

LEARNING MODULE

Name of the Teacher: Dr. Swarnali Sharma Dept. of Mathematics CC- 2Sem.-2nd

Subject: Mathematics(Gen.)

Topic	Objectives	Classes required	Strategy and Methodology	Outcome
Unit 1: Differential Calculus-II	<ol style="list-style-type: none">1. Introduce the basic idea of Series and sequence2. Discuss the different principles of convergence and divergence of series and sequence3. Discuss different theorems and properties of real-valued functions defined on an interval.4. Identify maxima and minima for a function of single variable.	15	Chalk and talk	<ol style="list-style-type: none">1. Analyze the nature of sequence and infinite series2. Identify the nature of a real-valued functions defined on an interval.3. Apply the principle of maxima and minima for a function of single variable to solve geometrical and physical problems.
Unit 2: Differential Equation-II	<ol style="list-style-type: none">1. Discuss different methods to solve linear homogeneous and non-homogeneous ordinary differential equations as well as linear and non-linear partial differential equations.	10	Chalk and talk	<ol style="list-style-type: none">1. Choose proper method for finding solution of a specific ordinary and partial differential equation.
Unit 3: Vector Algebra	<ol style="list-style-type: none">1. Introduce the basic properties of vectors.2. Discuss the applications of vector to problems of geometry and mechanics.	10	Chalk and talk	<ol style="list-style-type: none">1. Apply the properties of vector algebra to solve the problems of geometry and mechanics.
Unit 4: Discrete Mathematics	<ol style="list-style-type: none">1. Review integer arithmetic, divisibility using Euclidean algorithm.2. Explain the modular arithmetic and	25	Chalk and talk	<ol style="list-style-type: none">1. Apply the properties of congruence classes to some different mathematical

	<p>modulo operator and congruence relation on integers.</p> <p>3. Discuss the application of congruence and the theorems regarding congruence classes.</p> <p>4. Introduce the concept of Boolean algebra.</p>			<p>problems.</p> <p>2. Help to perform the logical operations in digital computer.</p> <p>3. Identify a switching function that specifies the desired behaviour of the circuit.</p>
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Signature of the Teacher : Current Year : Signature of the Principal :