



THE MADURA COLLEGE

An Autonomous Institution affiliated to Madurai Kamaraj University

Re-accredited (3rd cycle) with 'A' grade by NAAC

Vidya Nagar, T.P.K. Road, Madurai – 625 011

DEPARTMENT OF STATISTICS

Course Outcomes mapped with POs

PROGRAMME : B.Sc. (Statistics)

| Course Code | Course Title | CLO | Mapping of CO with PO | | | | |
|-------------|------------------|--|-----------------------|-----|-----|-----|-----|
| | | | PO1 | PO2 | PO3 | PO4 | PO5 |
| 20U1TLA1 | இக்கால இலக்கியம் | கவிதைகள் வெளிப்படுத்தும் மனித அன்பு, பெண்நிலைகள், மொழியின்சிறப்பு, தொழிலாளர் நிலை போன்றவற்றை அறியச் செய்தல். | - | 1 | 1 | 2 | 2 |
| | | கவிதைகளின் கருத்துப் பரிமாற்றம், உயர்மனிதச் செயல்பாடுகளை ஊக்குவித்து நடைமுறையில் பின்பற்றல். | - | 2 | 2 | 3 | 2 |
| | | கதையின் உள்ளடக்கம்,வடிவம் -மாந்தர் எண்ணம், உணர்வு, நடத்தை, சமூகப் பண்பாட்டுச் செயல்பாட்டில்- ஈடுபடுதல். | - | 3 | 1 | - | 2 |
| | | இலக்கிய வரலாற்றை நிரல்படுத்திப் படைப்பாளிகளின் அறிவுத்திறத்தில் ஈடுபடச்செய்தல். | 3 | - | 1 | - | 2 |
| | | மொழியின் சிறப்புகளைத் தொகுத்தல். படைப்பூக்கத்துடன் பிழை நீக்கித் தனித்துவமாக எழுதத் தூண்டல். | - | - | 3 | - | 2 |
| 20U1HLA1 | HINDI 1 | Use of singular, plural, numbers | - | 1 | 1 | 2 | 2 |
| | | Use of sentences and choosing the right answer | - | 2 | 2 | 3 | 2 |
| | | Able to translate and correct the sentences | - | 3 | 1 | - | 2 |
| | | Able to write answers questions from prose | 3 | - | 1 | - | 2 |
| | | Able to identify directions and seasons | - | - | 3 | - | 2 |
| 20U1SLA1 | SANSKRIT I | Gain basic knowledge about Devanagari Script and understand Male/ Female/ Neuter Gender Words | - | 1 | 1 | 2 | 2 |
| | | Identify Person/Number/Tense | - | 2 | 2 | 3 | 2 |
| | | Know to substitute word without affecting Number / Tense/ Grammar and to enhance students attitude towards good behaviour through Subhashitani (Good says) | - | 3 | 1 | - | 2 |
| | | Understand the Sanskrit Literature like Vedas, Vedangas and Epic Literature | 3 | - | 1 | - | 2 |
| | | Translate from Sanskrit to English in Present / Future Tense | - | - | 3 | - | 2 |
| 20U1NEN1 | ENGLISH-I | Use proper Parts of Speech while framing simple sentences | - | 2 | 3 | 2 | - |
| | | Express practical skills of various types of writing dialogues and comprehend content in English | - | 2 | 3 | 3 | - |

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| | | Use proper tense forms in sentences and Classify kinds of sentences; convert from one type to another. | - | 2 | 2 | 2 | - |
| | | Fill different challans , issue cheques, fill railway form in real life contexts and prepare advertisements on their own. | - | 2 | 2 | 2 | - |
| | | Appreciate a literary work for its genre and evaluating ideas. To use language skills necessary for social,academic and professional purposes | - | 2 | 3 | 3 | - |
| 20U1VEN1 | VALUE EDUCATION AND PROFESSIONAL ETHICS | Describe the various value system and its familiarity | 3 | - | 2 | 2 | 3 |
| | | List forty virtues and eighty values | 3 | - | 2 | 2 | 3 |
| | | Outline the foundations on value oriented moral values | 3 | - | 2 | 2 | 3 |
| | | Focus on relevance of various religion values and its similarities | 2 | - | 2 | 2 | 3 |
| | | Build a value system and ethics in Education, Business and Teaching | 3 | 2 | 2 | 2 | 3 |
| 20U1MAC1 | ALLIED MATHEMATICS-I | Apply DeMoivre's theorem to solve problems on powers of trigonometric functions. | 3 | 2 | - | - | 1 |
| | | Use the concept of differentiation to find derivatives of inverse trigonometric functions, implicit function and logarithmic functions. | 3 | 2 | - | - | 1 |
| | | Evaluate integrals using integration by parts and apply integration to compute double and triple integrals. | 3 | 2 | - | - | 1 |
| | | 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. | 3 | 2 | - | - | 1 |
| | | Use the concept of integration to solve numerical problems. | 3 | 2 | - | - | 1 |
| 20U1SMC1 | DESCRIPTIVE STATISTICS | Identifies the need of Classification and Tabulation and explain different methods of data collection. | 3 | 2 | - | - | 1 |
| | | Analysis statistical data using various measure of central tendency and dispersion and location. | 3 | 2 | - | - | 1 |
| | | Evaluates and interprets the nature of skewness and kurtosis | 3 | 2 | - | - | 1 |
| | | Construct and analysis graphical display to summarize data. | 3 | 2 | - | - | 1 |
| | | Identify the direction and strength of a correlation between two factors and Recognize regression analysis applications for purpose of description and prediction | 3 | 2 | - | - | 1 |
| 20U1SMC2 | PROBABILITY THEORY | 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 | 2 | 1 | - | - | 2 |
| | | Construct discrete and continuous random variables | 3 | 2 | - | - | 2 |
| | | Describe the main properties of probability distribution and random variables. | 2 | 1 | - | - | 3 |
| | | Apply general properties of the expectation and variance operators. | 1 | 2 | - | - | 3 |
| | | Recognize situation in which the central limit theorem applies. | 1 | 3 | - | - | 2 |
| 20U2TLA2 | | சிறநிலக்கியங்கள் குறித்த அடிப்படைக் கருத்துகளைப் பெறுவர். | 1 | - | 3 | - | 2 |

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| | இடைக்கால இலக்கியமும் உரைநடையும் | பக்தி இலக்கியங்கள் வெளிப்படுத்தும் சமயம் சார்ந்த செய்திகளைப் புரிவர். | - | - | 2 | - | 3 |
| | | சைவ வைணவ சித்தாந்த இறை தத்துவக் கருத்துகளைத் தெரிந்து நடைமுறைப்படுத்திக்கொள்வர். | 1 | - | 3 | 1 | 2 |
| | | இலக்கிய வரலாறு தரும் வாழ்வியல் கருத்துகளைப் பொருத்திப் பார்க்கும் திறன் பெறுவர். | 2 | 1 | 3 | 1 | 3 |
| | | மொழியின் நுட்பங்களின் மூலமாக ஆளுமைத் திறனை வளர்த்துக் கொள்வர். | - | - | 3 | 1 | 1 |
| 20U2HLA2 | HINDI 2 | Write stories and draft letter | 1 | - | 3 | - | 2 |
| | | Use of proverbs and phrases in communication | - | - | 2 | - | 3 |
| | | Learning morals from great Indian leaders | 1 | - | 3 | 1 | 2 |
| | | Writing essays with creativity | 2 | 1 | 3 | 1 | 3 |
| | | Using proverbs in speech and having knowledge of days in Hindi | - | - | 3 | 1 | 1 |
| 20U2SLA2 | SANSKRIT II | Gain basic knowledge about the origin of Sanskrit Kavya Literature | 1 | - | 3 | - | 2 |
| | | Understand Sanskrit Poetic Literature and Style of Writing Poems | - | - | 2 | - | 3 |
| | | Compare Poetic Literature with Modern Life and to classify and discuss the importance of early literature | 1 | - | 3 | 1 | 2 |
| | | Practice creativity and demonstrate different aspects of life as portrayed in Sanskrit Literature | 2 | 1 | 3 | 1 | 3 |
| | | Learn Sanskrit Bhakti Literature and Tamil Chemmozhi Literature at basic levels | - | - | 3 | 1 | 1 |
| 20U2NEND2 | ENGLISH-II | Use linkers to compose a coherent paragraph and to examine language skills through core subjects | - | 2 | 3 | 2 | - |
| | | Use singular, plural, present and past tenses. 'will' and 'going to' to engage in meaningful conversations and writing tasks | - | 2 | 3 | 3 | - |
| | | Classify appropriate pronunciation for "c" as "s", "k" and "ch" and classify letters / sound "p, b, th, v, w, tion" appropriately. | - | 2 | 2 | 2 | - |
| | | 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 | - | 2 | 2 | 2 | - |
| | | Appreciate a literary work for its genre and evaluating ideas. | - | 2 | 3 | 3 | - |
| 20U2EVS1 | ENVIRONMENTAL SCIENCE & GENDER STUDIES | Able to list out various ecosystems and their interactions | 2 | - | - | 1 | 3 |
| | | To appreciate the nuances behind food webs and food chains | 2 | - | 2 | 1 | 3 |
| | | Able to differentiate the importance of Hotspots and mega diversity centres. | 2 | 3 | - | 1 | 3 |
| | | Able to identify different types of pollutions and provide solutions | 2 | - | - | 3 | 3 |
| | | To analyze and identify the behavioral problems among student community with reference to gender. | 2 | 3 | - | 3 | 3 |
| 20U2MAC2 | ALLIED MATHEMATICS-II | Solve first order differential equations utilizing the standard techniques for separable, exact, linear, homogeneous and non-homogeneous differential equation. | 3 | 2 | - | - | 1 |
| | | Solve 2 nd and higher order differential equations with constant coefficients. | 3 | 2 | - | - | 1 |

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| | | Construct partial differential equations and to solve first order partial differential equations | 3 | 2 | - | - | 1 |
| | | Solve Laplace transform and inverse transform of simple functions and application to differential equations with constant coefficients. | 3 | 2 | - | - | 1 |
| | | Apply various interpolation methods and finite difference concepts. | 3 | 2 | - | - | 1 |
| 20U2SMC3 | PROBABILITY DISTRIBUTIONS | Recognize cases where the Discrete Uniform, Binomial and Poisson Distributions could be an appropriate model and apply it in variety of problems. | 3 | 3 | - | - | 2 |
| | | Explain the Moment generating function and Characteristic function of Negative Binomial, Geometric, Hypergeometric and Multinomial distributions. | 3 | 2 | - | - | 1 |
| | | Analyze and apply the concepts of Continuous probability distributions such as Uniform, Exponential and Normal distributions to various business and other real life problems | 3 | 3 | - | - | 2 |
| | | Determine the Beta and Gamma distributions and its properties | 3 | 2 | - | - | 1 |
| | | Apply the appropriate testing of student's test, F-test and Chi-square test for independence and goodness of fit. | 3 | 2 | - | - | 2 |
| 20U2SMC4 | MATRIX THEORY | Able to apply the reverse law to solve the system of linear equations and also classify the various types of Matrices. | 3 | 3 | - | - | 2 |
| | | Understanding the concept of Elementary transformations to evaluate the Rank of Matrices and Analyze the invariance of matrices and Normal forms of Matrices. | 3 | 3 | - | - | 2 |
| | | Compute Eigen Values and Eigen vectors of the matrices and explain the concept of Cayley Hamilton theorem. | 3 | 2 | - | - | 2 |
| | | Interpret the conditions for consistency for the system of equations. | 2 | 2 | - | - | 1 |
| | | Construct and classify the Quadratic forms of a matrix. | 2 | 2 | - | - | 1 |
| 20U2NCC1 | INTRODUCTION TO NCC | Understand the structure, organization of NCC and armed forces. | 2 | 1 | 1 | 2 | 2 |
| | | Develop leadership qualities and general knowledge from current affairs. | 2 | 1 | 1 | 1 | 2 |
| | | Involve in social service activities and act in the emergency situation. | 2 | 1 | 1 | 2 | 1 |
| | | Develop qualities like character, comradeship and discipline through regular training and field work. | 2 | 1 | 1 | 1 | 2 |
| | | Improve secular outlook, spirit of adventure, ethics and ideals of selfless service. | 2 | 1 | 1 | 1 | 2 |
| 20U2NPN | INTRODUCTION TO NATIONAL SERVICE SCHEME | To understand the aims and principles of NSS , the duties and responsibilities of an NSS volunteer to the society. | 2 | 1 | 2 | 3 | 3 |
| | | To know the administrative structure of NSS, its plans and its execution. | 2 | 1 | 2 | 3 | 3 |
| | | To acquire leadership qualities and democratic attitudes through the participation in various social activities | 2 | 1 | 2 | 3 | 3 |
| | | To aid in character building and develop qualities like comradeship and discipline through regular training and field work. | 2 | 1 | 2 | 3 | 3 |
| | | To develop the spirit of humanity and ideals of selfless service. | 2 | 1 | 2 | 3 | 3 |


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| 20U2YRC1 | INTRODUCTION TO YOUTH RED CROSS | Equip to conduct social and health awareness programmes. | 2 | 1 | 1 | 2 | 3 |
| | | Making awareness regarding red cross service and social activities | 2 | 1 | 1 | 2 | 3 |
| | | Encourage and to youth members and other students to contribute in red cross activities. | 2 | 1 | 1 | 2 | 3 |
| | | Develop qualities like compassion, kindness and caring sense through regular training and field work. | 2 | 1 | 1 | 2 | 3 |
| | | Improve kind heartedness, spirit of humanity and ideals of selfless red cross service | 2 | 1 | 1 | 2 | 3 |
| 20U2PED1 | HISTORY OF PHYSICAL EDUCATION | Know physical education in national and international level. | 2 | 1 | 1 | 2 | 2 |
| | | Understand ancient Olympics, modern Olympics, first aid and yoga | 2 | 1 | 1 | 1 | 2 |
| | | Comprehend games rules and ground measurements | 2 | 1 | 1 | 2 | 1 |
| | | Develop their physique in good shape through regular work outs and exercises. | 2 | 1 | 1 | 1 | 2 |
| | | Realize the need of physical education. | 2 | 1 | 1 | 1 | 2 |
| 20U3TLA3 | காப்பிய இலக்கியமும் நாவலும் | மனித அறம், அன்பு, செய்ந்நன்றி போன்றவற்றை அறியச் செய்தல். | - | 1 | 1 | 2 | 2 |
| | | அற மனப்பாங்கினை ஊக்குவித்துப் பின்பற்றல். | - | 2 | 2 | 3 | 2 |
| | | மனித அறம், பத்தி, உதவி செய்யும் மனப்பான்மை போன்றவற்றில் ஈடுபடுதல். | - | 3 | 1 | - | 2 |
| | | காவிய ஆசிரியர்களின் படைப்புதிறனை வெளிப்படுத்த வடிவ அமைப்பினை விளக்கி ஈடுபடச் செய்தல். | 3 | - | 1 | - | 2 |
| | | படைப்பின் பல் வடிவங்களை விளக்கிப் படைப்பாக்கத்தினை வெளிக் கொணரல். | - | - | 3 | - | 2 |
| 20U3HLA3 | HINDI 3 | Identify noun, pronoun and adjective in sentences | - | 1 | 1 | 2 | 2 |
| | | Examine how a text interacts with a reader in the reading process for meaning and interpretation | - | 2 | 2 | 3 | 2 |
| | | Classify rhymes, beats, sound pattern in a poem | - | 3 | 1 | - | 2 |
| | | Explain various aspects of storytelling in terms of plot, character and form in One Act play | 3 | - | 1 | - | 2 |
| | | Write simple sentences without committing errors of spelling and grammar | - | - | 3 | - | 2 |
| 20U3SLA3 | SANSKRIT III | Gain knowledge of Indian Tradition through the origin of Popular Sanskrit Tales and Fables | - | 1 | 1 | 2 | 2 |
| | | Achieve Moral Values through Sanskrit Fables – Pancatantra | - | 2 | 2 | 3 | 2 |
| | | Comprehend Sanskrit Poetic Literature, Style of Writing Poems and Know the deepness of Indian Sanskrit Prose Literature | - | 3 | 1 | - | 2 |
| | | Understand the Sanskrit Prosody through Alankaras | 3 | - | 1 | - | 2 |
| | | Learn Sanskrit Prose Literature and Style of Writing Prose | - | - | 3 | - | 2 |
| 20U3NEND3 | ENGLISH-III | Discover the deviant use of English both in written and spoken forms | - | 2 | 3 | 2 | - |
| | | Explain the need for reference/study skills Make/take notes systematically in an organized manner | - | 2 | 3 | 3 | - |

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| | | Choose language for speaking with confidence in an intelligible and acceptable manner | - | 2 | 2 | 2 | - |
| | | Develop an interest for reading and read independently unfamiliar texts with comprehension | - | 2 | 2 | 2 | - |
| | | Examine and analyze a genre on their own | - | 2 | 3 | 3 | - |
| 20U3SAC3 | ADVANCED EXCEL TECHNIQUES | Describe about the workbook and worksheet and its basic operations. | 2 | 2 | 2 | 1 | 1 |
| | | Identify the significance of using cell ranges and tables. | 2 | 1 | 2 | 2 | 1 |
| | | Focus on the importance of function and formulas. | 2 | 3 | 3 | 3 | 2 |
| | | Apply various measures to analyze records and data objects with its validation. | 3 | 2 | 2 | 1 | 3 |
| | | Correlate different types of pivot table. | 3 | 3 | 3 | 2 | 3 |
| 20U3SAP1 | ADVANCED EXCEL TECHNIQUES-LAB | Describe about the workbook and worksheet and its basic operations. | 2 | 2 | 2 | 1 | 1 |
| | | Identify the significance of using cell ranges and tables. | 2 | 1 | 2 | 2 | 1 |
| | | Focus on the importance of function and formulas. | 2 | 3 | 3 | 3 | 2 |
| | | Apply various measures to analyze records and data objects with its validation. | 3 | 2 | 2 | 1 | 3 |
| | | Correlate different types of pivot table. | 3 | 3 | 3 | 2 | 3 |
| 20U3SSBE1 | STATISTICAL PRACTICAL-I | Understand the diagrammatic and graphical representation data and solving measures of central tendency problems, Measures of dispersion problems, Skewness and Kurtosis problems using calculator. | 3 | 3 | 3 | 2 | 2 |
| | | Use the concept of correlation and regression coefficients properties and solve the problems using calculator. | 3 | 2 | 3 | 2 | 2 |
| | | Understand the concept of discrete and Continuous distributions and solve the problems in Binomial, Poisson, and normal distribution | 3 | 3 | 3 | 2 | 2 |
| | | Analyzing the various types of algebraic operations of matrices of order $p \times q$ ($p, q \leq 4$) and find the rank of a matrix of order $p \times q$ ($p, q \leq 4$) problem solving. | 3 | 2 | 3 | 2 | 2 |
| | | Solve system of linear equation problems and verification of Cayley – Hamilton theorem problems. | 3 | 2 | 3 | 2 | 2 |
| 20U3SMC5 | OPTIMIZATION TECHNIQUES | Describe the theoretical workings of canonical and standard form and simplex method for linear programming and demonstrate their iterations. | 3 | 3 | 3 | 2 | 2 |
| | | Analyzing the specialized linear programming problems like the transportation and Assignment problems using appropriate method. | 3 | 3 | 3 | 2 | 2 |
| | | Identify the solution of linear programming model of two person zero sum game. | 3 | 3 | 3 | 2 | 1 |
| | | Estimate the various costs related to replacement policy for items and understand the various selective cost techniques and its applications. | 3 | 2 | 3 | 2 | 2 |
| | | Illustrate the constructions of networks of a project and optimal scheduling using CPM and PERT. | 3 | 2 | 3 | 2 | 1 |
| 20U3SMC6 | SAMPLING TECHNIQUES | Understand the basic concepts of Sampling Methods, Equal & Unequal Sampling techniques. | 3 | 3 | 3 | 2 | 2 |

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| | | Characterize a Systematic Sampling Schemes & to solve the application problems. | 3 | 2 | 2 | 3 | 2 |
| | | Identify the Stratified & Cluster Sampling techniques, to solve application problems | 3 | 3 | 2 | 3 | 3 |
| | | Applying the Principles of Ratio Estimation | 3 | 2 | 2 | 2 | 3 |
| | | Classify the Non Sampling Errors & to estimate Distribution function. | 3 | 3 | 3 | 3 | 2 |
| 20U4TLA4 | பண்டைய இலக்கியமும் நாடகமும் | பண்டையகால மக்களின் அகம் மற்றும் புறம் சார்ந்த வாழ்வியல் நிலைகளை அறியச்செய்தல். | - | 1 | 1 | 2 | 2 |
| | | தனிமனித அறம், பொது அறம் ஆகியவற்றை நீதிநூல்களின் வாயிலாக அறியச்செய்தல். | - | 2 | 2 | 3 | 2 |
| | | நாடகம் தொடர்புடைய சிந்தனைகள், உணர்வுகள், உள்ளடக்கம், நடை போன்றவற்றைப் புரியவைத்தல். நாடகம் நடிக்கப் பழக்குதல். | - | 3 | 1 | - | 2 |
| | | தமிழ் இலக்கிய வரலாற்றையும் பண்பாட்டையும் அறியச்செய்தல். | 3 | - | 1 | - | 2 |
| | | மொழியின் சிறப்புகளுடன், அகப்பொருள் மற்றும் புறப்பொருள்களின் திணை, துறைகளை அறியச்செய்தல். | - | - | 3 | - | 2 |
| 20U4HLA4 | HINDI 4 | Apply speak, read and write Hindi at the basic level. | - | 1 | 1 | 2 | 2 |
| | | Identify rhyme, beats, sound pattern in a poem. | - | 2 | 2 | 3 | 2 |
| | | Analyse novel closely, paying attention to linguistic and stylistic variations. | - | 3 | 1 | - | 2 |
| | | Use language for speaking with confidence in an Acceptable manner | 3 | - | 1 | - | 2 |
| | | Write simple sentences without committing errors of grammar | - | - | 3 | - | 2 |
| 20U4SLA4 | SANSKRIT IV | Learn about the Origin of Indian Sanskrit Drama Literature | - | 1 | 1 | 2 | 2 |
| | | Achieve Moral Values through Indian Sanskrit Drama Literature – Karnabharam | - | 2 | 2 | 3 | 2 |
| | | Realize Sanskrit drama Literature, method of Writing Dramas and the depth of Indian Sanskrit Drama Literature | - | 3 | 1 | - | 2 |
| | | Understand the importance and role of Sanskrit drama Literature and know great Dramatists | 3 | - | 1 | - | 2 |
| | | Learn Ethical Values of Human Life through Various Authors and their Dramas | - | - | 3 | - | 2 |
| 20U4NEN4 | ENGLISH-IV | Examine their own ability to improve their own competence in using the language and Show their learnt useful interpersonal soft skills. | - | 2 | 3 | 2 | - |
| | | Re-state a piece of text either orally or in writing with learnt soft skills | - | 2 | 3 | 3 | - |
| | | Apply their useful creative skill in writing like CVs, drafting and reading | - | 2 | 2 | 2 | - |
| | | Investigate the importance of writing in academic life, analyze graphs,charts,grids and other visual supports to understand a text. | - | 2 | 2 | 2 | - |
| | | Apply connecting ideas to continue discussions and apply diagrammatic information – interpretations maps, graphs, pie- charts and note-taking. Communicate with others effectively. | - | 2 | 3 | 3 | - |
| 20U4SAC4 | PROGRAMMING WITH C++ | Describe the concepts of oops and its benefits. | 2 | 1 | 2 | 1 | 1 |
| | | Classify the various types of function. | 2 | 1 | 1 | 1 | 1 |
| | | Apply constructors and overloading concepts in real time environment. | 2 | 1 | - | 2 | 2 |
| | | Construct the program using inheritance. | 1 | 2 | - | 2 | 3 |

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| | | Focus on the importance of Files and Exception handling. | 1 | 2 | 1 | 2 | 3 |
| 20U4SAP2 | PROGRAMMING WITH C++ -LAB | Describe the concepts of oops and its benefits. | 2 | 1 | 2 | 1 | 1 |
| | | Classify the various types of function. | 2 | 1 | 1 | 1 | 1 |
| | | Apply constructors and overloading concepts in real time environment. | 2 | 1 | - | 2 | 2 |
| | | Construct the program using inheritance. | 1 | 2 | - | 2 | 3 |
| | | Focus on the importance of Files and Exception handling. | 1 | 2 | 1 | 2 | 3 |
| 20U4SSBE2 | STATISTICAL FORECASTING | Multiple and Partial Correlation- Yule's Notation- Coefficient of multiple correlation properties of multiple correlation coefficient- coefficient of partial correlation- Multiple correlation in terms of Total and partial correlation. | 2 | 3 | - | 2 | - |
| | | Expression for Regression coefficient in terms of Regression coefficients of lower order- Expression for partial correlation coefficients in terms of partial correlation coefficient of lower order | 2 | 3 | - | - | - |
| | | Association of Attributes-Introduction-Notation and Terminology-Class frequencies-Order of classes and class frequencies- Consistency of Data- Association and Disassociation-Problems. | 3 | 2 | - | - | 2 |
| | | Association of three Attributes-Consistency of Data- Partial Association - Problems. | 3 | 2 | - | 2 | 2 |
| | | Interpolation and Extrapolation-Introduction-Methods of Interpolation- Extrapolation-Problems. | 3 | 2 | 1 | 1 | 2 |
| 20U4SMC7 | STATISTICAL ESTIMATION THEORY | Apply the properties of point estimator such as Consistency, Unbiasedness, Sufficiency. | 3 | 3 | - | - | 2 |
| | | Find minimum variance unbiased estimator. | 3 | 3 | - | - | 2 |
| | | Obtain estimators using methods of estimation. | 3 | 2 | - | - | 2 |
| | | Construct Confidence Interval and acquire the knowledge of Interval estimation. | 2 | 2 | - | - | 1 |
| | | Infer the concepts of Bayes estimation in different fields of applications. | 2 | 2 | - | - | 1 |
| 20U4SMP1 | DATA ANALYSIS IN SPSS PACKAGE | Define the statistical terms and its frequency | 3 | 2 | 2 | - | 3 |
| | | Construction of charts using various data | 3 | 2 | 2 | - | 3 |
| | | Describe the procedure to compute descriptive statistical measure | 3 | 2 | 2 | - | 3 |
| | | Analysis the data relationship using correlation and Predict the variation using regression also fitting the curve estimation. | 3 | 2 | 2 | - | 3 |
| | | Measure the probability of an events by Binomial, Poisson and Normal distribution. | 3 | 2 | 2 | - | 3 |
| 20U4NCC2 | FIELD TRAINING IN NCC | Understand the geography, important world organizations and will do various drills with & without arms. | 2 | 2 | 1 | 2 | 2 |
| | | Read maps and related sign systems. | 2 | 1 | 1 | 2 | 1 |
| | | Comprehend the types of weapons, field crafts and battle crafts. | 2 | 1 | 1 | 2 | 2 |
| | | Develop qualities like character, comradeship and discipline through regular training and field work. | 2 | 1 | 1 | 1 | 2 |
| | | Improve secular outlook, spirit of adventure, ethics and ideals of selfless service. | 2 | 1 | 1 | 1 | 2 |

| | | | | | | | |
|-----------------|--|---|---|---|---|---|---|
| 20U4NPN | COMMUNITY SERVICES | To provide an opportunity to become responsible members of the society by taking part in community service. | 2 | 2 | 1 | 3 | 2 |
| | | To enable students acquire life skills and knowledge, through the involvement in environmental awareness activities | 2 | 2 | 1 | 3 | 2 |
| | | To understand gender difference and learn to give equal respect to members of the opposite gender, develop service spirit and participate collectively in community programmes. | 2 | 2 | 1 | 3 | 2 |
| | | To develop qualities like compassion, kindness and caring sense through regular training and field work in health awareness programmes. | 2 | 2 | 1 | 3 | 2 |
| | | To become responsible citizens with a sound knowledge of the Indian Constitution and Fundamental Rights and be prepared for selfless service to the community. | 2 | 2 | 1 | 3 | 2 |
| 20U4YRC4 | INTRODUCTION TO YOUTH RED CROSS | Equip to conduct social and health awareness programmes. | 2 | 1 | 1 | 2 | 3 |
| | | Making awareness regarding red cross service and social activities | 2 | 1 | 1 | 2 | 3 |
| | | Encourage and to youth members and other students to contribute in red cross activities. | 2 | 1 | 1 | 2 | 3 |
| | | Develop qualities like compassion, kindness and caring sense through regular training and field work. | 2 | 1 | 1 | 2 | 3 |
| | | Improve kind heartedness, spirit of humanity and ideals of selfless red cross service | 2 | 1 | 1 | 2 | 3 |
| 20U4PED2 | PHYSICAL EDUCATION AND GAMES | Understand the meaning, benefits and essentials of yoga and meditation. | 2 | 1 | 1 | 2 | 2 |
| | | Maintain good physical and mental health by doing exercises, yoga and by taking nutritive foods. | 2 | 1 | 1 | 1 | 2 |
| | | Know the rules and regulations of games like boxing, fencing, judo, basketball, cricket, hockey. | 2 | 1 | 1 | 2 | 1 |
| | | Develop their physique in good shape through regular work outs and exercises. | 2 | 1 | 1 | 1 | 2 |
| | | Realize the need of physical education. | 2 | 1 | 1 | 1 | 2 |


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