COURSE OUTCOMES

I-YEAR SEMESTER-I   PAPER-I

Course Title: Differential and Integral calculus

On Completion of this course the students will be able to:

- Define ordinary and partial differential equation.
- Understand Euler's theorem for homogeneous functions.
- Find radius of curvature and centre of curvature.
- Find maxima and minima of function of two variables.
- Graphically obtain the surface of revolution of curves.
- Evaluate the area of surfaces of revolution.
- Calculate the length of an arc of a curve when whose equations are given in parametric and polar form.

I- YEAR   SEMESTER-II   PAPER-II

Course Title: Differential Equations

On successful completion of the course, Students will be able to:

- Define differential equation, order and degree of the differentialequation.
- Solve first order differential equation, utilizing standard techniques of a separable, exact and linear homogeneous equations
- Find complete solution of non homogeneous differential equations as linear combination of complementary function and particular solution.
- Students will have a working knowledge of basic application problems described by second order linear differential equations with constant coefficient.
- Identify different types of differential equations and solve them.
- Solve the partial differential equation using Lagrange's method

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II-YEAR   SEMESTER-III   PAPER-III

Course Title: Real Analysis

After completing the course students are expected to be able to:

- Students will be able to demonstrate basic knowledge of key topics in classical real analysis.
- Give the definition of concepts related to Sequences, Series, continuity Differentiable, convergent etc.
- Give the essence of the proof of Bolzano weistrass theorem the contraction theorems well as existence of convergent subsequence using continuity.
- Evaluate the limits of wide class of real sequences.
- Determine whether or not real series are convergent by comparison with standard series or using the ratio test.
- Understand and perform simple proofs.

II-YEAR   SEMESTER-IV   PAPER-IV

Course Title: Abstract Algebra

After completing the course students are expected to be able to:

- Learn about the fundamentals concept of Groups, Sub groups, normal groups
- subgroups, isomorphism theorems, Cyclic and permutations groups
- To combine Polynomial by Addition or Subtraction
- To Solve problems of simple inequalities
- Interpret basic absolute value Expression
- To simplify algebraic expression using the commutative, Associative anddistributive Properties

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III-YEAR   SEMESTER-V   PAPER-V

COURSE TITLE: LINEAR ALGEBRA

After completing the course students are expected to be able to:

- Define vector space and subspace
- Recognize and use basic properties of subspaces and vector space
- Understand the concept of base and dimension of the vector space
- Describes coordinates of a vector relative to a given basis
- Discuss spanning sets for vectors
- Use characteristic polynomial to compute Eigen values and eigenvectors
- Explain the relationship between the row space and column space of amatrix

III-YEAR   SEMESTER: VI   PAPER:VI

COURSE TITLE: NUMERICAL ANALYSIS

After completing the course students are expected to be able to:

- The theoretical and practical aspects of the use of numerical analysis.
- To establish the limitations, advantages, and disadvantages of numericalanalysis.
- To derive numerical methods for various mathematical operations and tasks, such has interpolation, differentiation, integration, the solution of linear and non linear equations, and the solution of differential equations.
- To understand of common numerical analysis and how they are used to obtain approximate solution to otherwise intractable mathematical problems.
- To understand appropriate numerical methods to solve probability based problems.

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