

## Lesson Plan

Name of Faculty : Diksha Sharma

Semester: 3rd

Subject: Mathematics

Code: BSC-MATH- 203G

Lesson Plan Duration 15 weeks

Week	Lecture	Topic covered
1 <sup>st</sup>	1	<b>UNIT I</b> Limit, Continuity and Partial Derivatives
	2	Total Derivatives
2 <sup>nd</sup>	3	Homogeneous Functions and Euler's theorem
	4	Maxima Minima and saddle points
3 <sup>rd</sup>	5	Lagrange's method of undetermined multipliers
	6	Revision Unit I
4 <sup>th</sup>	7	Test
	8	<b>Unit -II</b> Double Integral
5 <sup>th</sup>	9	Change of order of integration
	10	Change of variables
6 <sup>th</sup>	11	Applications of double integral to find area enclosed by plane curves
	12	Triple Integral
7 <sup>th</sup>	13	Revision of Unit II
	14	Test
8 <sup>th</sup>	15	<b>Unit -III</b> Linear and Bernoulli's equations
	16	Exact Differential Equations
9 <sup>th</sup>	17	Equations reducible to exact differential equations
	18	Applications of Differential equations of first order and first degree to simple electric circuits
10 <sup>th</sup>	19	Newton's law of cooling
	20	Heat flow and orthogonal trajectories
11 <sup>th</sup>	21	Revision of Unit III
	22	Test
12 <sup>th</sup>	23	<b>Unit- IV</b> Linear Differential equations of second and higher order
	24	Complete solution
13 <sup>th</sup>	25	Complementary functions and Particular integral
	26	Method of variation of parameters to find P.I.
14 <sup>th</sup>	27	Cauchy's and Legendre's linear equations
	28	Simultaneous LDEs with constant coefficients
15 <sup>th</sup>	29	Applications of Linear Differential equations to oscillatory electric circuits
	30	Revision of unit IV