COURSE OUTCOMES:

After successful completion of this course, the student will be able to;

DIFFERENTIAL EQUATIONS

PAPER CODE:1-1-112

1. Solve linear Differential Equations
2. Convert non exact homogeneous equations to exact differential equations by using Integrating factors.
3. Know the methods of finding solutions of differential equations of the first order but not the first degree.
4. Solve higher order linear differential equations both homogeneous and non-Homogeneous with constant coefficients.
5. Understand the concept and apply appropriate methods for solving Differential Equations.

THREE DIMENSIONAL ANALYTICAL SOLID GEOMETRY

PAPER CODE: 1-2-112

1. Get the knowledge of planes.
2. Basic ideas of line, sphere and cone.
3. Understand the properties of planes, lines, spheres and cones.
4. Express the problems geometrically and then get the solution.

ABSTRACT ALGEBRA

PAPER CODE: 1-3-112

1. Acquire the basic knowledge and structure of groups, subgroups and cyclic groups.
2. Get the significance of the notation of a normal subgroup.
3. Get the behaviour of permutations and operations on them.
4. Understand the ring theory concepts with the help of knowledge in group theory and to prove the theorems.

5. Understand the applications of ring theory in various fields

REAL ANALYSIS

PAPER CODE : 1-4-112

1. Get clear idea about the real numbers and real valued functions.
2. Obtain the skills of analysing the concepts and applying appropriate methods for testing convergence of a sequence/series.
3. Test the continuity and differentiability and Riemann integration of a function.
4. Know the geometrical interpretation of mean value theorems.

LINEAR ALGEBRA

PAPER CODE: 1-5-126

1. Understand the concepts of vector spaces, subspaces, basis, dimension and their Properties.
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4. Learn the properties of inner product spaces and determine orthogonality.

RING THEORY AND VECTOR CALCULUS

PAPER CODE: 1-5-125

1. Acquire the knowledge of basic concepts of Rings and various types of Rings, the Characteristic of an integral domain and field.
2. Get the knowledge of Homomorphism and its properties, Fundamental theorem of Homomorphism.
3. Attain the skills to compute various integral curves with proper analysis.
4. Comprehend the application of Gauss, Stokes and Green's theorems.

LAPLACE TRANSFORMS

PAPER CODE: 1-6-112

1. Learn the Laplace transforms of a function by definition and use of a table.
2. Observe the inverse Laplace transform of a function.
3. Acquire the knowledge of convolution of two functions.

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PAPER CODE: 1-6-112 A

1. Gain skills to find the formulae for Fourier Transforms.
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PAPER CODE: 1-6-112 B

1. Able to obtain the Numerical methods for approximating the problems of Continuous mathematics.
2. Learn the numerical approximations of first and second derivatives of various Functions.
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