

## Lesson Plan

Name of the Faculty : Parveen Kumar

Discipline : M.Sc. Chemistry(Dual Degree) & Bio-Tech.

Semester : Second Semester.

Subject : Mathematics-II.

Lesson Plan duration : 40 Lectures (From January 8, 2018 to April 27, 2018).

| Lectures | Topic (including assignment and test)  |
|----------|--|
| L-1      | Limits   |
| L-2      | Continuity   |
| L-3      | Differentiability  |
| L-4      | -----do-----   |
| L-5      | Exponential and Logarithmic Differentiation.   |
| L-6      | -----do-----   |
| L-7      | Derivative of Function.  |
| L-8      | Second Order Derivative.   |
| L-9      | -----do-----   |
| L-10     | Mean Value Theorem.  |
|          | CLASS TEST   |
| L-11     | Increasing and Decreasing Function.  |
| L-12     | -----do-----   |
| L-13     | Maxima and Minima.   |
| L-14     | -----do-----   |
| L-15     | Rolle's Theorem & Mean Value Theorem.  |
| L-16     | Tangents and Normals.  |
| L-17     | Indeterminate Form   |
| L-18     | -----do-----   |
| L-19     | L'Hospital's Rule  |
| L-20     | Taylor and Maclaurin Series(without proof).  |
|          | CLASS TEST   |
| L-21     | Integral as Antiderivative.  |
| L-22     | Integration by Substitution, Partial Fraction, by Parts.                                   |
| L-23     | -----do-----   |
| L-24     | Definite Integral and its Properties.  |
| L-25     | -----do-----   |
| L-26     | Area of Bounded Regions.   |
| L-27     | Definition of Integral of a real valued function as Limit of Sum by determination of Area. |

|      |   |
|------|---|
| L-28 | -----do-----  |
| L-29 | Fundamental Theorem of Integral Calculus.                                 |
| L-30 | -----do-----  |
|      | CLASS TEST  |
| L-31 | Introduction of Differential Equations.                                   |
| L-32 | General Solution of Differential Equations.                               |
| L-33 | -----do-----  |
| L-34 | Particular Solution of Differential Equations.                            |
| L-35 | -----do-----  |
| L-36 | Formation of Differential Equation.                                       |
| L-37 | -----do-----  |
| L-38 | Methods of solving First Order and First Degree<br>Differential Equation. |
| L-39 | -----do-----  |
| L-40 | -----do-----  |
|      | CLASS TEST  |

#### Minor Tests

1. Minor Test-I Feb. 14-16, 2018
2. Minor Test-II April 4-6, 2018