VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY, BURLA

Semester : 6TH **LESSON PLAN** **Subject: Signal & System-I**
Session : 2016-17 **Theory/Sessional: Theory**
Branch/Course : Electrical Engineering **Name of the Faculty Member: Mrs.Rosy Pradhan**

No. of Periods	Module No.	Topic to be covered	Remarks/Sign of Faculty member
1	I	Introduction of Signals, Classification of Signals	
2	I	General Signal Characteristics	
3	I	Signal energy & Power,Continuous-Time Signals , Discrete-Time Signals	
4	I	Basic System Properties, Systems with and without memory, Invertibility	
5	I	casuality, Stability, Time invariance, Linearity	
6	I	Linear Time Invariant (LTI) Systems, Discrete Time LTI Systems	
7	I	Convolution Representation of Linear Time-Invariant Discrete-Time Systems, Convolution of Discrete-Time Signals	
8	I	Convolution Representation of Linear Time-Invariant Continuous-Time Systems, Convolution of Continuous-Time Signals.	
9	I	Properties of LTI Systems, Casual systems	
10	I	SOLVING PROBLEMS AND GIVING ASSIGNMENT	
11	II	Fourier Representations for Signals: Representation of Discrete Time Periodic signals	
12	II	Continuous Time Periodic Signals, Discrete Time Non Periodic Signals.	
13	II	Continuous Time Non-Periodic Signals,	
14/17	II	Properties of Fourier Representations	
15	II	Frequency Response of LTI Systems,	
16/20	II	Fourier Transform representation for Periodic and discrete time Signals.	
17	II	Sampling, reconstruction	
18	II	Discrete Time Processing of Continuous Time Signals	
19	II	Fourier Series representation for finite duration Nonperiodic signals	
20	II	SOLVING PROBLEMS AND GIVING ASSIGNMENT	
21	II	Modulation Types and Benefits	
22	II	Full Amplitude Modulation, Pulse Amplitude Modulation	
23/28	II	Multiplexing, Phase and Group Delay	
24	III	Representation of Signals using Continuous time Complex Exponentials: Laplace Transform,	

25	III	Bilateral Laplace Transform, Transform Analysis of Systems and ROC properties	
26	III	Properties of Bilateral Laplace transform	
27	III	Unilateral Laplace Transform, its inversion	
28	III	Properties of Unilateral Laplace transform and Inverse Laplace transform	
29	III	Solving of differential equation using Unilateral Laplace transform	
30	III	SOLVING PROBLEMS AND GIVING ASSIGNMENT	
31	IV	Representation of Signals using Discrete time Complex Exponentials: The Z-Transform,	
32	IV	Properties of ROC and Bilateral Z-transform	
33	IV	Inverse Z-Transform	
34	IV	S-palne to Z-plane mapping	
35	IV	Unilateral Z-Transform	
36		Properties of Unilateral Z-transform	
37	IV	Solving of difference equation using Unilateral Z-transform	
38	IV	Block digrame representation of system and its advantages	
39	IV	System realization (Canonical and Non-canonical form)	
40	IV	SOLVING PROBLEMS AND GIVING ASSIGNMENT	

Signature of The Faculty
Date: