**GOVERNMENT DEGREE COLLEGE-NARASANNAPETA**

**DEPARTMENT OF MATHEMATICS**

**COURSE OUTCOMES FOR I B.Sc (MPC/MPCS)**

**SEMESTER -I**

**PAPER –I DIFFERENTIAL EQUATIONS**

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

 **1. Solve linear differential equation.**

 **2. Convert non exact homogenous equations to exact differential equations**

 **by using integration factors.**

 **3. Know the methods of finding solutions of differential equations of the**

 **first order but not of the first degree.**

 **4. Solve higher order linear differential equations, both homogenous, with**

 **constant coefficients.**

 **5. Understand the concept and apply appropriate methods for solving**

 **differential equations.**

**SEMESTER -II**

 **PAPER –II THREE DIMENSIONAL ANALYTICAL SOLID GEOMETRY**

**After Successful completion of this course, the student will be able to**

1. **Get the knowledge of planes.**
2. **Basic idea of lines, Sphere and Cones.**
3. **Understand the properties of planes, lines, spheres and cones.**
4. **Express the problems geometrically and then to get the solution.**

**COURSE OUTCOMES FOR II B.Sc (MPC/MPCS)**

**SEMESTER -III**

**PAPER-III ABSTRACT ALGEBRA**

**After Successful completion of this course, the student will be able to**

1. **Acquire the basic knowledge and structure of groups, subgroups and cyclic groups.**
2. **Get the significance of the notation of a normal subgroups.**
3. **Get the behavior of permutations and operations on them.**
4. **Study the homomorphism and isomorphism with applications.**
5. **Understand the ring theory concepts with the help of knowledge in group theory and to prove the theorems.**
6. **Understand the applications of ring theory in various fields.**

**SEMESTER-IV**

**PAPER-IV REAL ANALYSIS**

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

1. **Get the clear idea about the real numbers and real valued functions.**
2. **Obtain the skills of analyzing 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 theorem.**

**COURSE OUTCOMES FOR II B.Sc (MPC/MPCS)**

**SEMESTER -IV**

**PAPER-V LINEAR ALGEBRA**

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

1. **Understand the concept of vector spaces, subspaces, basis, dimension and their properties.**
2. **Understand the concepts of linear transformations and their properties.**
3. **Apply cayley-Hamilton theorem to problems for finding the inverse of a matrix and higher powers of matrices without using routine methods**
4. **Learn the properties of inner product spaces and determine orthogonality in inner product spaces.**