LEARNING MODULE

Name of the Teacher: Dr. Swarnali Sharma　　　　**Dept. of Mathematics**　　　　**CC- 4**　　　　**Sem.- 4th**

Subject: Mathematics (Gen.)

Topic	Objectives	Classes required	Strategy and Methodology	Outcome
Unit 1: Algebra-II	1. Introduce the basic concept and properties of Group, Ring and Field theory. 2. Give the basic concept of vector space over a field. 3. Discuss about characteristic equation, eigenvalue and eigenvector and their properties.	10	Chalk and talk	1. Analyze sets with binary operations and identify their structures of algebraic nature such as groups, rings and fields. 2. Analyze base concept of a vector space and properties of vectors on the base. 3. Apply the properties of eigenvalue and eigenvector to analyse the nature of the system.
Unit 2: Computer science and programming	1. Introduce the basic concept of computer language and programming. 2. Give idea about positional number system. 3. Discuss about algorithms and flow charts.	25	Chalk and talk	1. Apply the computer language and programming to solve various problems. 2. Apply the algorithm and flow charts to formulate different problems.
Unit 3: Probability and statistics	1. Introduce the basic concept of Probability theory and its properties. 2. Discuss the elements of statistical methods. 3. Give idea about sampling theory, Estimation, test of significance. 4. Discuss about bivariate frequency distribution.	25	Chalk and talk	1. Articulate the axioms (laws) of probability. 2. Formulate predictive models to tackle situations where deterministic algorithms are intractable. 3. Assess data-based models and apply tools of formal inference.

Signature of the Teacher :..   Current Year : ....   Signature of the Principal :..