



COMMISSONERATE OF COLLEGIATE EDUCATION,



GOVT. DEGREE COLLEGE

RAJAMPET, KADAPA. Dt.

(Affiliated to Yogi Vemana University, Kadapa.)

TEACHING PLAN

ACADEMIC YEAR 2023-2024

Name of the Department : Mathematics
NAME OF THE LECTURER : V.K. Maslin
Course / Group : B.Sc.
Subject / Page : Mathematics

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Teaching Plan / Lesson No.

Name of the Topic	Mathematical, physical & chemical sciences
Hours required	2
Learning Objectives	Advances in Basics mathematics.
Previous knowledge to be reminded	Lines, limits, Integration
Examples / Illustrations	solved and Example problems
Additional inputs	model questions.
Teaching Aids used	Text Book, Board and chalk piece
References cited	S. Chand
Student Activity Planned after the teaching	Home work
Activity planned outside the class room, if any	
Any other activity	
Topic Synopsis	(Continue on the reverse side if needed) * Straight lines: Different forms - Reduction of general equation into various forms - point of intersection. * Limits and Differentiation: standard limits, Derivative of a function - problems. * Integration: Integration as a reverse process of diff - Basic methods of Integration. * Matrices: Types of matrices - scalar multiplication - Transpose of a matrix - determinants.

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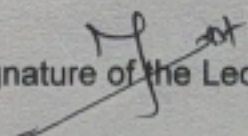
Teaching Plan / Lesson No.

Name of the Topic	Essentials and applications of mathematical,
Hours required	2 physical and chemical sciences
Learning Objectives	Complex numbers & Trigonometric Ratios
Previous knowledge to be reminded	Numbers, Trigonometry
Examples / Illustrations	Isolated problems
Additional inputs	Example problems.
Teaching Aids used	Text Book, Board
References cited	A text book of the Essentials of
Student Activity Planned after the teaching	Home work
Activity planned outside the class room, if any	Learning.
Any other activity	
Topic Synopsis	(Continue on the reverse side if needed) * <u>Complex numbers</u> :- new symbol i - General form of a complex number - modulus - Amplitude form and ^{converting} converting * <u>Trigonometric Ratios</u> :- Trigonometric Ratios and their relations - problems on calculation of angles * <u>vectors</u> :- Def. of vector addition - Cartesian form scalar and vector product - problems on statistical measures Mean, Median, mode of a data and problems.

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Teaching Plan / Lesson No.

Name of the Topic	Real number and infinite series.
Hours required	6+6
Learning Objectives	Infinite series
Previous knowledge to be reminded	Series
Examples / Illustrations	Examples, model questions
Additional inputs	solved problems
Teaching Aids used	Board, Text Book
References cited	S. Chand vol - II
Student Activity Planned after the teaching	Home work
Activity planned outside the class room, if any	slip test conducted
Any other activity	Objective questions for Arithmetic and Rany.
Topic Synopsis	(Continue on the reverse side if needed) * Def. of series, convergent and divergent series * Limit comparison test * Cauchy nth root test * D Alembert's test * Leibnitz test.


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Teaching Plan / Lesson No.

Name of the Topic	Limits and Continuity
Hours required	6+6
Learning Objectives	Limits and Continuity.
Previous knowledge to be reminded	Limits.
Examples / Illustrations	solved problems.
Additional inputs	Exercise problems.
Teaching Aids used	Board, Text Book.
References cited	S. Chand vol - I
Student Activity Planned after the teaching	Home-work.
Activity planned outside the class room, if any	Prepare for next topic
Any other activity	Study hours.
Topic Synopsis	(Continue on the reverse side if needed) * limit of a function * limit of a infinite continuous function * Combination of Continuity functions * Continuous function on integration * Uniform Continuity.

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Teaching Plan / Lesson No.

Name of the Topic	Differentiation and mean value thems
Hours required	6+6
Learning Objectives	Differentiation
Previous knowledge to be reminded	Differentiation and integration
Examples / Illustrations	Examples
Additional inputs	Solved problems
Teaching Aids used	Text book & Board
References cited	S. Chand vol- II
Student Activity Planned after the teaching	Study Hours
Activity planned outside the class room, if any	Home-work
Any other activity	Seminars
Topic Synopsis	(Continue on the reverse side if needed) * Derivability of a function as interval at a point. * Derivability and continuity of a function * Graphical method of a derivation * mean value thms * Cauchy mean value thms & Lagrange's thms * Rolle's thms

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Teaching Plan / Lesson No.

Name of the Topic	Riemann Integration - I
Hours required	12
Learning Objectives	limits, integral Riemann Integration
Previous knowledge to be reminded	limits, integration
Examples / Illustrations	school problems
Additional inputs	Examples
Teaching Aids used	Board - Text Book
References cited	School Value - I
Student Activity Planned after the teaching	Studying
Activity planned outside the class room, if any	Home - work
Any other activity	
Topic Synopsis	(Continue on the reverse side if needed) * Def. of R.I & Riemann integral * Integral function, Darboux theory * All conditions for R-Integral * Some class of bounded integral functions.

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Teaching Plan / Lesson No.

Name of the Topic	Riemann Integral - II
Hours required	12
Learning Objectives	Riemann Integral - II
Previous knowledge to be reminded	Riemann Integral - I
Examples / Illustrations	Solved problems.
Additional inputs	Examples
Teaching Aids used	Board - Text book
References cited	A Text Book of S. Chand vol II
Student Activity Planned after the teaching	Learning
Activity planned outside the class room, if any	Home-work
Any other activity	Seminars.
Topic Synopsis	(Continue on the reverse side if needed) * A properties of Integral function * Fundamental theorem of Integral calculus * Integral as the limit of a sum * Mean value theorem

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Teaching Plan / Lesson No.

Name of the Topic	Multiple Integrals
Hours required	15
Learning Objectives	Double & Triple Integrals.
Previous knowledge to be reminded	Integration
Examples / Illustrations	Example problems.
Additional inputs	solved problems.
Teaching Aids used	Text Book, Board
References cited	Chand Text Books
Student Activity Planned after the teaching	Home-work
Activity planned outside the class room, if any	Learning.
Any other activity	
Topic Synopsis	(Continue on the reverse side if needed) * Introduction, Double integrals, Evaluation of double integrals properties of double integrals. * Region of integration, double integration in polar-coordinates & change of order * Triple integrals, region of integration, Evaluation of triple integrals.

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Teaching Plan / Lesson No.

Name of the Topic	Vector Differentiation - I
Hours required	15
Learning Objectives	Vector diff, partial diff, Grad, Dive
Previous knowledge to be reminded	Vectors, Dot product, Cross product.
Examples / Illustrations	Examples
Additional inputs	Solved problems.
Teaching Aids used	Board, Text Book
References cited	Chand Text Book
Student Activity Planned after the teaching	Learning
Activity planned outside the class room, if any	Home-work
Any other activity	
Topic Synopsis	(Continue on the reverse side if needed) * vector diff, ordinary derivatives of vectors - partial diff. * Gradient of a scalar point function. * Directional derivatives * Angle b/w two surfaces.

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Teaching Plan / Lesson No.

Name of the Topic	Vector Differentiation - II
Hours required	15
Learning Objectives	Divergence, Curl
Previous knowledge to be reminded	Dot product and Cross product
Examples / Illustrations	Examples
Additional inputs	Solved problems.
Teaching Aids used	Board, Text Book
References cited	S. Chand Text Book
Student Activity Planned after the teaching	Home work
Activity planned outside the class room, if any	
Any other activity	Seminar Conducted.
Topic Synopsis	(Continue on the reverse side if needed) * Divergence * Curl and Laplacian operator * Formulae involving these operators.

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Teaching Plan / Lesson No.

Name of the Topic	Vector Integration
Hours required	1½
Learning Objectives	vector differentiation & partial diff
Previous knowledge to be reminded	Integration
Examples / Illustrations	Examples.
Additional inputs	solved problems.
Teaching Aids used	Board, Text book
References cited	S. Chand - Text book
Student Activity Planned after the teaching	Learn practice the problems
Activity planned outside the class room, if any	Home - work
Any other activity	
Topic Synopsis	(Continue on the reverse side if needed) * Line Integrals * Surface integrals * Volume integrals

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Teaching Plan / Lesson No.

Name of the Topic	- Application of vector integration.
Hours required	15
Learning Objectives	Gauss, Green's, Stokes' thems & its applications.
Previous knowledge to be reminded	Integration.
Examples / Illustrations	Examples.
Additional inputs	related problems.
Teaching Aids used	Board, class room
References cited	S. Chand text book
Student Activity Planned after the teaching	Home-work.
Activity planned outside the class room, if any	practice the problems
Any other activity	Assignment given
Topic Synopsis	(Continue on the reverse side if needed) * Gauss thm & its applications * Green's thm & its applications * Stokes' thm & its applications

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Teaching Plan / Lesson No.

Name of the Topic	Arithmetic ability & Verbal Reasoning
Hours required	
Learning Objectives	Algebra operations & coding and decoding
Previous knowledge to be reminded	multiplication and additions-
Examples / Illustrations	Examples
Additional inputs	related problems.
Teaching Aids used	Board and clay room
References cited	R.S. Agarwal Text Book
Student Activity Planned after the teaching	practice the Examples
Activity planned outside the class room, if any	
Any other activity	
Topic Synopsis	(Continue on the reverse side if needed) * <u>Arithmetic ability</u> :- * BODMAS rule, Fractions * Divisibility and LCM & GCD (HCF) * <u>Verbal Reasoning</u> :- * Number series, Coding & decoding. * Blood Relationship * Clocks & calendars.

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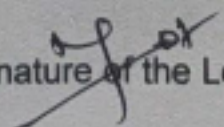
Teaching Plan / Lesson No.

Name of the Topic	Quantitative aptitude & Business Computations
Hours required	
Learning Objectives	profit loss problems, Time
Previous knowledge to be reminded	
Examples / Illustrations	Examples.
Additional inputs	solved problems.
Teaching Aids used	Board, Text Book.
References cited	R.S. agarwal Text Book
Student Activity Planned after the teaching	practice the solved problems.
Activity planned outside the class room, if any	Assignment given
Any other activity	
Topic Synopsis	(Continue on the reverse side if needed) <u>Quantitative aptitude:-</u> * Average, Ratio and proportion * problems on ages & Time - distance - speed. <u>Business Computations:-</u> * percentages, profit & loss * partnership * Simple Compound interest.

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Teaching Plan / Lesson No.

Name of the Topic	Data Interpretation
Hours required	
Learning Objectives	Graphs, charts, ven-diagrams.
Previous knowledge to be reminded	
Examples / Illustrations	Examples
Additional inputs	word problems
Teaching Aids used	Board, text Book.
References cited	R.S. Agarwal text Book.
Student Activity Planned after the teaching	Assigned problems.
Activity planned outside the class room, if any	practice line problems.
Any other activity	
Topic Synopsis	(Continue on the reverse side if needed) * Tabulation, Bar Graphs * pie-charts, line Graphs * ven diagrams.


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Teaching Plan / Lesson No.

Name of the Topic	
Hours required	
Learning Objectives	
Previous knowledge to be reminded	
Examples / Illustrations	
Additional inputs	
Teaching Aids used	
References cited	
Student Activity Planned after the teaching	
Activity planned outside the class room, if any	
Any other activity	
Topic Synopsis	(Continue on the reverse side if needed)

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