A.S.D. Government Degree College for Women (A),Kakinada
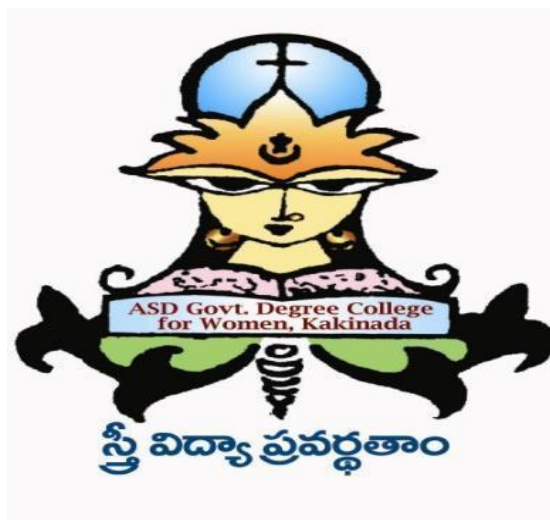

DEPARTMENT OF MATHEMATICS

2018-19

COURSE OUTCOMES

A.S.D.GOVT.DEGREE COLLEGE FOR WOMEN (A)

Department of Mathematics

PROGRAMME:B.Sc(MPC,MPCs)

2018-19

COURSE OUTCOMES

Paper : l

Course: Differential Equations

Course Outcomes:

CO 1. solve first order first degree linear differential equations.

CO 2. convert a non-exact homogeneous equation to exact differential equation by using an integrating factor

CO3.know the methods of finding solution of a differential equation of first order but not of first degree

CO4. solve higher-order linear differential equations for both homogeneous and non-homogeneous, with constant coefficients.

CO5.understand and apply the appropriate methods for solving higher order differential equations

Paper :II

Course : THREE DIMENSIONAL ANALYTICAL SOLIDGEOMETRY

Course Outcomes:

CO 1. understand planes and system of planes.
CO 2. know the detailed idea of lines.
CO 3. understand spheres and their properties.
CO4. know system of spheres and coaxial system of spheres.
CO 5. understand various types of cones.

Paper :III

Course: ABSTRACT ALGEBRA

Course Outcomes:

CO 1. To analyse the abstract algebraic concept Group theory.
CO 2. To understand the concepts in group theory like groups, subgroups, normal subgroups, permutation groups and cyclic groups with examples.
CO 3. To understand the theorems on these concepts and also to solve problems on it.
CO 4. To analyse and understand the
applications of group theory in various fields.
CO 5. To understand the ring theoretic concepts with the help of knowledge in group theory and to prove the theorems on it.
CO 6. To understand the applications of ring theory in various fields

Paper :IV

Course: REAL ANALSIS

Course Outcomes:

CO 1. To get clear idea about the real numbers and real valued functions.
CO 2. To obtain the skills of analyzing the concepts and applying appropriate methods for testing converges of a sequence or series.
CO 3. To analyse the concepts of continuity, differentiability and Riemann integrability of a function and also to gain the skills about how to test these conditions of functions defined on the subsets of the realline.

    CO4. To know the Geometrical interpretation of mean value theorems.
Paper :V

Course: RING THEORY&VECTOR CALCULUS

Course Outcomes:

CO1. Understand the importance of algebraic properties with regards to working with in various number systems

CO2. Develop skills to analyze, improve and outline the logical thinking .interpret how to know the ring theory using internet.

CO3. Use relevant numerical techniques to determine ,and apply , the important quantities associated with vector fields such as the divergence,curl,and scaler potential

CO4. Develop numerical skills in solving the problems involveing evaluate line integrals solve line and surface intergarals.evaluate double and triple integrals in eclidean,cylindrical and spherical coordinate systems.

CO5. Evaluate integral using greens thorem ,stock theorem and gauss divergence theorem.

Paper :VI

Course: LINEAR ALGEBRA

Course Outcomes:

CO 1. To understand the different concepts of linear algebra.
CO 2. To analyse the concepts of vector space, subspace and homomorphism between them.
CO 3. To understand how to solve the system of linear equations and this concept used in balancing of chemical equations.
CO 4. To analyse the concepts of eigen values, inner product spaces and orthogonality and also gain the problem solving ability on them

Paper :VIA

Course: NUMERICAL METHODS

Course Outcomes:

CO 1. Understand the subject of various numerical methods that are used to obtain approximate solutions .
CO 2. Understand various finite difference concepts and interpolation methods.
CO 3. Work out numerical differentiation and integration whenever and wherever routine methods are not applicable.
CO 4. Find numerical solutions of ordinary differential equations by using various numerical methods.
CO 5. Analyze and evaluate the accuracy of numerical methods.

Paper :VIIA

Course: ADVANCE NUMERICAL METHODS

Course Outcomes:

CO 1 : be able to derive numerical methods for various mathematical operations and tasks, such as interpolation using differentiation.

CO 2 : be able to solve problems using Simpson's rule , trapezoidal rule which involve

 integration. for various mathematical operations and tasks.

CO 3 : analyze various methods to solve exponential , power series curves

CO 4 : Acquire knowledge on solving simultaneous linear system of equations using directand iterative methods.

CO 5 : Acquire knowledge on solving Ordinary Differential Equations using different

 numerical methods

Paper :VIIB

Course: MATHEMATICS SPECIAL FUNCTIONS

Course Outcomes:

CO 1. Understand the Beta and Gamma functions, their properties and relation between these two functions, understand the orthogonal properties of Chebyshev polynomials and recurrence relations

CO 2. Find power series solutions of ordinary differential equations.

CO 3. solve Hermite equation and write the Hermite Polynomial of order (degree) n, also find the generating function for Hermite Polynomials, study the orthogonal properties of Hermite Polynomials and recurrence relations.

CO 4. Solve Legendre equation and write the Legendre equation of first kind, also find the generating function for Legendre Polynomials, understand the orthogonal properties of Legendre Polynomials.

CO 5. Solve Bessel equation and write the Bessel equation of first kind of order n, also find the generating function for Bessel function understand the orthogonal properties of Bessel unction.