DEPARTMENT OF BASIC SCIENCE

DEPARTMENT OF MATHEMATICS

Course Code: 18MAT11

CO1: To study and analyze the bentness of curve using Radius of curvature and its applications to evolutes and involutes.

CO2: To Learn the notion of partial differentiation to calculate rates of change of multivariate functions and solve problems related to composite functions and Jacobians.

CO3: Apply the concept of change of order of integration and variables to evaluate multiple integrals and to compute the area and volume.

CO4: Solve first order Linear and Non-Linear differential equation analytically using standard methods

CO5: Solving system of linear equations using Matrix theory and to compute eigenvalues and eigenvectors for matrix diagonalization process.

Course Code: 18MAT21

CO1: analyze the physical interpretation of vector fields and its properties and evaluation of line surface and volume integrals.

CO2: Apply and generate solutions to various types of differential equations & its applications to engineering.

CO3: Understand the nature of infinite series and obtain the series solution of ordinary differential equations.

CO4: Solve algebraic and transcendental equations and obtain intermediate values using Numerical Methods

Course Code: 18MAT31

CO1: Use Laplace transform and inverse Laplace transforms in solving differential/integral equation arising network analysis control systems and other fields of engineering.

CO2: Demonstrate Fourier Series and Inverse Fourier series to study the behaviour of periodic functions and their applications in system communication, digital signal processing and field theory.

CO3: Apply to transform one to another domain by Fourier integrals and also by z-transforms

CO4: Use appropriate single step solve first order arising in flow data design problems.

CO5:Use appropriate multi-step numerical methods to solve second order ordinary differential equations arising in flow data design problems and also apply the Euler's equations for a given function by Euler's equation.

Course Code: 18MAT41

CO1 :students will be able to apply the knowledge of complex analysis , its properties and construction of analytical functions.

CO2 :students will be able to analyse various transformations to convert one plane to another ,evaluate complex integrals and finding the best relation between the variables.

CO3: students will learn different probability measures ,distribution functions and its properties and also apply various inequalities in statistical analysis.

CO4: the students will be able to understand the problem of statistical inference, problem of testing of hypothesis

Course Code: 18CS36

CO1: Understand the basic concepts of mathematical logic and Construct proofs by its different methods

CO2 : Construct proofs by applying Mathematical Induction and Solve problems by applying elementary counting techniques

CO3: Understand and apply properties of Relations and Functions in different domains of computing.

CO4: Understand and apply Generalized principle to solve the real life problems

CO5 : Understand the Properties of Graphs and trees and apply to construct spanning trees, prefix codes and its real time application

DEPARTMENT OF PHYSICS

Course Code: 18PHY12/22

CO1: Understand the basics concepts of Elastic properties, oscillations and waves and relate the knowledge of quantum physics to the properties of materials such as conductors, laser, optical fiber, dielectrics.

CO2: Illustrate the point to point communication system and production of Shockwaves and Laser.

CO3 : Compute the Eigen values and eigen function by using the time independent 1D Schrodinger wave equation

CO4 : Apply the knowledge in problem solving and construct the applications of the materials

DEPARTMENT OF CHEMISTRY

Course Code: 18CHE12/22

CO1: To understand the basic principle, construction, working and applications of various types of energy systems and energy storage systems

CO2: To analysis the causes and effects of corrosion and its control techniques., modification of surface properties of metal and plating techniques by metal finishing.

CO3: To determination the methods of various parameters of water, causes and prevention of air pollutants, causes and management techniques of sewage, solid waste, e-waste and bio medical waste.

CO4: To study the different techniques of instrumental method of analysis and fundamental principle, synthesis and applications of nano materials.
