VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY, BURLA

LESSON PLAN

Semester: IV   **Subject- MATHEMATICS-IV**

Session: 2016-17   **Theory**

Branch/Course- Int. M.Sc.   **Name of Faculty: Dr. P. K. Jena**

Period	Module/ Number	Topic to be covered	Remarks
1	I	Computer representation of numbers	
2	I	Definition and sources of error	
3	I	Propagation of error and error summation	
4	I	Bisection method	
5	I	Newton's method	
6	I	Secant method	
7	I	Fixed point iteration method	
8	I	Roots of polynomials	
9	I	System of non linear equation	
10	I	System of non linear equation	
11	II	Polynomial interpolation	
12	II	Newton's divided difference	
13	II	Forward and backward difference	
14	II	Central differences	
15	II	Interpolation formulas using divided differences	
16	II	Using forward and backward differences	
17	II	Interpolation error	
18	II	Trapezoidal method and Simpson's rule	
19	II	Newton's Cotes and Gaussian Quadrature formula	
20	II	Error's in numerical integration	
21	III	Existence and uniqueness of solution of ODE	
22	III	Euler's method	
23	III	Mid point method	
24	III	Trapezoidal method	
25	III	Runge kutta methods	
26	III	Runge kutta methods	
27	III	Mathematical formulation of LPP	
28	III	Mathematical formulation of LPP	
29	III	Graphical methods	
30	III	Graphical methods	
31	IV	General LPP	
32	IV	Canonical and standard form	
33	IV	Simplex method ,Introduction	
34	IV	Simplex algorithm	
35	IV	Simplex algorithm	
36	IV	Use of artificial variable	
37	IV	Big –M method or method of penalty	
38	IV	Big –M method or method of penalty	

39	IV	Solution of simultaneous equation using Simplex method	
40	IV	Problems using Simplex method	