Name of the Teacher: Sushma Gupta,

Class: B.Sc.-I.T. Mathematics (1st Semester),Paper Code- **BSIT-102**

**Paper:- Mathematical foundations for Information Technology-I**

**Lesson Plan**

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| **S No** | **Period** | **Topics to be Covered** | **Academic Activity to be Organized** |
|  | **17-31 July 2017** | **Matrix Algebra:** Introduction, Rank Matrix, Eigen vectors, Characteristics equation | **Oral Presentations** |
|  | **01-31 Aug 2017** | **Matrix Algebra**:- Diagalization  **Differential Equations:** Formation of differential equations | **Oral Presentations** |
|  | **01-30 Sept 2017** | **Differential Equations:** Geometrical approach to the existence of solutions of the equations dy/dy=f(x, y), ordinary Differential equations of the first order and degree, exact equation. | **Group Discussion** |
|  | **01-31 Oct 2017** | Linear equations of higher order with constant coefficient, Homogenous linear equations.  **Sets and propositions**: introduction, combination of sets, Finite and infinite sets, uncountably, Mathematical induction, properties of binary relations. | **Group Discussion** |
|  | **01-13 Nov 2017** | Equivalence relations and partitions, partial relations, functions and pigeon Hole Principle ,Propositions. | **Questionnaire** |

**Topics of Assignments/ Class Tests to be given to the Students:**

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| **Assignment 1** | Examples of Exact Differentiation |
| **Assignment 2** | Properties of sets and binary operations |
| **Class Test** | Linear differential equations of higher order with constant coefficient, Homogenous linear equations. |