Department of Mathematics B. Sc. Honours Course Outcome

PART-I Paper -I: Number theory, classical algebra, Modern algebra 1

CO.1. Learning Number theory help students to understand Group theory, Rings, Fields etc.

CO.2. Understanding Classical algebra and finding the roots or values of the unknowns.

CO.3. Comprehending the concept of Modern algebra which is the branch of mathematics concerned with the general algebraic structure of the various sets such as real numbers, complex numbers, matrices and vector space.

Paper -II: Linear algebra, Vector algebra, Mathematical logic;

CO.1. Learning Linear algebra helps students to understand all modern scientific subjects. **CO.2.** Understanding vector algebra helps students to solve some problems in analytical coordinate geometry and 3D motion.

CO.3. Learning mathematical logic helps students to concern with forms of reasoning.

Paper -III: Real analysis ,Calculus of Single variable, Calculus of several variables.

CO.1. Analyzing Real analysis to understand the concept of point sets, real number, sequence, series etc.

CO.2. Explaining the concept of calculus of single variable and some basic functions such as Limit, continuity, differentiability etc.

CO.3. Understanding the concept of Several Variables in Calculus.

<u>Paper-IV: Analytical Geometry of two dimension, Integral Calculus-I and Differential Equations-I</u>

CO.1.Discussing Analytical Geometry of Two Dimensions.

CO.2.Explaining Integral Calculus.

CO.3. Solving various problems on Differential Equations.

PART-II

Paper V-Real Analysis-II, Calculus of Several Variables-II, Applications of Calculus:

Co.1. Analyzing Real analysis to understand the concept of point Sets , real number, sequence, series etc.

CO.2. Understanding the concept of Several Variables in Calculus.

CO.3. Using the applications of Calculus on Differential Calculus and Integral Calculus.

Paper VI-Integral Calculus-II, Dynamics of a Particle

CO.1. Explaining Integral Calculus. CO.2.Over view dynamics of a Particle.

Paper VII-Modern Algebra-II, Linear Algebra-II, Vector Analysis:

CO.1.Comprehending the concept of Modern algebra which is the branch of mathematics concerned with the general algebraic structure of the various sets such as real numbers, complex numbers, matrices and vector space.

CO.2. Learning Linear algebra helps students to understand all modern scientific subjects. CO.3. Analyzing Vector Analysis

Paper VIII-Analytical Geometry of Three Dimensions, Differential Equations-II:

CO.1.Discussing Analytical Geometry of Three Dimensions.

CO.2 Solving various problems on Differential Equations.

PART-III

Paper IX- Linear Programming and Optimization, Tensor Algebra and Analysis:

CO.1.Describing Linear Programming and Optimization. **CO.2**.Analyzing Tensor Algebra and Analysis.

Paper X- Real Analysis-III, Integral Calculus-III:

CO.1. Analyzing Real analysis to understand the concept of point sets, real number, sequence, series etc.CO.2. Explaining the Concept of Integral Calculus.

Paper XI- Metric Space , Complex Analysis, Modern Algebra-III

CO.1. Comprehending the Concept of Metric Space.

CO 2. Discussing the Method of Complex Analysis.

CO 3. Comprehending the concept of Modern algebra which is the branch of mathematics concerned with the general algebraic structure of the various sets such as real numbers, complex numbers, matrices and vector space.

Paper XII-Theory of Probability, Rigid Dynamics:

- **CO.1.** Explaining the concept of the Theory of Probability.
- **CO.2**. Understanding the concept of Rigid dynamics.

Paper XIII-Theory of Statistics, Analytical Statics:

- **CO.1.** Explaining the concept of the Theory of Statistics.
- **CO.2**. Comprehending the concept of Analytical Statics.

Paper XIV-Classical Mechanics, Discrete Mathematics, Graph theory:

- **CO.1.** Describing the rules of Classical Mechanics.
- CO.2. Comprehending the concept of Analytical Statics.
- **CO.3.** Explaining The method of graph Theory.

Paper XV-Numerical Analysis, Computer Science and Programming:

CO.1. Analyzing the method of Numerical Analysis.

CO.2. Understanding the concept of Computer Science and Programming.