.

Unit-V

Linear Correlation and Regression: Scatter diagram, Pearson’s coefficient of correlation, correlation in a bivariate table. Rank correlation – Regression equations – properties of regression coefficients

Text Book

1. Gupta S.C. and Kapoor V.K. (2002) Fundamentals of Mathematical Statistics, Sultan Chand and Sons, New Delhi.

Chapters: 2; 10 and 11

Books for Reference:

1. Goon A.M., Gupta M.K. and Das Gupta B. (1991) Fundamentals of Statistics, Vol.1, World Press, Calcutta.
2. Bhat B.R., Srivenkataramana T. and Madhava Rao K.S. (1996) Statistics A Beginner’s Text, Vol. I, New Age International, New Delhi.
3. Anderson T.W. and Sclove S.L. (1978) Introduction to Statistical Analysis of data, Houghton Mifflin, Boston.
4. Croxton F.E. and Cowden D.J. (1969) Applied General Statistics, Prentice Hall, New Delhi.

- Hogg, R.V., McKean, J.W. and Craig, A.T. (2013). Introduction to Mathematical Statistics, (Seventh Edition), Pearson Education Ltd.
- Spiegel, M.R., Schiller, J. and Srinivasan, R.A. (2012) Probability and Statistics, Schaum's Outline Series (Fourth Edition), McGraw- Hill Publishing Company, New Delhi.

Web Resources:

- <http://nptel.ac.in>
- <https://www.khanacademy.org>
- <http://onlinestatbook.com/2/introduction/descriptive.html>
- <https://www.statisticshowto.datasciencecentral.com/probability-and-statistics/descriptive-Statistics/>

Pedagogy:

Lecture, Seminar, Quiz, Group Discussion and Powerpoint presentation.

Course Learning Outcomes

CLO1	Identifies the need of Classification and Tabulation and explain different methods of data collection.	Up toK2
CLO2	Analysis statistical data using various measure of central tendency and dispersion and location.	Up toK3
CLO3	Evaluates and interprets the nature of skewness and kurtosis	Up toK3
CLO4	Construct and analysis graphical display to summarize data.	Up toK4
CLO5	Identify the direction and strength of a correlation between two factors and Recognize regression analysis applications for purpose of description and prediction	Up toK3

Mapping of Course Outcomes (COs) with Program Outcomes (PO) & Program Specified Outcomes(PSOs)

CLO/ PO-PSO	PO					PSO						
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CLO 1	3	2	-	-	1	2	2	2	3	1	-	-
CLO 2	3	2	-	-	1	2	1	2	3	1	-	-
CLO 3	3	2	-	-	1	2	1	2	3	1	-	-
CLO 4	3	2	-	-	1	2	1	2	3	1	-	-
CLO 5	3	2	-	-	1	2	1	2	3	1	-	-

3 - Advanced Application 2- Intermediate Level

1-Basic Level

Blue Print

Units	CLOs	K. Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)	Total
			MCQs		Short Answers				
			No. of questions	K. Level	No. of questions	K. level			
1	CLO 1	Up to K2	2	K1	1	K2	2 (K2& K2)	1(K2)	
2	CLO 2	Up to K2	2	(K1&K2)	1	K1	2 (K2 & K2)	1(K2)	
3	CLO 3	Up to K3	2	K1	1	K1	2 (K3& K3)	1(K3)	
4	CLO 4	Up to K4	2	(K1&K2)	1	K2	2 (K4& K4)	1(K4)	
5	CLO 5	Up to K3	2	(K1&K2)	1	K2	2 (K3 & K3)	1(K3)	
No. of Questions to be asked			10		5		10	5	30
No. of Questions to be answered			10		5		5	3	23
Marks for each question			1		2		5	10	
Total Marks for each Section			10		10		25	30	75

K1 - Remembering and recalling facts with specific answers

K2 - Basic understanding of facts and stating main ideas with general answers

K3 - Application oriented - Solving Problems

K4 - Examining, analyzing, presentation and make inferences with evidences

Distribution of section wise marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	7	4	-	-	11	09.17	50%
K2	3	6	20	20	49	40.83	
K3	-	-	20	20	40	33.33	33.33%
K4	-	-	10	10	20	16.67	16.67%
Total	10	10	50	50	120	100	100%

BLUE PRINT – CIA – I

S. No.	CLOs	K level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K Level	No. of Questions	K Level		
1	CLO 1	Up to K3	2	K1 & K2	1	K1	2(K2 & K2)	1(K3)
2	CLO 2	Up to K3	2	K1 & K2	2	K2 & K2	2(K3 & K3)	2(K3 & K3)
No. of Questions to be asked			4		3		4	3
No. of Questions to be answered			4		3		2	2
Marks for each question			1		2		5	10
Total Marks for each Section			4		6		10	20

Distribution of Section-wise Marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	2	2	-	-	4	6.67	33.33%
K2	2	4	10	-	16	26.67	
K3	-	-	10	30	40	66.67	66.67%
K4	-	-	-	-	-	-	-
Total	4	6	20	30	60	100	100%

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S. No.	CLOs	K level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K- Level	No. of Questions	K- Level		
1	CLO 3	Up to K3	2	K1 & K2	1	K2	2 (K3 & K3)	2(K3 & K3)
2	CLO 4	Up to K4	2	K1 & K2	2	K1 & K2	2 (K2 & K2)	1(K4)
No. of Questions to be asked			4		3		4	3
No. of Questions to be answered			4		3		2	2
Marks for each question			1		2		5	10
Total Marks for each Section			4		6		10	20

Distribution of Section-wise Marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	2	2	-	-	4	6.67	33.33%
K2	2	4	10	-	16	26.67	
K3	-	-	10	20	30	50.00	50.00%
K4	-	-	-	10	10	16.67	16.67%
Total marks	4	6	20	30	60	100	100%

LESSON PLAN

UNIT	Description	Staff handling	Hours	Mode	
I	Introduction- Meaning and Scope-Frequency distribution- Graphic Representation of frequency distribution		3	15	Lecture
	Measures of Central Tendency and Dispersion: Mean, Median		5		Tutorial
	Mode, Geometric mean and Harmonic mean.		7		Seminar
II	Measure of Dispersion-Range- Quartiles, Deciles and Percentiles		7	15	PPT
	Mean deviation and Standard deviation -Coefficient of Dispersion-Coefficient of variation.		8		Lecture
III	Moments, Moment about a point, Moment about mean, Effect of change of scale and origin, Correction for Moments.		3	15	Problem solving
	Measures of Skewness		7		Lecture
	Measures of Kurtosis and their applications		5		PPT
IV	Curve fitting: Principle of Least squares, Fitting of a straight line		6	15	Lecture
	Fitting of a Second degree Parabola		5		Problem solving
	Fitting of a polynomial of k^{th} degree		4		Lecture
V	Pearson's coefficient of correlation, correlation in a bivariate table		6	15	Tutorial
	Rank correlation – Regression equations		4		Seminar
	properties of regression coefficients		5		PPT
		Total	75		

Course Designer:

1. Dr. M. Thiagarajan, Assistant Professor, Department of Mathematics.
2. Mrs. N. Sriviveka Saratha, Assistant Professor, Department of Mathematics.

<i>Department of Statistics</i>				<i>Class: I B.Sc. Statistics</i>				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/ week	CIA	Ext	Total
I	Core	20U1SMC2	Probability theory	2	4	25	75	100

Course Objectives

- To introduce the concepts of random variables and distribution functions, expectation, conditional expectation and variance, generating functions, law of large numbers.
- To illustrate general properties of the expectation and variance operators.
- To incorporate advanced techniques in Probability theory for Statistical applications.

Unit-I

Probability: Sample space – Events – algebraic operations on events. Definitions – Classical Probability, Empirical Probability, Axiomatic approach to probability – Independent events – Conditional probability – Addition and Multiplication theorems of probability – Bayes's Theorem.

Unit-II

Discrete and continuous random variables – Distribution function-properties – Probability mass function and Probability density function.

Unit-III

Multiple Random Variables: Joint, marginal and conditional distributions- independence of random variables – Transformation of random variables (one and two dimensional) and determination of their distributions.

Unit-IV

Mathematical Expectation: Expectation – Properties, Cauchy-Schwartz inequality, conditional expectation and conditional variance – theorems on expectation and conditional expectation. Moment generating function, characteristic function, probability generating function and their properties. Chebychev's inequality.

Unit-V

Limit Theorems: Convergence in probability, weak law of large numbers – Bernoulli's theorem, Khintchine's theorem (Statements only) – Central limit theorem for i.i.d random variables-simple applications.

Text Book

1. Gupta, S.C. and Kapoor, V. K. (2002 Edition) Fundamentals of Mathematical Statistics, Sultan Chand & Sons, New Delhi.
Unit -I: Chapters 3 and 4 (3.8.1, 3.8.2, 3.8.5, 3.8.6, 3.9.1, 3.1., 3.11, 3.12, 3.13) ; 4(4.2)
Unit- II: Chapter 5 (5.1, 5.2, 5.3.1, 5.3.2, 5.4.1)
Unit -III: Chapter 5 (5.5.1, 5.5.3, 5.5.5, 5.6, 5.7))
Unit - IV: Chapters 6 and 7 (6.2,6.3,6.4,6.5,6.6,6.7,6.9): 7(7.1,7.3,7.5,7.9)
Unit -V: Chapters 7 and 9 (7.6, 7.7, 7.7.1,7.7.3,) 9(9.13,9.13.3)

Books for Reference:

1. Hogg, R.V. and Craig, A. G. (1978) Introduction to Mathematical Statistics, Mac Millan, London
2. Mood, A.M. Graybill, F.A. and Boes, D. C, (1974) Introduction to Theory of Statistics, Tata McGraw Hill, New Delhi.
3. Goon, A.M. Gupta, M.K. and Das Gupta, B. (1993) Fundamentals of Statistics Vol. I. World press, Kolkata.
4. Lipschutz, S. (2008) Probability Theory (Second Edition), Schaum's Outline Series, McGraw Hill, New York.
5. Bhat B. R, (2014), Modern Probability Theory (Fourth Edition), New Age International, New Delhi (Reprint 2015).
6. Feller, W. (2008), An Introduction to Probability Theory and Its Applications, Volume I (Third Edition), John Wiley & Sons, New York.
7. Hogg, R. V. Tannis, E and Zimmerman, D (2014) Probability and Statistical Inference, Pearson, New Delhi. State Integrated Board of Studies – Statistics UG

Web Resources:

1. <http://nptel.ac.in>
2. <https://nptel.ac.in/courses/111/105/111105090/>
3. <https://nptel.ac.in/courses/111/105/111105041/>

Pedagogy:

Lecture, Seminar, Quiz, Group Discussion, Power point presentation.

COURSE LEARNING OUTCOMES

CLO1	Identify from a probability scenario events that are simple, mutually exclusive, and independent and recognize multiplication rule for two independent events, the addition rule for union of two events	Up to K3
CLO2	Construct discrete and continuous random variables	Up to K4
CLO3	Describe the main properties of probability distribution and random variables.	Up to K3
CLO4	Apply general properties of the expectation and variance operators.	Up to K3
CLO5	Recognize situation in which the central limit theorem applies.	Up to K4

Mapping of Course Outcomes (COs) with Program Outcomes (PO) & Program Specified Outcomes (PSOs)

	PO					PSO							
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CLO1	2	1	-	-	2	3	3	3	3	1	3	3	3
CLO2	3	2	-	-	2	2	2	3	2	1	3	3	3
CLO3	2	1	-	-	3	1	1	3	1	2	1	2	2
CLO4	1	2	-	-	3	1	1	3	1	1	1	3	2
CLO5	1	3	-	-	2	1	1	3	1	1	1	2	2

3 - Advanced Application 2 - Intermediate Level

1- Basic Level

Blue Print – External

Units	CLOs	K. Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)	Total
			MCQs		Short Answers				
			No. of questions	K. Level	No. of questions	K. level			
1	CLO 1	Up to K3	2	K1	1	K2	2(K2 & K3)	1(K3)	6
2	CLO 2	Up to K4	2	K1	1	K1	2(K2 & K4)	1(K3)	6
3	CLO 3	Up to K3	2	K1	1	K1	2(K2 & K2)	1(K3)	6
4	CLO 4	Up to K3	2	K2	1	K2	2(K3 & K3)	1(K2)	6
5	CLO 5	Up to K4	2	K2	1	K2	2(K3 & K4)	1(K4)	6
No. of Questions to be asked			10		5		10	5	30
No. of Questions to be answered			10		5		5	3	23
Marks for each question			1		2		5	10	18
Total Marks for each Section			10		10		25	30	75

K1 - Remembering and recalling facts with specific answers

K2 - Basic understanding of facts and stating main ideas with general answers

K3 - Application oriented - Solving Problems

K4 - Examining, analyzing, presentation and make inferences with evidences

Distribution of section wise marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	6	4	-	-	10	08.33	42%
K2	4	6	20	10	40	33.33	
K3	-	-	20	30	50	41.66	42%
K4	-	-	10	10	20	16.66	16%
Total marks	10	10	50	50	120	100.00	100%

Blue Print – CIA – I

Sl. No	CLOs	K. Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)	Total
			MCQs		Short Answers				
			No. of questions	K. Level	No. of questions	K. level			
1	CLO 1	Up to K3	2	K1	1	K2	2(K1 & K2)	2(K3)	7
2	CLO 2	Up to K4	2	K1	2	K1	2(K2 & K3)	1(K4)	7
No. of Questions to be asked			4		3		4	3	14
No. of Questions to be answered			4		3		2	2	11
Marks for each question			1		2		5	10	
Total Marks for each Section			4		6		10	20	40

K1 - Remembering and recalling facts with specific answers

K2 - Basic understanding of facts and stating main ideas with general answers

K3 - Application oriented - Solving Problems

K4 - Examining, analyzing, presentation and make inferences with evidences.

Distribution of Section-wise Marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	4	4	5	-	13	21.66	42%
K2	-	2	10	-	12	20.00	
K3	-	-	5	20	25	41.66	42%
K4	-	-	-	10	10	16.66	16%
Total marks	4	6	20	30	60	100.00	100%

Blue Print – CIA – II

Sl. No	CLOs	K. Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)	Total
			MCQs		Short Answers				
			No. of questions	K. Level	No. of questions	K. level			
1	CLO 3	Up to K3	2	K1	2	K2	2 (K1 & K2)	2(K3)	7
2	CLO 4	Up to K3	2	K1	1	K1	2 (K3 & K3)	1(K2)	7
No. of Questions to be asked			4		4		3		4
No. of Questions to be answered			4		4		3		2
Marks for each question			1		1		2		5
Total Marks for each Section			4		4		6		10

K1 - Remembering and recalling facts with specific answers

K2 - Basic understanding of facts and stating main ideas with general answers

K3 - Application oriented - Solving Problems

K4 - Examining, analyzing, presentation and make inferences with evidences.

Distribution of Section-wise Marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	4	4	5	-	13	21.66	50%
K2	-	2	5	10	17	28.33	
K3	-	-	10	20	30	50.00	50%
K4	-	-	-	-	-	-	-
Total marks	4	6	20	30	60	100.00	100%

LESSON PLAN

UNIT	Description	Staff handling	Hours	Mode
I	Probability: Sample space – Events – algebraic operations on events. Definitions		3	Lecture
	Classical Probability, Empirical Probability, Axiomatic approach to probability		3	Lecture
	Classical Probability, Empirical Probability, Axiomatic approach to probability		4	Lecture / Group Discussion/PPT
	Bayes's Theorem.		2	Lecture/PPT
II	Discrete and continuous random variables		3	Lecture / Group Discussion/PPT
	Distribution function-properties		3	Lecture
	Probability mass function		3	Lecture/PPT
	Probability density function		3	Lecture
III	Multiple Random Variables: Joint, marginal and conditional distributions		3	Lecture
	Independence of random variables		3	Lecture
	Transformation of random variables (one and two dimensional)		3	Lecture /Group Discussion/PPT
	Determination of their distributions.		3	Lecture
IV	Mathematical Expectation: Expectation – Properties,		3	Lecture / Group Discussion/PPT
	Cauchy-Schwartz inequality, conditional expectation and conditional variance – theorems on expectation and conditional expectation.		3	Lecture
	Moment generating function, characteristic function, probability generating function and their properties.		3	Lecture
	Chebychev's inequality.		3	Lecture /Group Discussion/PPT
V	Limit Theorems: Convergence in probability, weak law of large numbers		4	Lecture
	Bernoulli's theorem, Khintchine's theorem (Statements only).		4	Lecture
	Central limit theorem for .i.d random variables- simple applications		4	Lecture
		Total	60	

Course Designer:

Mr. M. Meenakshisundaravenkatesan, Assistant Professor, Department of Mathematics

DEPARTMENT OF STATISTICS				CLASS: I B.Sc. Statistics				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/ week	CIA	Ext	Total
II	Ancillary		Ancillary statistics - II	5	6	25	75	100

COURSE OBJECTIVES

- To enable the students to have fundamental knowledge in the field of statistics and its applications.
- To develop the skill of computation in Random variables, Test of significance and Distributions.
- To provide a strong foundation in the basic concepts of Random variables, and ANOVA

Unit-I

Introduction – Random variables – Discrete random variable – Continuous random variable – Mathematical expectations – Moment generating function – Characteristic function.

Unit-II

Introduction – Binomial distribution – Poisson distribution – Normal Distribution – Some more continuous distributions.

Unit-III

Introduction – Sampling – Sampling distribution – Testing of hypothesis – Procedure for testing of hypothesis for large samples – Test of significance for large samples – Introduction – Test of significance based on t-distribution (t-test) – Test of significance based on F-test – Test for significance of an observed sample correlation.

Unit-IV

Introduction – χ^2 -test – χ^2 -test to test the goodness of fit – Test for independence of attributes.

Unit-V

Introduction – One criterion of classification – Two criteria of classification – Three criteria of classification Latin square.

Text Book:

1. S. Arumugam and A. ThangapandiIsaac, Statistics, 2015 Edition, New Gamma Publishing House.
Unit I: Chapter 12 (12.0 – 12.6).
Unit II: Chapter 13 (13.0 – 13.4).
Unit III: Chapter 14 & 15 (14.0 – 14.5 & 15.0 – 15.3).
Unit IV: Chapter 16 (16.0 – 16.3).
Unit V: Chapter 17 (17.0 – 17.3).

Book for Reference:

1. R. S. N. Pillai and Bagavathi, Statistics, 2013 Edition, S. Chand & Company Ltd.

Web Resources:

1. <https://nptel.ac.in/courses/111106112/>
2. <https://nptel.ac.in/courses/111105090/>
3. <https://www.khanacademy.org/math/statistics-probability>
4. <http://www.statisticslectures.com/>

Pedagogy:

Lecture, Power Point presentation, Seminar and Group Discussion.

COURSE LEARNING OUTCOMES

CLO1	Understand the basic concepts in Random variables (Discrete, Continuous), Mathematical expectations, Moment generating function, Characteristic function.	Up to K2
CLO2	Analyze the idea of Binomial distribution, Poisson distribution, Normal Distribution, Some more continuous distributions and its related problems.	Up to K4
CLO3	Apply Sampling, Testing of hypothesis (large samples), Test of significance based on t-test, F-test & sample correlation.	Up to K3
CLO4	Examine χ^2 -test, χ^2 -test to test the goodness of fit, Test for independence of attributes.	Up to K4
CLO5	Evaluate One criterion of classification, Two criteria of classification and Three criteria of classification Latin square	Up to K3

Mapping of Course Learning Outcomes (CLOs) with Program Outcomes (POs) and Program Specified Outcomes (PSOs)

CLO\PO-PSO	PO					PSO							
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CLO1	3	1	-	-	1	1	2	1	1	1	1	2	2
CLO2	2	3	-	-	2	2	3	2	3	3	2	1	1
CLO3	2	1	-	-	1	1	2	2	2	2	2	2	2
CLO4	2	3	-	-	2	2	3	3	2	3	2	3	2
CLO5	2	1	-	-	1	1	2	2	2	2	2	2	3

3- Advance Application

2- Intermediate Level

1- Basic Level

Blue Print – External

Sl. No	CLOs	K. Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)	Total
			MCQs		Short Answers				
			No. of questions	K. Level	No. of questions	K. level			
1	CLO1	Up to K2	2	K1 & K2	1	K1	2 (K1 & K1)	1 (K2)	6
2	CLO2	Up to K4	2	K1 & K2	1	K1	2 (K4 & K4)	1 (K3)	6
3	CLO3	Up to K3	2	K1 & K2	1	K2	2 (K3 & K3)	1 (K3)	6
4	CLO4	Up to K4	2	K1 & K2	1	K2	2 (K2 & K2)	1 (K4)	6
5	CLO5	Up to K3	2	K1 & K2	1	K2	2 (K3 & K3)	1 (K3)	6
No. of Questions to be asked			10		5		10	5	30
No. of Questions to be answered			10		5		5	3	23
Marks for each question			1		2		5	10	
Total Marks for each Section			10		10		25	30	75

K1 - Remembering and recalling facts with specific answers

K2 - Basic understanding of facts and stating main ideas with general answers

K3 - Application oriented - Solving Problems

K4 - Examining, analyzing, presentation and make inferences with evidences.

Distribution of Section-wise Marks with K levels*

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	5	4	10	-	19	15.83	42%
K2	5	6	10	10	31	25.83	
K3	-	-	20	30	50	41.67	42%
K4	-	-	10	10	20	16.67	16%
Total marks	10	10	50	50	120	100.00	100%

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Mapping with Course Learning Outcomes(CLOs)

Sl. No	CLOs	K. Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)	Total
			MCQs		Short Answers				
			No. of questions	K. Level	No. of questions	K. level			
1	CLO1	Up to K2	2	K1 & K2	2	K1	2 (K1 & K2)	1 (K2)	7
2	CLO2	Up to K4	2	K1 &K2	1	K2	2 (K3 & K3)	2 (K4)	7
No. of Questions to be asked			4		3		4	3	14
No. of Questions to be answered			4		3		2	2	11
Marks for each question			1		2		5	10	
Total Marks for each Section			4		6		10	20	40

K1 - Remembering and recalling facts with specific answers

K2 - Basic understanding of facts and stating main ideas with general answers

K3 - Application oriented - Solving Problems

K4 - Examining, analyzing, presentation and make inferences with evidences.

Distribution of Section-wise Marks with K levels*

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	2	4	5	-	11	18.33	50%
K2	2	2	5	10	19	31.66	
K3	-	-	10	-	10	16.66	17%
K4	-	-	-	20	20	33.33	33%
Total marks	4	6	20	30	60	100.00	100%

Blue Print – CIA – II
Mapping with Course Learning Outcomes (CLOs)

Sl. No	CLOs	K. Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)	Total
			MCQs		Short Answers				
			No. of questions	K. Level	No. of questions	K. level			
1	CLO3	Up to K3	2	K1 & K2	2	K1	2 (K1 & K2)	1 (K2)	7
2	CLO4	Up to K4	2	K1 &K2	1	K2	2 (K3 & K3)	2 (K4)	7
No. of Questions to be asked			4		4		3		4
No. of Questions to be answered			4		4		3		2
Marks for each question			1		1		2		5
Total Marks for each Section			4		4		6		10

K1 - Remembering and recalling facts with specific answers

K2 - Basic understanding of facts and stating main ideas with general answers

K3 - Application oriented - Solving Problems

K4 - Examining, analyzing, presentation and make inferences with evidences.

Distribution of Section-wise Marks with K levels*

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	2	4	5	-	11	18.33	50%
K2	2	2	5	10	19	31.66	
K3	-	-	10	-	10	16.66	17%
K4	-	-	-	20	20	33.33	33%
Total marks	4	6	20	30	60	100.00	100%

LESSON PLAN

UNIT	Description	Staff Handling	Hours (90 hr)	Mode
I	Introduction, Random variables		4	Lecture
	Discrete random variable, Continuous random variable		5	Lecture /Problem Solving
	Mathematical expectations		5	Problem Solving
	Moment generating function, Characteristic function		4	PPT
II	Introduction, Binomial distribution		6	Lecture
	Poisson distribution, Normal Distribution		6	Lecture /Problem Solving
	Some more continuous distributions		6	Lecture /Problem Solving
III	Introduction, Sampling, Sampling distribution, Testing of hypothesis.		4	Lecture/Group Discussion
	Procedure for testing of hypothesis for large samples, Test of significance for large samples		7	Lecture /Problem Solving
	Introduction, Test of significance based on t-distribution (t-test), Test of significance based on F-test, Test for significance of an observed sample correlation		7	Lecture /Problem Solving
IV	Introduction, χ^2 -test		6	Lecture /Problem Solving
	χ^2 -test to test the goodness of fit		6	Seminar
	Test for independence of attributes		6	PPT
V	Introduction, One criterion of classification		6	Lecture /Problem Solving
	Two criteria of classification		6	Lecture /Problem Solving
	Three criteria of classification Latin square.		6	Lecture /Problem Solving
Total			90	

Course Designer:

Dr. D. VINODH, Assistant Professor, Dept. of Mathematics

DEPARTMENT OF STATISTICS				CLASS: I B.Sc. Statistics				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
II	Core	20U2SMC3	Probability distributions	4	5	25	75	100

Course Objectives

- To enrich and enhance the fundamental knowledge in various Discrete and Continuous probability distributions.
- To familiarize the students with different probability models and real-life situations.
- To provide strong foundation in the basic concepts of Sampling distributions.
- To understand and derive the relationship between Student's t, F and Chi-square distributions.

Unit-I: (18 hrs)

Discrete Distributions: Discrete Uniform Distribution, Bernoulli Distribution, Binomial Distribution, and Poisson Distribution – Moments of these Distributions – Moment generating function, Characteristic function, Cumulants, Probability Generating Function, Mode, Additive property of Binomial and Poisson Distributions – Recurrence relations for the probabilities — Fitting of Binomial and Poisson Distributions.

Unit-II: (9 hrs)

Discrete Distributions: Negative binomial Distribution, Geometric Distribution, Hypergeometric Distribution, Multinomial Distribution – Moments, Moment generating function and Characteristic function of these Distributions – Cumulants and Probability generating function of Negative Binomial distribution – Mean and Variance of Hypergeometric Distribution.

Unit-III: (18 hrs)

Continuous Distributions: Uniform, Normal Distribution and its properties (Chief Characteristics and Area property of Normal Distribution), Exponential Distribution – Moments, Moment generating function and Characteristic function of these Distributions – Mean Deviation about the Mean for Normal and Uniform Distributions – Mode, Median, Cumulant generating function, Error Function and Importance of Normal Distribution – Fitting of Normal Distribution.

Unit-IV: (12 hrs)

Continuous Distributions: Gamma Distribution – Mgf, Cumulant generating function & Additive property of Gamma Distribution – Beta Distribution of First kind & Second kind – Constants of Beta Distribution of First kind & Second kind – Characteristic function of Gamma & Beta Distributions.

Unit-V: (18 hrs)

Sampling Distributions: Student's t, Chi-Square and F-Distributions (Derivation, Properties and Interrelationships).

Text Book:

1. Gupta S.C and Kapoor V. K, Fundamentals of Mathematical Statistics, Eleventh Thoroughly Revised Edition 2002(Reprint 2019), Sultan Chand & Sons, New Delhi.

CHAPTERS: 8 [Section 8.1 – 8.9 (8.9.1)]

9 [Section 9.2 (9.2.2 – 9.2.14), 9.3 (9.3.1 – 9.3.4), 9.5 (9.5.1 – 9.5.3),

9.6 (9.6.1), 9.7 (9.7.1), 9.8 (9.8.1)]

15 [Section 15.1 – 15.4]

16 [Section 16.1, 16.2 (16.2.1 – 16.2.4), 16.5 (16.5.1 – 16.5.3), 16.7, 16.8]

Books for Reference:

1. Hogg R. V, Tannis E and Zimmerman D (2014) Probability and Statistical Inference, Pearson, New Delhi.
2. Mood A.M, Graybill F.A. and Boes D.C (1974) Introduction to Theory of Statistics, Tata McGraw Hill, New Delhi
3. Goon A.M, Gupta M.K. and Das Gupta B. (1993) Fundamentals of Statistics Vol. I. World press, Kolkata.
4. Rohatgi V.K and Saleh A. K MD.E. (2001) An Introduction to Probability and Statistics, Wiley, India.
5. Mukhopadhyay P, (2002), Mathematical Statistics, Book and Allied Publishers, New Delhi.

Web Resources

1. <https://ocw.mit.edu/courses/mathematics/18-440-probability-and-random-variables-spring-2014/index.htm>
2. <https://stattrek.com/probability-distributions/probability-distributions.aspx>
3. https://youtu.be/mrCxwEZ_22o
4. <https://www.studocu.com/en-gb/document/university-of-southampton/statistical-distribution-theory/lecture-notes/statistical-distribution-theory-lecture-notes-chapter-1-6/608333/view>
5. <https://www.analyticsvidhya.com/blog/2017/09/6-probability-distributions-data-science/>
6. <http://www.math.wm.edu/~leemis/chart/UDR/UDR.html>

Pedagogy :

Lecture, Seminar, Quiz, Group Discussion, PPT, LMS (CANVAS).

Course Learning Outcomes

On the successful completion of the course, students will be able to

CLO1	Recognize cases where the Discrete Uniform, Binomial and Poisson distributions could be an appropriate model and apply it in variety of problems	Upto K4
CLO2	Explain the Moment generating function and Characteristic function of Negative binomial, Geometric, Hypergeometric and Multinomial distributions	Upto K2
CLO3	Analyze and apply the concepts of Continuous probability distributions such as Uniform, Exponential and Normal distributions to various business and other real life problems.	Upto K4
CLO4	Determine the Beta & Gamma distributions and its properties	Upto K3
CLO5	Apply the appropriate testing of student's t test, F-test and Chi-square test for independence and goodness of fit.	UptoK3

Mapping of Course Learning Outcomes (CLOs) with Program Outcomes (PO) & Program Specified Outcomes (PSOs)

	PO					PSO							
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CLO1	3	3	-	-	2	2	3	3	1	3	1	3	2
CLO2	3	2	-	-	1	2	1	3	-	3	1	3	-
CLO3	3	3	-	-	2	2	3	3	1	3	1	3	2
CLO4	3	2	-	-	1	1	1	3	-	3	1	3	-
CLO5	3	2	-	-	2	2	2	3	2	3	1	3	1

3 - Advanced Application 2 - Intermediate Level

1- Basic Level

B.Sc. STATISTICS – II SEMESTER

S. No.	CLOs	K – Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)	Total
			MCQs		Short Answers				
			No. of questions	K - Level	No. of questi ons	K - Level			
1	CLO1	Up to K4	2	K1 & K2	1	K2	2 (K4 & K4)	1(K3)	
2	CLO2	Up to K2	2	K1 & K2	1	K1	2 (K1 & K1)	1(K2)	
3	CLO3	Up to K4	2	K1 & K2	1	K2	2 (K3 & K3)	1(K4)	
4	CLO4	Up to K3	2	K1 & K2	1	K1	2 (K2 & K2)	1(K3)	
5	CLO5	Up to K3	2	K1 & K2	1	K2	2 (K3 & K3)	1(K3)	
No. of Questions to be asked			10		5		10	5	30
No. of Questions to be answered			10		5		5	3	23
Marks for each question			1		2		5	10	
Total Marks for each Section			10		10		25	30	75

K1 - Remembering and recalling facts with specific answers

K2 - Basic understanding of facts and stating main ideas with general answers

K3 - Application oriented - Solving Problems

K4 - Examining, analyzing, presentation and make inferences with evidences.

BLUE PRINT – EXTERNAL EXAM Distribution of Section-wise Marks with K Levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	5	4	10	-	19	15.83	42%
K2	5	6	10	10	31	25.83	
K3	-	-	20	30	50	41.67	42%
K4	-	-	10	10	20	16.67	16%
Total marks	10	10	50	50	120	100	100%

BLUE PRINT – CIA-1

S. No.	CLOs	K-level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)	Total
			MCQs		Short Answers				
			No. of Questions	K-Level	No. of Questions	K-Level			
1	CLO 1	Up to K4	2	K1 & K2	2	K2 & K2	2(K4 & K4)	2(K3 & K3)	
2	CLO 2	Up to K2	2	K1 & K2	1	K1	2(K1 & K1)	1(K2)	
No. of Questions to be asked			4		3		4	3	14
No. of Questions to be answered			4		3		2	2	11
Marks for each question			1		2		5	10	
Total Marks for each Section			4		6		10	20	40

Distribution of Section-wise Marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	2	2	10	-	14	23.33	50%
K2	2	4	-	10	16	26.67	
K3	-	-	-	20	20	33.33	33%
K4	-	-	10	-	10	16.67	17%
Total marks	4	6	20	30	60	100	100%

BLUE PRINT – CIA-2

S. No.	CLOs	K-level	Section A		Section B		Section C	Section D	Total
			MCQs		Short Answers				
			No. of Questions	K-Level	No. of Questions	K-Level	(Either/or Choice)	(Open Choice)	
1	CLO 3	Up to K4	2	K1 & K2	2	K2 & K2	2(K3 & K3)	2(K4 & K3)	
2	CLO 4	Up to K2	2	K1 & K2	1	K1	2(K2 & K2)	1(K3)	
No. of Questions to be asked			4		3		4	3	14
No. of Questions to be answered			4		3		2	2	11
Marks for each question			1		2		5	10	
Total Marks for each Section			4		6		10	20	40

Distribution of Section-wise Marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	2	2	-	-	4	6.67	33%
K2	2	4	10	-	16	26.67	
K3	-	-	10	20	30	50	50%
K4	-	-	-	10	10	16.67	17%
Total marks	4	6	20	30	60	100	100%

LESSON PLAN

UNIT	Description	Hours	Total Hours	Mode
I	Discrete Uniform Distribution – Bernoulli Distribution – Binomial Distribution – Moments	1	18	Lecture / ICT Tools
	Problem Solving Session of Binomial Distribution	2		Lecture / LMS
	Factorial Moments – Moment generating function – Characteristic function – Probability Generating Function – Recurrence relation of Binomial Distribution	4		Lecture / PPT
	Poisson Distribution – Moments – Mode – Recurrence relation – Moment generating function	2		Lecture / ICT Tools
	Characteristic function – Cumulants – Additive Property – Probability Generating Function – Recurrence formula of Poisson Distribution	3		Lecture / PPT / Group Discussion
	Problem Solving Session of Poisson Distribution	1		Lecture / LMS (CANVAS)
	Fitting of Binomial and Poisson Distributions.	4		Lecture
	Tutorial	1		Quiz through LMS (CANVAS)
II	Negative binomial Distribution – Moment generating function – Cumulants – Probability Generating Function	2	9	Lecture / Seminar
	Deduction of Moments of Negative binomial Distribution from those of Binomial Distribution	1		Lecture / Seminar
	Geometric Distribution – Moments – Moment generating function.	1		Lecture / Group Discussion
	Hypergeometric Distribution– Mean and Variance, Factorial Moments of Hypergeometric Distribution,	1		Lecture
	Approximation to Binomial Distribution – Recurrence relation for the Hypergeometric Distribution	1		Lecture
	Multinomial Distribution– Moments – Problem Solving Session	2		Lecture
	Tutorial	1		Quiz
III	Normal Distribution – Characteristics – Mode - Median	2		Lecture / PPT
	Moments – Moment generating function and Characteristic function – Cumulant generating function	1		Lecture

	Mean Deviation about the mean – Area Property – Error Function – Importance of Normal Distribution	1	18	Lecture / ICT Tools
	Properties – Fitting of Normal Distribution – Problem Solving Session	7		Lecture
	Uniform Distribution – Moments – Moment generating function and Characteristic function – Mean Deviation about Mean	2		Lecture
	Problem Solving Session	2		Lecture
	Exponential distribution – Moment generating function and Characterisation of Exponential Distribution	2		Lecture
	Tutorial	1		Quiz through LMS (CANVAS)
IV	Gamma Distribution – Moment generating function – Cumulant generating function and Additive Property	2	12	Lecture / Seminar
	Simple problems based on Gamma distributions.	1		Lecture / Seminar
	Beta distribution of First kind – Constants of Beta distribution of First kind	2		Lecture
	Beta distribution of Second kind – Constants of Beta distribution of Second kind	2		Lecture
	Problem Solving Session on Both Gamma & Beta distributions	4		Lecture
	Tutorial	1		Quiz
V	Introduction to Sampling Distributions – Chi-square Distributions – Derivation	1	18	Lecture / ICT Tools
	Moment generating function – Cumulant generating function – Characteristic function – Additive property of Chi-square Distributions	1		Lecture
	Some Theorems on Chi-square Distribution	3		Lecture
	<i>Student's t</i> Distribution– Derivation –Properties	1		Lecture
	Constants of <i>t</i> Distribution – Moment generating function of <i>t</i> Distribution	1		Lecture
	Problem Solving Session of <i>t</i> Distribution	3		Lecture
	F-Distribution – Derivation –Properties	1		Lecture
	Constants of F Distribution – Mode and Point of inflection	2		Lecture
	Problem Solving Session of F Distribution	3		Lecture
	Relation between <i>t</i> and F Distribution	1		Lecture
	Relation between F and Chi-square Distribution	1		Lecture
Total			75	

Course Designers:

1. Mr.S. Anandasrinivasan, Assistant professor, Dept. of Mathematics.
2. Mrs.V. Vijayalakshmi, Assistant professor, Dept.of Mathematics.

<i>DEPARTMENT OF STATISTICS</i>				<i>CLASS: I B.Sc. Statistics</i>				
Semester	Course Type	Course Code	Course Title	Credits	Contact Hours/week	CIA	Ext	Total
II	Core	20U2SMC4	Matrix theory	4	4	25	75	100

COURSE OBJECTIVE

- To provide strong foundation in the basic concepts of Linear Algebra and Matrices.
- To enable the students to have fundamental knowledge in the field of Matrices
- To develop computational proficiency involving procedures in Matrix Theory.

Unit-I

Matrices and System of Linear Equations: Transpose-Conjugate transpose- Reversal law for the transpose and conjugate transpose. Adjoint of a matrix, Inverse of a matrix, Singular and Non –Singular matrices. symmetric, skew-symmetric, Hermitian, skew-Hermitian.Partitioning of matrices.

Unit-II

Rank of a matrix: Elementary transformations, Elementary matrices, Row and Column ranks – rank of a matrix. Invariance of rank through elementary transformations, Reduction to Normal form, Rank of sum and product of matrices, Equivalent matrices.

Unit-III

Characteristic Roots and Vectors: Matrix polynomials, Characteristic roots and vectors, Cayley- Hamilton theorem, Minimum polynomial of a matrix.

Unit-IV

Orthogonal and Unitary matrices, Use of inverse of a matrix to find the solution of a system of linear equations – conditions for consistency of equations.

Unit-V

Quadratic Forms: Quadratic Form – Matrix of a quadratic form – rank, signature and classification of quadratic forms – Sylvester’s of Inertia.

Text Book:

B.S. Vatsa, Suchi Vatsa, Theory of Matrices, Third Edition, Reprint 2014, New Age International (P) limited, Publishers, New Delhi.

Chapters: 1(1.1-1.5), 2(2.7), 4(4.1, 4.2, 4.4),5(5.1-5.7),6(6.1-6.3),8(8.1,8.2,8.4),10(10.1-10.3,10.7)

Books for Reference:

1. Vasishtha, A.R.(1992) Matrices, Krishna Prakashan, Meerut.
2. Shanthi Narayan. And Mittal, P.K. (2000) A Text Book of Matrices, S. Chand& Co, New Delhi
3. Richard Bronson. (2011) Matrix Operations, Schaum’s Outline Series, McGraw Hill, New York.
4. Searle, S. R. (2006) Matrix Algebra useful for Statistics, Wiley Interscience, New York.

Web Resources:

1. <https://www.khanacademy.org>
2. <https://www.cs.brown.com>
3. <https://www.ocw.mit.com>
4. <https://www.wardsdatascience.com>
5. <https://www.3blue1brown.com>

Pedagogy:

Lecture, Seminar, Quiz, Group Discussion and Power point presentation.

COURSE LEARNING OUTCOMES

CLO1	Able to apply the reverse law to solve the system of linear equations and also classify the various types of Matrices.	UptoK3
CLO2	Understanding the concept of Elementary transformations to evaluate the Rank of Matrices and Analyze the invariance of matrices and Normal forms of Matrices.	UptoK2
CLO3	Compute Eigen Values and Eigen vectors of the matrices and explain the concept of Cayley Hamilton theorem.	Upto K3
CLO4	Interpret the conditions for consistency for the system of equations.	UptoK3
CLO5	Construct and classify the Quadratic forms of a matrix.	Upto K4

**Mapping of Course Outcomes (COs) with Program Outcomes (PO) &
Program Specified Outcomes (PSOs)**

	PO					PSO							
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8
CLO1	3	3	-	-	2	2	2	1	2	3	3	3	1-
CLO2	3	3	-	-	2	2	2	1	2	3	3	3	1
CLO3	3	2	-	-	2	1	1	1	2	3	3	2	1
CLO4	2	2	-	-	1	1	1	1	2	3	2	3	1
CLO5	2	2	-	-	1	1	1	1	2	3	2	2	1

3- Advance Application 2- Intermediate Level

1- Basic Level

Blue Print (External Exam)

S. No	CLOs	K. Level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of questions	K. Level	No. of questions	K. level		
1	CLO 1	Up to K3	2	K1 &K2	1	K1	2(K3&K3)	1(K3)
2	CLO 2	Up to K2	2	K1 &K2	1	K1	2(K2&K2)	1(K2)
3	CLO 3	Up to K3	2	K1 &K2	1	K2	2(K2&K2)	1(K3)
4	CLO 4	Up to K3	2	K1 &K2	1	K2	2(K3&K3)	1(K3)
5	CLO 5	Up to K4	2	K1 &K2	1	K3	2(K4&K4)	1(K4)
No. of Questions to be asked			10		5		10	5
No. of Questions to be answered			10		5		5	3
Marks for each question			1		2		5	10
Total Marks for each Section			10		10		25	30

K1 - Remembering and recalling facts with specific answers.

K2 - Basic understanding of facts and stating main ideas with general answers.

K3 - Application oriented - Solving Problems.

K4 - Examining, analyzing, presentation and make inferences with evidences.

Distribution of section wise marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	5	4	-	-	09	7.50	41.66%
K2	5	6	20	10	41	34.16	
K3	-	-	20	30	50	41.67	41.67%
K4	-	-	10	10	20	16.67	16.67%
Total marks	10	10	50	50	120	100	100%

BLUE PRINT – CIA – 1

S. No.	CLOs	K-level	Section A		Section B		Section C	Section D	Total
			MCQs		Short Answers				
			No. of Questions	K-Level	No. of Questions	K-Level	(Either/or Choice)	(Open Choice)	
1	CLO 1	Up to K3	2	K1 & K2	2	K2	2(K2& K2)	2(K3)	
2	CLO 3	Up to K3	2	K1 & K2	1	K1	2(K3& K3)	1(K2)	
No. of Questions to be asked			4		3		4	3	
No. of Questions to be answered			4		3		2	2	
Marks for each question			1		2		5	10	
Total Marks for each Section			4		6		10	20	
Total			4		6		10	20	40

Distribution of Section-wise Marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	2	2	-	-	04	6.67	
K2	2	4	10	10	26	43.33	50.00%
K3	-	-	10	20	30	50.00	50.00%
K4	-	-	-	-	-	-	-
Total marks	4	6	20	30	60	100	100%

BLUE PRINT – CIA -2

S. No.	CLOs	K-level	Section A		Section B		Section C (Either/or Choice)	Section D (Open Choice)
			MCQs		Short Answers			
			No. of Questions	K-Level	No. of Questions	K-Level		
1	CLO 4	Up to K3	2	K1 & K2	1	K1	2(K3 & K3)	2(K3)
2	CLO 5	Up to K4	2	K1 & K2	2	K2	2(K2 & K2)	1(K4)
No. of Questions to be asked			4		3		4	3
No. of Questions to be answered			4		3		2	2
Marks for each question			1		2		5	10
Total Marks for each Section			4		6		10	20

Distribution of Section-wise Marks with K levels

K Levels	Section A (No choice)	Section B (No choice)	Section C (Either/ or)	Section D (Open choice)	Total marks	% of marks without choice	Consolidated
K1	2	2	-	-	04	6.67	33.33%
K2	2	4	10	-	16	26.67	
K3	-	-	10	20	30	50.00	50.00%
K4	-	-	-	10	10	16.67	16.67
Total marks	4	6	20	30	60	100	100%

LESSON PLAN

Unit	Description	Staff handling	Taking hours	Total	Mode
I	Transpose Matrix - Conjugate transpose Matrix		2	12	Lecture
	Reversal law for the transpose and conjugate transpose matrix		4		Lecture & PPT
	Adjoint of a Matrix, inverse of a Matrix, singular & Nonsingular Matrix		4		Lecture
	Skew Symmetric & Skew-Hermitian Matrix		2		Lecture & Quiz
II	Elementary Transformations, Elementary Matrices		3	12	Lecture
	Row and Column Ranks, Rank of a Matrix		3		Lecture & Seminar
	Invariance of rank through elementary transformations.		4		Lecture
	Reduction to Normal form, Rank of Sum and Product of Matrices, Equivalent Matrices		2		Lecture & Group Discussion
III	Matrix Polynomials		2	12	Lecture
	Characteristic Roots and Vectors		4		Lecture
	Cayley-Hamilton theorem		3		Lecture
	Minimal equation of a Matrix		3		Lecture & Seminar
IV	Orthogonal and Unitary Matrices		2	12	Lecture
	Finding the solution of a system of linear equations using Inverse Matrix		4		Lecture & PPT
	Conditions for Consistency Equations		4		Lecture & Group Discussion
V	Quadratic Form		2	12	Lecture
	Matrix of Quadratic Form		3		Lecture & PPT
	Rank, Signature & Classification of Quadratic Forms		3		Lecture & Seminar
	Sylvester's of Inertia		4		Lecture & PPT
		TOTAL	60		

Course Designers:

1. Mrs. G. Nithyakala, Assistant Professor, Department of Mathematics.
2. Dr. M. Revathi, Assistant Professor, Department of Mathematics.

THE MADURA COLLEGE (AUTONOMOUS), MADURAI-11
DEPARTMENT OF STATISTICS
M.Sc., Statistics

VISSION

Vision of the Statistics department is to develop students ability to think analytically, speculatively and imaginatively and to encourage them to pursue higher education for the purpose of continuous curriculum innovations.

MISSION

- To help students develop their intellect and faith.
- To provide excellent training in scientific data collections, data management, methods and procedure of data analysis.
- To facilitate students to see themselves as professional, as part of a discipline with skills and abilities valuable in Business and teaching.

THE MADURA COLLEGE (Autonomous), MADURAI
DEPARTMENT OF STATISTICS
M.Sc., Statistics

(Choice Based Credit System)

(For the candidates admitted during the academic year 2019 – 2020 and onwards)

Course Structure and Scheme of Examinations

Semester	Course Code	Course Title	Hours	Credits	
I	19P1SMC1	Real Analysis and Linear Algebra	6	4	
	19P1SMC2	Probability Theory	6	4	
	19P1SMC3	Distribution Theory	6	4	
	19P1SMC4	Operations Research	6	4	
	Major Elective - I (one to be chosen)				
	19P1SME1(A)	Official Statistics	6	4	
	19P1SME1(B)	Financial Mathematics			
Total				20	
II	19P2SMC5	Sampling Theory	5	4	
	19P2SMC6	Statistical Estimation Theory	5	4	
	19P2SMC7	Demography	5	4	
	19P2SMC8	Programming in C	4	3	
	19P2SMP1	Lab: Practical in C	2	1	
	19P2SMP2	Statistics Practical I*	4	4	
	Major Elective - II (one to be chosen)				
	19P2SME2(A)	Data Mining	5	4	
19P2SME2(B)	Actuarial Statistics				
Total				24	
III	19P3SMC9	Testing Statistical Hypotheses	5	4	
	19P3SMC10	Multivariate Statistical Analysis	5	4	
	19P3SMC11	Statistical Quality Control and Reliability	5	4	
	19P3SMC12	Programming in R	4	3	
	19P3SMP3	Lab: Practical in R	2	1	
	19P3SNME	Elements of Operations Research	4	4	
	Major Elective - III (one to be chosen)				
	19P3SME3(A)	Econometrics	5	4	
19P3SME3(B)	Reliability Theory and Survival Analysis				
Total				24	
IV	19P4SMC13	Linear Models and Design of Experiments	6	4	
	19P4SMC14	Stochastic Processes	6	4	
	19P4SMC15	Programming in Python	4	3	
	19P4SMP4	Lab: Practical in Python	2	1	
	19P4SMP5	Statistics Practical II**	6	4	
	Major Elective - II (one to be chosen)				
	19P4SME4(A)	Applied Regression Analysis	6	4	
	19P4SME4(B)	Categorical Data Analysis			
Project and Viva-Voce			-	6	
Total				26	

* Statistics Practical I is based on the problems relating to the topics covered in Semester I and II

** Statistics Practical II is based on the problems relating to the topics covered in Semester III and IV

Course code	Course title	C	H	I	E	T
19P3SMC9	Testing Statistical Hypotheses	4	5	25	75	100

Learning Objectives:

- To describe real life examples to explain the motivation behind hypothesis testing.
- To be able to construct the appropriate null and alternative hypothesis
- To identify the steps in the structure of hypothesis testing.
- To Understand problem of statistical inference, problem of testing of hypothesis

Learning Outcomes:

On completion of the course, students should be able to

- Construct Most Powerful test using NP Lemma and understand situation when UMP test exists
- Construct Uniformly Most Powerful test in one parameter exponential family
- Explain Likelihood ratio test for categorical data.
- Construct SPRT in case of Binomial, Poisson, Normal Distribution
- Application of one sample non-parametric test and two parametric non-parametric test.
- Understand Sequential testing. Sequential probability ratio test.

Unit-I

Randomized and non-randomized tests. Neyman – Pearson fundamental lemma, Most Powerful test, Uniformly most powerful test, Uniformly most powerful test - monotone likelihood ratio

Unit-II

Generalization of fundamental lemma. -UMP Unbiased tests for one-parameter exponential family - Uniformly most powerful similar tests. UMP Unbiased tests for multi-parameter exponential family - Locally most powerful tests.

Unit-III

Likelihood Ratio tests -Asymptotic distribution of the likelihood ratio tests. - likelihood ratio tests for categorical data –Test Consistency- Invariant tests – maximal invariants - uniformly most powerful invariant tests

Unit-IV

Empirical distribution function - Kernel and symmetric kernel. U statistic and its properties. One sample non-parametric tests – Kolmogorov–Smirnov test, The Sign test, Wilcoxon’s Signed Rank test, Test for randomness. Two-sample non-parametric tests- Wald-Wolfowitz runs test, Mann-Whitney U test, Kolmogorov-Smirnov test, Median test. K-sample non-parametric tests – Kruskal-Wallis Test and Friedman’s test

Unit-V

Sequential test –Sequential Probability Ratio Test (SPRT). OC and ASN functions of SPRT and their derivation. Optimum properties of SPRT.

Book for study

1. Rajagopalan, M. and Dhanavanthan, P. (2012).Statistical Inference.PHI Learning Pvt. Ltd., New Delhi.

Books for Reference

1. Srivastava, M. K. and Srivastava,N. (2009) Statistical Inference: Testing of Hypotheses, PHI Learning, New Delhi.
2. Lehmann E.L. and Casella, G.(1998) Testing statistical hypotheses,2/e, Springer , New York.
3. Rao, C.R. (1998) Linear Statistical Inference and its applications, Wiley Eastern, New Delhi.
4. Casella, G. and Berger, R.L. (2002).Statistical Inference (Second Edition). Thompson Learning, New York. (Reprint, 2007).
5. Conover, W. J. (1999). Practical Nonparametric Statistics (Third Edition). John Wiley & Sons, New York. (Reprint, 2007).
6. Gibbons, J. D., and Chakraborti, S. (2010). Nonparametric Statistical Inference (Fifth Edition).Taylor & Francis, New York.
7. Kale, B. K. (2005).A First Course in Parametric Inference (Second Edition).Narosa Publishing House, New Delhi. (Reprint, 2007).
8. Rohatgi, V.K. and Saleh, A.K.MD.E. (2011) An Introduction to Probability and Statistics, 2/e,Wiley, New York.
9. Goon, A.M., Gupta, M. K., and Dasgupta, B. (1989).An Outline of Statistical Theory, Vol. II, World Press, Kolkata.

Course code	Course title	C	H	I	E	T
19P3SMC10	Multivariate Statistical Analysis	4	5	25	75	100

Learning Objectives:

- To focus on the standard methods of multivariate statistical analysis. Many essential data analysis techniques, such as principal component analysis and discriminant analysis.
- To equip students with the necessary skills for being data analysts.

Learning Outcomes:

On completion of the course, students should be able to

- Describe the nature and the properties of Multivariate Normal Distribution.
- Account for important theorems and concept in Multivariate Analysis
- Formulate and solve inference problems that use one or a combination of the following multivariate statistical procedures: correlation and partial correlation.
- Compute the maximum likelihood estimates of the principal components and canonical correlation analysis.

Unit-I

The Multivariate Normal Distributions – The Distributions of linear combinations of normally – distributed variates, independence of variates, marginal distributions – conditional distributions and multiple correlation coefficient – the characteristic function: moments – estimation of the mean vector and the covariance matrix: Introduction - The maximum likelihood estimators of the mean vector and the covariance matrix.

Unit-II

The distributions and uses of sample correlation coefficients : Introduction – Correlation coefficient of a bivariate sample – partial correlation coefficients, conditional distributing – The generalized T^2 -statistic

Unit-III:

Classification of observations: The problem of classification – standards of good classification – procedures of classification into one of two populations with known probability distributions – classification into one of two known multivariate normal populations – classifications into one of two multivariate normal distributions when the parameters are estimated – probabilities of misclassification – classification into one of several multivariate normal populations – an example of classification into one of several multivariate normal populations – classification into one two known multivariate covariance matrices.

Unit-IV:

The distribution of the sample covariance matrix and the sample generalized variance: Introduction – The Wishart distributions – some properties of the Wishart Distributions – Co-Charan's Theorem – The generalized variance – distributions of the set of correlation coefficients when the population covariance matrix is diagonal the inverted Wishart distribution and Bayes Estimation of the covariance matrix – improved estimation of the covariance matrix – elliptically contoured distributions.

Unit-V:

Principal components: Introduction – definition of principal component in the population – maximum likelihood estimators of the principal components and their variance – computation of the maximum likelihood

estimates of the principal components canonical Correlation and correlation and variates in the population – estimation of canonical correlations and variates of statistical inference

Book for Study

1. T.W. Anderson, In Introduction to Multivariate Statistical Analysis, Wile Eastern Ltd, (2003)

Books for Reference

1. Morrison, D.F. Multivariate Statistical Methods (Fourth Edition). Duxbury Press, New York.(2004)
2. Johnson, R.A. and D.W. Wichern. Applied Multivariate Statistical Analysis (Sixth Edition), Pearson New International Edition. .(2013)
3. Kendall, M.G., Stuart, A. and Ord, K.J. The Advanced Theory of Statistics. (Fourth Edition), Vol. 2, Charles Griffin company Ltd.(1973).
4. Kotz, S., Balakrishnan, N. and Johnson, N.L, Continuous Multivariate Distribution Models and Applications (Second Edition). Volume 1, Wiley - Inter science, New York.(2000).
5. Mardia, K.V., Kent, J. T and Bibby, J. M. Multivariate Analysis. Academic Press, New York(1979).
6. Rao, C.R. Linear Statistical Inference and its Applications (Second Edition), Wiley-Inter Science, New York.(2001)

Course code	Course title	C	H	I	E	T
19P3SMC11	Statistical Quality Control and Reliability	4	5	25	75	100

Learning Objectives:

- To Understand the performance advantage of CUSUM and EWMA control charts relative Shewhart control charts
- Know how to design single-sampling, double-sampling, and sequential-sampling plans for attributes

Learning Outcomes:

On completion of the course, students should be able to

- Design various types of control charts such as CUSUM , EWMA and Moving average
- Draw a single, double and multiple sampling with specified OC Curve/
- Derive the OC curve and the parameters of the plan
- Explain the concept of three level continuous sampling plan.
- Explain concepts of reliability and maintainability

Unit-I

Modified control limits – the use of control limits for moving average – difference control charts – Mid range and Median charts - design of cumulative charts and V-mask. The Exponentially Weighted Moving Average Control Chart - The Exponentially Weighted Moving average Control Chart for Monitoring the Process Mean - Design of an EWMA Control Chart - Robustness of the EWMA to Non-normality -Moving-average control chart

Unit-II

Acceptance sampling - Advantages and Disadvantages of Sampling - Types of Sampling Plans - lot formation – sampling inspection by attributes – single sampling plans for attributes – OC function – Designing a Single-Sampling Plan with a Specified OC Curve - rectifying inspection - Double and multiple sampling plans – OC, ASN, ATI and AOQ functions – the Dodge – Roming sampling plans - AOQL, LTPD

Unit-III

Acceptance sampling by variables –concept, advantage and limitations – the Shanin lot method - known and unknown sigma variables sampling plan - merits and demerits of variables sampling plan - derivation of OC curve and the parameters of the plan.

Unit-IV

Continuous sampling plans by attributes - CSP-1 and its modifications - concept of AOQL in CSPs - Multi-level continuous sampling plans - Operation of multi-level CSP of Lieberman and Solomon - Wald-Wolfowitz continuous sampling plans - Sequential Sampling Plans by attributes - OC and ASN functions.

Unit-V

Reliability – Definition – basic elements of reliability – bath tub curve – achievement of reliability – designing for reliability – measuring of reliability –cost of reliability – maintenance and reliability – mean time between failures (MTBF) – Mean time repair (MTTR) – Failure mode, effect and critically analysis (FMECA) – Total productive maintenance (TPM) – Hazard analysis – failure rate and hazard function – constant hazard model – linear hazard model –MTTF – system and component –parallel system-reliability of switches.

Books of Study

1. Mahajan, M, Statistical Quality Control,3/e, Dhanpat Rai and Co., Delhi. (2002)
2. Montgomery, D.C. Introduction to Statistical Quality Control,6/e, Wiley India, New Delhi.(2009)

Books for Reference:

1. Bowker, A.H. and Lieberman, G.J. Engineering Statistics,2/e, Prentice Hall, New Delhi(1982).
2. Grant, E.L. and Leavenworth, R.S. Statistical Quality Control,7/e, Tata McGraw Hill, New Delhi(2000).
3. Juran, J.M. and De Feo, J.A. Juran's Quality control Handbook – The Complete Guide to Performance Excellence,6/e, Tata McGraw-Hill, New Delhi (2010).
4. Schilling, E. G. and Nuebauer, D.V. Acceptance Sampling in Quality Control, 6/e, CRC Press, New York (2009).
5. Wetherill, G.B, Sampling Inspection and Quality Control, 2/e, Chapman and Hall, London. . (1977)
6. Lawless, J.F, Statistical models and methods of Lifetime Data, Wiley, New York. .(1972)
7. John T. Burr, Elementary Statistical Quality Control (Second Edition), Marcel Dekker New York, (2004).
8. Duncan, A.J. Quality Control and Industrial Statistics, Irwin - Illinois. (2006)

Course code	Course title	C	H	I	E	T
19P3SMC12	Programming in R	3	4	25	75	100

Learning Objectives

- To enrich the students to have a good foundation and practical knowledge on programming in R
- To know how to compute basic statistics and statistical models through R.

Learning Outcomes

On completion of the course, students should be able to

- Understand the concept of R programming and apply it in simple tasks.
- Create R programs for statistical analysis.
- Perform and interpret the statistical data using a computer package;

Unit-I

Data types in *r* numeric/character/logical; real/integer/complex strings and the paste command matrices, data frames, lists, setwd, read, table, read, csv, write. matrix, write. csv, creation of new variables, categorization, cut, factor; round, apply, creation of patterned variables - saving output to a file; source; print -saving workspace / history.

Unit-II

Graphics in *r* - the plot command, histogram, bar plot, box plot - points, lines, segments, rows, paste - inserting mathematical symbols in a plot, pie diagram, customization of plot-setting graphical parameters - text and mtext, the pairs command, colours and palettes, saving to a file ; graphical parameters such asmar/ mai/ mfrow, xlab/ ylab/ las/ xaxp / yaxp/ xlim/ ylim/ cex/ axis/ tck/ srt, main/ title/ legend/ locator, identify.

Unit-III

Basic statistics - *r* help-command help, help.search(), *r* mailing list - contributed documentation on cran - one and two sample *t* tests, Bartlett's test for variance, *f* - test for equality of variances, multi sample means, non-parametric tests, chi- squared tests - randomness, homogeneity, independence, exact tests and confidence intervals, checking the assumptions, distribution fitting.

Unit-IV

Vector matrix operations - matrix operations - addition, subtraction, multiplication, linear equations and eigenvalues, matrix decomposition - lu, qr and svd and inverse, the linear model and qr decomposition, determinant, finding rank.

Unit-V

Linear models - models, the summary function, goodness of fit measures, predicted values and residuals; residual plots, the ANOVA table, creating factors - *r* functions - random number generation and simulations - *r* libraries.

Books for Study and Reference

1. Purohit, S. G., Gore, S. D., and Deshmukh, S. R. Statistics Using R, Narosa Publishing House, New Delhi. (2009).
2. Quick, J. M. Statistical Analysis with R, Packt Publishing Ltd., UK(2010).
3. Everitt, B. S., and Hothorn, T. A, Handbook of Statistical Analyses Using R, Second Edition, Chapman and Hall, CRC Press.. (2010)

Course code	Course title	C	H	I	E	T
19P3SMP3	Lab: Practical in R	1	2	50	50	100

S.No	PROGRAMS
1.	Graphics - histogram, bar plot, box plot - pie diagram
2.	one and two sample t tests
3.	Bartlett's test for variance
4.	f - test for equality of variances
5.	Non-parametric tests
6.	Chi- squared tests - randomness, homogeneity, independence, exact tests
7.	Confidence intervals,
8.	Distribution fitting.
9.	Matrix operations - addition, subtraction, multiplication , Linear equations and igenvalues
10.	Matrix decomposition - lu, qr and svd and inverse, the linear model and qr decomposition determinant, finding rank.
11.	Linear models - goodness of fit
12.	ANOVA table

Course code	Course title	C	H	I	E	T
19P3SNME	Elements of Operations Research	4	4	25	75	100

Learning Objectives

- To understand the concepts of linear programming problem
- To understanding the concepts of Transportation and Assignment problems

Learning Outcomes

On completion of the course, students should be able to

- Explain and solve Linear programming problem using simplex method and Big M-Method
- Solve transportation problems to obtain optimum solution.
- Solve assignment problems to obtain optimum solution.
- Understand the concept of sequential problems with 2 and 3 machines n jobs

Unit-I

Formulation - Graphical and simplex methods of solving LPP - Use of artificial variables - Two-phase method and Big-M method.

Unit-II

Transportation problem: Transportation problem formulation- North-West Corner, Least cost, Vogel's Approximation method – UV-method.

Unit-III

Assignment problem - Hungarian Method - Travelling Salesman Problem.

Unit-IV

Network analysis by CPM/PERT: Basic Concept – Constraints in Network – Construction of the Network – Time calculations – Concept of slack and float in Network Analysis – Network crashing

Unit-V

Sequencing problems with 2 machines n jobs and 3 machines n jobs

Books for Study

1. Operations Research by Kanti Swarup, Gupta, P K and Man Mohan, Sultan Chand & Sons, Nineteenth Edition, New Delhi (2017).
2. Operations Research: An Introduction by Taha, H, Third Edition, McMillan Publishing Co - , Inc - , London (1982).

Books and Reference

1. Introduction to Operations Research by Hillier F S and Lieberman GJ, Fifth Edition, McGraw-Hill, NY (1990).
2. Operations Research: Theory, Methods and Applications by Sharma SD, Kedar Nath, Ram Nath and Co, Meerut (2017).
3. Principles of Operations Research with Application to Managerial Decisions by Wagner H M, Second Edition, Prentice Hall India Learning Private Limited and New Delhi(1980).

Course code	Course title	C	H	I	E	T
19P3SME3(A)	Econometrics	4	5	25	75	100

Learning Objectives:

- To forecast business cycles in the capitalist economy
- To study the effect of certain economic decision
- To give empirical context to a prior reasoning in economics

Learning Objectives:

On completion of the course, students should be able to

- Explain the concept of econometrics
- Explain the nature and the results of heteroscedasticity.

Unit-I

Meaning, scope and limitation of Econometrics –The theory of demand and supply - the law of demand - demand function – properties of demand function – Elasticity of demand - Price, Cross and income elasticity of demand – Mathematical relationship between elasticities - Supply function and elasticity of supply – The theory of consumer behavior.

Unit-II

Generalized least squares model: Introduction - estimation – implication of GLS - Single equation problems - Heteroscedasticity - Multi collinearity - Proxy variables in regression – Dummy variables in regression.

Unit-III

Autoregressive models – Lag Models – Adjustment lag models – Expectational lag models – Combination of adjustment and Expectational lag models – Bias of lag models – Distributed lag model - Autocorrelation: consequences of simple least squares in the presence of auto-correlation – The Durbin - Watson of statistic.

Unit-IV

Identification and Simultaneous equations problems –Bias in Simultaneous equations models - Indirect least square - Identification –Exact identification – Over identification - Rank and order conditions of identifiability –Methods of estimation- method, two-stage least squares method of estimation and Estimation of Limited Information Maximum Likelihood (LIML).

Unit-V

Simultaneous equations system - Simple least square method (SLS) – Indirect least square (ILS) - Least variance rate (LVR) method - Full Information Maximum Likelihood (FIML).

Book for Study

1. Agarwal H.S, Introduction to Econometrics, Lakshmi Narain Agarwal Educational Publishers, Agra (1976).

Books for Reference

1. Castle, J. and Shephard, N. *The Methodology and Practice of Econometrics*. Oxford University Press, London (2009).
2. Goldberger, A.S. *Econometrics theory*, Wiley, New York (1964).
3. Kelejion, H. H. and Oates, W. E *Introduction to Econometrics, Principles and Applications*. Harper and Row, New York. (1988).
4. Maddala, G.S. and Kajari Lagari. *Introduction to Econometrics*, Wiley, New York (2009).
5. Madnani, G.M.K. *Introduction to Econometrics: Principles and Applications*. Oxford and IBH, New Delhi (2008).
6. Wooldridge, J *Introduction Econometrics: A Modern Approach*. Cengage Learning, New Delhi. (2012).
7. Gujarati, D. N., Dawn C Porter and Sangeetha Kunasekar, *Basic Econometrics, Fifth Edition*, McGraw Hill Publisher, New York(2016).
8. Johnston, J., and J. Di Nardo. *Econometric Methods*, McGraw-Hill,.(1997).
9. Khotsoyiannis, A.. *Theory of Econometrics*. Second Edition, Macmillan(1977)

Course code	Course title	C	H	I	E	T
19P3SME3(B)	Reliability Theory and Survival Analysis	4	5	25	75	100

Learning Objectives:

- To understand and differentiate key types of reliability
- To understand different types of censoring, and learn to estimate and interpret survival characteristics.

Learning Objectives:

On completion of the course, students should be able to

- Explain the concept of reliability and its components
- Construct a life table using the Kaplan-Meier approach
- Apply and interpret parametric and non-parametric regression models.

Unit-I

Reliability concepts and measures; components and systems; coherent systems; reliability coherent systems; cuts and paths; modular decomposition; bounds on system reliability; structural and reliability importance of components.

Unit-II

Life distributions; reliability function; hazardrate; common life distributions exponential, Weibull, Gamma, etc.Estimation of parameters and tests in these models.

Unit-III

Reliability growth models; probability plotting techniques; Hollander-Proschan and Deshpande tests for exponentiality – Basic idea so accelerated life testing.Concepts of time, Order and random Censoring, likelihood in these cases.

Unit-IV

Life tables,failure rate, mean residual life and their elementary properties. Ageing classes and their properties, Bath tub Failure rate. Estimation of survival function Actuarial Estimator, Kaplan- Meier Estimator. Estimation under the assumption of IFR/DFR.Tests of exponentiality against non- parametric classes.Total time on test,Deshpandetest.

Unit-V

Two sample problem-Gehan test, Logranktest. Mantel-Haenszeltest,Tarone Ware tests. Semi-parametric regression Cox proportional hazards model with one and several convariates. Rank test for the regression coefficients.Competing risks model, parametric and non-parametric inference for this model.Multiple decrement lifetable.

Books for Reference:

1. Barlow R.E. and Proschan F. Statistical Theory of Reliability and Life Testing, To Begin with, Silver Spring (1985).
2. Lawless J.F Statistical Models and Methods of Life Time Data, Wiley, New York. (1982).
3. BainL.J. and Engelhardt, M. Statistical Analysis of Reliability and Life Testing Models, Marcel Dekker, New York (1991).
4. Nelson, W. Applied Life Data Analysis, Wiley, New York (1982).
5. Zacks, S, Reliability Analysis, Springer, New York. (1995).
6. Miller, R.G , Survival Analysis, Wiley, New York.(1981)
7. Cox, D.R. and Oakes, D Analysis of Survival Data, Chapman & Hall, New York..(1984)
8. Gross, A.J. and Clark,V.A, Survival distribution: Reliability applications in the Biomedical Sciences, Wiley, New Delhi.(1975).
9. Kalbfleisch, J.D. and Prentice, R.L, The Statistical Analysis of Failure Time Data, Wiley, New York.(1980) .

Course code	Course title	C	H	I	E	T
19P4SMC13	Linear Models and Design of Experiments	4	6	25	75	100

Learning Objectives:

- To get the knowledge on linear models.
- To understand the concept of higher level design of experiments models and describe its purpose, importance and benefits.

Learning Outcomes:

On completion of the course, students should be able to

- Defines the terms associated with Design of Experiments and explain how to construct the models.
- Show how to calculate the main and interaction effect and interpret these models.

Unit-I

Linear models - Classification - Linear Estimators - Least square estimates - BLUE - Gauss-Markov theorem - Test of linear hypothesis.

Unit-II

Confounding in factorial experiments - Total and partial confounding in 2k and 3k factorial designs – Confounding 2k factorial designs in 2p blocks – Single replicate of 2k design – n x p factorial design.

Unit-III

Two-level fractional factorial designs - one-half and one-quarter fraction of 2k Design - Resolution III, IV and V designs.

Unit-IV

Incomplete block designs - Definitions and analysis of balanced incomplete block designs - partially balanced incomplete block designs with 2 associate classes - Lattice designs.

Unit-V

Split-plot, Split-split plot, Strip-plot and Strip-split-plot Designs, Youden square design.

Books for Study

1. Montgomery, D. C, Design and Analysis of Experiments, 8th edition, John Wiley and Sons Inc. New York. (2013)
2. Das, M.N and Giri, N.C, Design and Analysis of Experiments, Wiley Eastern, New Delhi. C (1979)
3. Searle, Linear Models, John Wiley and Sons, New York (1971).

Books for Reference

1. Mann, H. B, Analysis and Design of Experiments, Dover Publications, U.S.A (1949).
2. Federer, W. T, Experimental Designs – Theory and Applications, McMillan Co. New York (1963).
3. Kempthorne, O, Design and Analysis of Experiments, Wiley Eastern (1965).
4. Rao, C. R, Linear Statistical Inference and its Applications, 2nd edition, Wiley Eastern Ltd.(1973)
5. Johnston, J ,Econometric Methods, 3 rd edition, McGraw Hill Pub.(1984)

Course code	Course title	C	H	I	E	T
19P4SMC14	Stochastic Processes	4	6	25	75	100

Learning Objectives:

- To gain the knowledge in the field of uncertainty time factor.

Learning Outcomes:

On completion of the course, students should be able to

- Understand the theoretical concept of stochastic nature problems.
- Solve the problems related to the stochastic phenomena.

Unit-I

Notion of Stochastic Processes - Different types of Stochastic Processes - Markov Chains - Classifications of states-Limit theorems - Stationary distribution - Types of random walks.

Unit-II

Definition and transition function - Differentiability of transition function - Kolmogorov differential difference equation - infinitesimal generators - Birth and death process - Yule Process.

Unit-III

Renewal equation - stopping time - Wald's equation-Renewal theorems - Central limit theorem for renewal theory.

Unit-III

Definition-Properties of generating functions - Probability of extinction - Distribution of total number of progeny – Continuous parameter branching process.

Unit-V

Diffusion Process - Kolmogorov backward and forward diffusion equations - Wiener Process.

Book for Study

1. Basu, A. K, Introduction to Stochastic Process, Narosa Publishing House, New Delhi.(2001)

Books for Reference

1. Bhatt, U. N, Elements of Applied Stochastic Processes, John Wiley, New York (1984).
2. Karlin, S and Taylor, H. M, A First Course in Stochastic Processes, Academic Press, New York (1975).
3. Medhi, J, Stochastic Processes, 2nd Edition, Reprint 2008, New age international Publisher (2008).
4. Papoulis, A Probability random variable and stochastic processes Tata McGraw – Hill (1991)
5. Ross, S. M, Stochastic Processes, , 2nd edition , John Wiley and Sons, New York (2006).
6. Srinivasan, S. Kand Mehata, K.M, Stochastic processes, 2nd Edition, Tata McGraw – Hill (1978).

Course code	Course title	C	H	I	E	T
19P4SMC15	Programming in Python	3	4	25	75	100

Learning Objectives:

- To acquire knowledge in core python.
- To know how to compute basic statistics and statistical models through python packages.

Learning Outcomes:

On completion of the course, students should be able to

- Understand the concept of python programming and apply it in simple tasks.
- Create own python programs for statistical analysis.

Unit-I

Introduction to Python – Features of Python – Installing Python for windows – Installing packages – Writing and executing a Python Program – Getting help in Python. Data types in Python – Comments – Build-in data type – Bool data type – Sequences in Python – Sets – Literals – Determining the data type of variables – User-defined data type – Constants, Identifier and Reserved words – Name conversions in Python.

Unit-II

Operators in Python – Mathematical functions – Input and output statements – Control Statements – if, if..else and if..elif..else statements – Loops – While – for – infinite – nested. Else Suite – Break – Continue – Pass – Assert – return statements.

Unit-III

Array - Creating an array – Importing the array module – Indexing and slicing on array - Processing the array – Types of Array – Working with arrays using numpy – Creating arrays – Mathematical operations on array – Comparing, Aliasing, viewing and copying array – Dimension – Attributes of array – Multidimensional array.

Unit-IV

String and characters - Functions – Defining, calling function - Returning results – Arguments – Recursive function – Creating own models – lists - Special features of Lists – Tuples – Creating - Assessing basic operations and function to process Tuples – Operations on Tuples – Dictionaries.

Unit-V

Files in Python – Files types – Opening and closing files. Importing packages – importing data from text and excel files – Creating plots – Histogram – Scatter plot - bar and pie – Statistical analysis – Descriptive: mean – median – mode – variance and standard deviation – Inferential: t test – ANOVA – correlation and regression (only python codes).

Books for Study

1. NageswaraRao, R, Core Python Programming, 2nd edition, Dreamtech Press, New Delhi (2018).
2. Haslwanter, T, An Introduction to Statistics with Python with Application in the Life Sciences, Springer, Switzerland (2016).

Books for References

1. Wesley J. Chun, Core Python programming, 2/e, Pearson education (2010).
2. Mark Lutz, Programming Python, 4/e, O'Reilly Media (2010).
3. Mark Summerfield, Programming in Python 3, Pearson Education (2009).

Course code	Course title	C	H	I	E	T
19P4SMP4	Lab: Practical in Python	1	2	50	50	100

S.No	Programs
1	Program to Data Handling
2	Program to Merging data Sets
3	Program to Data Visualization: Bar Charts
4	Program to Data Visualization: Pie Charts
5	Program to Data Visualization: Histogram, Normality
6	Program to compute Descriptive Statistics
7	Program to compute t tests
8	Program to compute Analysis of Variance
9	Program to compute Chi-Square Test
10	Program to draw Scatter Diagram and compute Correlation
11	Program to compute Simple regression analysis
12	Program to compute Multiple Regression analysis
13	Program to compute Non-Parametric tests
14	Program to compute Matrix calculation
15	Addition and Product of two matrices

Course code	Course title	C	H	I	E	T
19P4SMP5	Statistics Practical - II	4	6	50	50	100

I	Testing of Hypotheses
1	Critical regions and power curves,
2	Testing hypothesis on the parameters of the following distributions:
1	Binomial distribution, and.
2	Normal distribution
3	Exponential Distribution
	(i) Simple Hypothesis and (ii) One sided and two sided alternatives
	Non-Parametric Tests:
1	Sign Test
2	Kolmogorov-Smirnov Test
3	Median Test
4	Wald-Wolfowitz Run Test
5	Mann-Whitney U-Test
6	Test for Randomness
3	Sequential Probability Ratio Test for simple hypotheses
II	Multivariate Analysis:
1	Maximum likelihood estimators of mean vector and dispersion Matrix.
2	Test for mean vector when dispersion matrix is known Σ .
3	Hotelling's T^2 statistic.
4	Test for covariance matrix
5	Principal component analysis.
6	Canonical correlation and canonical variables.
7	Classification problems.
8	Factor Analysis.
III	Statistical Quality Control and Reliability:
1	CUSUM Control chart
2	Modified Control chart
3	Moving Average Control chart
5	Determination of AOQ for CSP-1, CSP-2 plans for given parameter values, OC curve for CSP-1 plan.
6	Using Dodge-Romig tables to draw OC, AOQ and ASN curve for single and double sampling plans.
7	Computation of Failure Rates: Mean Time to Failure Rate, Hazard Rate.
IV	Linear Models and Design of Experiment
1	Testing linear hypothesis in linear models
2	2^4 and 3^3 factorial experiments - Total and Partial confounding.
3	Single replicate of 2^4 factorial experiment
4	2×3 Factorial experiment
5	$2 \times 3 \times 3$ Factorial experiment
6	Split-plot, Split-Split plot experiments
7	Strip plot experiment
8	BIBD
9	Lattice design
10	Youden Square design

Course code	Course title	C	H	I	E	T
19P4SME4(A)	Applied Regression Analysis	4	6	25	75	100

Learning Objectives

- To obtain a good foundation in using regression-based Statistical models to analysis the real data.

Learning Outcomes

On completion of the course, students should be able to

- Develop the deeper understanding of the linear and logistic regression model and its limitations.
- Demonstrate familiarity with the assumption associated with different statistical models.
- Critically evaluate the results of these analyses and apply remedial measures as needed.
- Interpret and discuss the results of those analyses in a broader scientific context.
- Use and understand generalizations of the linear model to binary and count data.

Unit-I

Introduction – Steps in regression Analysis – Simple linear regression model – Parameters Estimation – Test of Hypothesis – Confidence Intervals – Predictions – Measuring the quality of Fit. Multiple Linear Regressions - Parameter Estimation – Interpretations of regression - Centering and Scaling – Properties of the least square estimation – Multiple Correlation Coefficient – Inference – test of Hypotheses in a linear model.

Unit-II

Detection of model violations – Standard regression assumptions – Various types of residuals – Checking for linearity and normality assumptions – Leverage, Influence and outliers – Measure of Influence.

Unit-III

Transformation of variables - Transformation to achieve linearity - Transformation to stabilize variance – Detection and removal of Hetrosecedastic – Weighted least Square – Logarithmic and Power transformation. Autocorrelation – Durbin-waston Statistics – Removal of autocorrelation by transformation – limitations of the Durbin-waston Statistics.

Unit-IV

Analysis of collinear data – effects of collinear on Inference and forecasting – Detection of Collinearity – Variance Inflation factors - Searching of linear functions of regression coefficients - Ridge method - Selection of variables - Forward selection procedure - Backward elimination procedure - Stepwise method (algorithms only).

Unit-V

Introduction to Logistic regression – Fitting the logistic regression model – testing for significance of the coefficient – Confidence Interval Estimation – Interpretation of the fitted logistic model – Dichotomous independent variables.

Books for Study

1. Chatterjee, S and Hadi, A, S, Regression Analysis by Example, John Wiley and Sons, New York (2012).
2. Hosmer, D.W, Lemeshow, S., and Sturdivant, R. X., Applied Logistic Regression, Third Edition, John Wiley and Sons (2013).

Books for Reference

1. Belsley, D.A., Kuth, E. and Welsch, R.E. (2004) Regression Diagnostics- Identifying Influential Data and Sources of Collinearity, Wiley, New York.
2. Draper, N. R and Smith, H (1998), Applied Regression Analysis, 3rd edition, John Wiley and Sons, USA.
3. Kleinbaum, D. G and Klein, M (2010). Logistic Regression A Self – Learning Text, Third Edition, Springer, New York.
4. Neter, J., Wasserman, W., and Kutner, M. H. (1989). Applied Linear Statistical Models, Second Edition, Irwin.

Course code	Course title	C	H	I	E	T
19P4SME4(B)	Categorical Data Analysis	4	6	25	75	100

Learning Objectives:

- To introduce students to the exciting new area of analysis of categorical data
- To equip students with knowledge and techniques required to handle data- modeling situations involving categorical data.

Learning Outcomes:

On completion of the course, students should be able to

- Know the most fundamental regression models for binary, ordinal, nominal and count outcomes.
- Have an understanding of the basic principles of binary models and lay the foundation for future learning in the area.
- Know the approaches to building the binary logit and probit models.
- Be able to interpret the results of models.
- Know the foundation of multinomial logit models.

Unit-I

Categorical Response data – Inference procedures. Contingency tables – Comparison of proportions, partial association in 2 x 2 and I x J tables. Testing independence in two-way contingency tables.

Unit-II

Generalized Linear Model – For binary data & count data. Inference for & Fitting of GLMs.

Unit-III

Logistic Regression Model – Fitting & diagnostics. Conditional associations in 2 x 2 x K tables. Multinomial logit models – Baseline logit models for nominal responses & Cumulative logit model for ordinal responses.

Unit-IV

Loglinear models for two-way tables; Loglinear models for Independence & Interaction in threeway tables. Loglinear - Logit model connection. Diagnostics for checking models. Ordinal Association Models. Probit Models.

Unit-V

Comparison of dependent proportions. Conditional logistic regression for Binary Matched pairs. Marginal models for square contingency tables. Symmetry, Quasi-Symmetry & Quasi-independence.

Books for Study

1. Agresti, Alan, An Introduction to Categorical Data Analysis, 3 rd edition, John Wiley & Son, New York (2019).

Books for References

1. Bergsma, W. Croon, M.A. and Hagenaars, J.A., Marginal Models: For Dependent, Clustered, and Longitudinal Categorical Data. Springer, New York (2009).
2. Bishop, Y.M. Fienberg, S.E. and Holland, P.W., Discrete Multivariate Analysis: Theory and Practice, MIT Press, Cambridge (1975).
3. Fienberg, S.E., The Analysis of Cross-Classified Categorical Data. MIT Press, Cambridge (1980).
4. Hosmer, D.W. & Lemeshow, S, Applied Logistic Regression (John Wiley), (1989)
5. Wasserman, L, All of Statistics: A Concise Course in Statistical Inference. Springer, New York (2004).

**DEPARTMENT OF STATISTICS
THE MADURA COLLEGE (AUTONOMOUS) , MADURAI-11.**

CERTIFICATE COURSE : STATISTICAL ANALYSES USING R PROGRAMMING

DESCRIPTION:

Any data analysis is incomplete without Statistics. Statistics is the art of using data to make numerical conjectures about problems. Descriptive statistics is the art of summarizing data. After getting the data, any statistical analysis starts with descriptive statistics which aims to extract the information hidden inside the data. The tools of descriptive statistics are based on mathematical and statistical functions which are to be evaluated using the software. The statistical software's are paid as well as free. One of the most popular and highly used for data analysis statistical software is R. It is available freely with fast updates. What are the basic tools of descriptive statistics and how to use the R software for descriptive statistical analysis is the objective of the course to be taught.

CERTIFICATE COURSE : STATISTICAL PACKAGES FOR SOCIAL SCIENCES

DESCRIPTION:

This SPSS data analysis course was created for one reason, which is to help anyone without statistics or mathematics background to analyze data in SPSS, choose the right descriptive statistics technique and write up the result of the findings with confidence. The course covers everything from entering data into SPSS to interpreting the result and offers easy step-by-step guide to mastering descriptive statistics in SPSS. Firstly, we will take you through the SPSS interface, how to work the system and avoid some of the mistakes people make when choosing variable types and format in SPSS. After that, we will dive into entering data into SPSS, sorting, editing and removing data, and most importantly how to transform any variable into a new variable with recode functions. We will then focus on descriptive statistics in SPSS and you will learn how to run the major descriptive statistics like Mean, Median, Mode, Standard Deviation and One-Samples t-test etc. You will learn how to create graphs, plots and charts in SPSS and how to manipulate them to suit your needs.

CERTIFICATE COURSE : STATISTICAL DATA ANALYSIS USING EXCEL

DESCRIPTION:

Any data analysis is incomplete without Statistics. Statistics is the art of using data to make numerical conjectures about problems. Descriptive statistics is the art of summarizing data. After getting the data, any statistical analysis starts with descriptive statistics which aims to extract the information hidden inside the data. The tools of descriptive statistics are based on mathematical and statistical functions which are to be evaluated using the software. The statistical software's are paid as well as free. One of the most popular and highly used for data analysis statistical software is Excel. It is available freely with fast updates. What are the basic tools of descriptive statistics and how to use the Excel for descriptive statistical analysis is the objective of the course to be taught.

CERTIFICATE COURSE : QUANTITATIVE APTITUDE FOR COMPETITIVE EXAMINATIONS

DESCRIPTION:

Quantitative reasoning (QR) is a conceptual process that employs one or more of a family of mathematical or logical methods to analyze and solve problems in a variety of Quantitative reasoning is multi-disciplinary and invites a wide diversity of disciplines and departments to offer courses to satisfy this requirement. We describe here the requirements for the course in Quantitative Reasoning, focusing on Mathematical, Logical, and Statistical Foundations.

EVALUATION PATTERN:

Evaluation is carried out based on objective and descriptive type questions. Out of 100%, 40% of marks are obtained by assignment and Internal test (best of 3 assignments out of the total 5 assignments) and other 60% of marks from final exam score.

<i>DEPARTMENT OF STATISTICS</i>			<i>Certificate Course</i>				
Course Type	Course Code	Course Code Course Title	Credits	Total Contact Hours	CIA	Ext	Total
Value Added Course		Statistical Analyses Using R Programming	2	30			

Learning Objectives:

- To enable the students to understand the basic descriptive statistics.
- To learn the basic R Programming.
- To develop knowledge and understand theory in practical application of statistical techniques.

Learning out comes:

- In term of knowledge, demonstrate their understanding of descriptive statistics by practical application of quantitative reasoning and data visualization.
- In terms of skills, use R to conduct statistical analyses.

UNIT - 1:

Introduction to R software: Using the R console - A sample R session - R as calculator – Data vector – Build – in commands and missing data – Basic matrix computation.

UNIT – 2:

Introduction to Descriptive Statistics: Variable and type of data - Frequency – Absolute frequency – Relative frequency – Frequency distribution – Cumulative distribution – Graphics and plots.

UNIT – 3:

Measure of Central tendency – Measure of dispersion – Variation in data - Moments: Raw and Central moments – Skewness and Kutosis.

UNIT – 4:

Association of variables: Univariate and bivariate Scattor plot – Quantile – Quantile and Three dimensional plot – Pearson’s correlation coefficient and Rank correlation.

UNIT – 5:

Association of variables for discrete and countable data: Contingency table, Chi-square statistics, Cramer’s V statistics, Contingency coefficient. Fitting of Linear models: Least square method (one and more than onevariable) – R commands.

Books for reference:

- John Verzani (2009), Using R for Introductory Statistics, Chapman & Hall/CRC, Ebook/pdf., UK.
- Sudha G. Purohit, Sharad D. Gore and Shilaja R. Desmukh (2009), Statistics Using R Language, Narosa, Chennai.
- Madhanagopal, R., Michael Rani Mary Kirba and Subramanian, P.V. (2013),A handbook on R- Language: A programing Software for statistical computing and graphics, Study material of UG Statistics, Madras Christian College, Chennai.

<i>DEPARTMENT OF STATISTICS</i>			<i>Certificate Course</i>				
Course Type	Course Code	Course Code Course Title	Credits	Total Contact Hours	CIA	Ext	Total
Value Added Course		Statistical Packages for Social Sciences	2	30			

Learning Objectives:

- ❖ To introduce the statistical Package for Social Sciences
- ❖ To understand the bases of the packages SPSS and statistics

Learning out comes:

- ❖ Understand the main features of SPSS
- ❖ Perform descriptive analyses with SPSS
- ❖ Perform common parametric and non-parametric tests
- ❖ Perform simple regressions and multivariate analyses

Unit – I

Introduction to Statistics – Population and Sample – Variables and Scales – frequency Distribution – Normal Distribution – Statistics and Parameters – Hypothesis testing.

Unit – II

Introduction to SPSS - Launching SPSS – Opening a data file in SPSS – SPSS Data Editors – Statistical Analysis – Editing and Manipulating data – Missing Values – Editing and Copying SPSS output – Closing SPSS.

Unit – III

Descriptive Statistics – Measuring Central tendency – Measure of Dispersion – Descriptive Statistics with SPSS – Charts and Graphs.

Unit – IV

Comparing Averages – Parametric tests: Students t test – two sample t test – Paired t test – ANOVA – Nonparametric tests: Mann-whitney test –Wilcoxon Matched – Paris sample test.

Unit – V

Correlation analysis – Statistical Association between variables – Correlation – Simple and Multiple – Type of correlation – Graphical Methods – Pearson’s correlation coefficient – Bivariate analysis with SPSS – Rank Correlation – Multiple correlation — Simple and Multiple Regression analysis – Chi square test.

Books for Study

1. Rajathi, A. and Chandran, P. SPSS for you, MJP Publishers, Chennai (2010).

Books for References

1. Mishra, A. K. A Handbook on SPSS for research Work, Himalaya Publication House (2019).
2. Andy Field, Discovering Statistics Using SPSS, SAGE Publications, London (2006).

<i>DEPARTMENT OF STATISTICS</i>			<i>Certificate Course</i>				
Course Type	Course Code	Course Code Course Title	Credits	Total Contact Hours	CIA	Ext	Total
Value Added Course		Statistical Data Analysis Using Excel	2	30			

Learning Objectives:

- ❖ To introduce statistical Data analysis through Excel.
- ❖ To develop knowledge and understand theory in practical application of statistical techniques.

Learning out comes:

- ❖ Demonstrate their understanding of descriptive statistics by practical application and data visualization.
- ❖ Use Excel to conduct statistical analyses.

Unit – I

Getting started with excel – Spread Sheet – Work books and Worksheets – Working cells Printing and Saving - Excel Add-Ins – Working with data – Data entry - Formats – Formulas and Functions.

Unit – II

Introducing excel chats – Introducing scatter plot – Editing a chart – Identifying data points – Creating Bubble plots – Breaking a scatter plot into categories – plotting several variables – Bar charts – Pie charts – line charts.

Unit – III

Describing your data –Variables and descriptive Statistics – Frequency tables – Working with histograms – Distribution statistics – Measure of central tendency – mean – median and mode – measure of variability – percentiles and Quartiles – Measure of shape – outliers – Boxplots.

Unit – IV

Statistical Inference – t test – test for equality of variance - ANOVA – Non-parametric test – Tables - Pivot tables – Two way table – Person chi-square statistics.

Unit – V

Correlation analysis – Creating correlation matrix – Scatter plot matrix – Simple linear regression – multiple regression analysis.

Books for Study

Berk, K.N and Carey, P. Data Analysis with Excel, 3rd edition, Brooks-Cole, Boston, USA (2010).

Books for references

Guerrero, H. Excel Data analysis Modeling and Simulation, Springer, London (2010).

<i>DEPARTMENT OF STATISTICS</i>			<i>Certificate Course</i>				
Course Type	Course Code	Course Code Course Title	Credits	Total Contact Hours	CIA	Ext	Total
Value Added Course		Quantitative Aptitude for Competitive Examinations	2	30			

Learning Objectives:

- ❖ To enhance the problem solving skills
- ❖ To improve the basic mathematical skills
- ❖ to help students who are preparing for any type of competitive examinations.

Learning out comes:

- ❖ Interpret and communicate their results in various forms, including in writing
- ❖ To apply mathematical analysis of data to make connections, draw conclusions and solve problems.

Unit – I

Number Series – Blood Relation – Rati and Proportion – Percentage and Averages – Profit and Loss – Mixtures and Allegations – Surds and Indices – Tine and Distance

Unit – II

Mensuration – Cylinder – Cone - Sphere – Simple Interest and Compound Interest

Unit – III

Charts and Graphs – Bar Chart , Pie Chart, Line graph – Permutation and Combination - Probability

Unit – IV

Sitting Arrangements, Tabulation, Logical Reasoning, Syllogism, Input, Output, Coding, Decoding, Alphanumeric Series, Ranking, Direction, Alphabet Test, Coding Inequalities, Non –Verbal Reasoning.

Unit – V

Number System, Binary Conversion, History of Computers, Hardware, Software, Networking (Lan,Wan), Internet (Concept, History, Working, Environment, Application)

Books for References

1. Quantitative Aptitude by Dr. R, S. Agawal.
2. <http://www.visionias.net/2016/12/rs-aggarwal-quantitative-aptitude-free.html>
3. <https://www.edutechlearners.com/quantitative-aptitude-by-r-s-aggarwal-pdf/>