LESSON PLAN

Subject Code & Name: 13EC3047 & Electronic Measurements And Instrumentation
Branch: E.C.E-B Class / Semester: III/I Academic Year:2017-18

Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corrective action upon review
		Performance characteristics of instruments:	**I**			
1	**13.06.2017**	Static Characteristics, Accuracy, Resolution,		Chalk & Board		
2	**14.06.2017**	Precision, Expected Value, Error And Sensitivity		„		
3	**15.06.2017**	Errors In Measurement		„		
4	**16.06.2017**	Dynamic Characteristics: Speed Of Response,		„		
5	**20.06.2017**	Fidelity, Lag And Dynamic Error.		„		
6	**21.06.2017**	**Voltmeters:** Multirange, Range Extension,		„		
7	**22.06.2017**	Solid State		„		
8	**23.06.2017**	Differential Voltmeters		„		
9	**27.06.2017**	**Ammeters:** Shunt And Thermocouple Type Ammeter.		„		
10	**28.06.2017**	**Ohmmeters**: Series Type, Shunt Type,		„		
11	**29.06.2017**	Multimeter For Voltage, Current And Resistance Measurements.		„		
12	**30.06.2017**	**Digital Multimeters:** Block Diagram And Specifications		„		
13	**11.07.2017**	Problems				
		Signal Generators	**II**			
14	**12.07.2017**	Fixed And Variable,		„		
15	**13.07.2017**	AF Oscillators		„		
16	**14.07.2017**	Standard And AF Sine Wave Signal Generators		„		
17	**18.07.2017**	Square Wave Signal Generators		„		
18	**19.07.2017**	Function Generators, Square Pulse		„		
19	**25.07.2017**	Random Noise And Sweep		„		
20	**26.07.2017**	**Wave Analyzers:** Harmonic Distortion Analyzers		„		
21	**27.07.2017**	Spectrum Analyzers		„		
22	**28.07.2017**	Digital Fourier Analyzers		„		
		Cathode Ray Oscilloscopes:	**III**			
23	**01.08.2017**	CRT Features, Vertical Amplifiers, Horizontal Deflection System		„		
24	**02.08.2017**	Sweep, Trigger Pulse, Delay Line, Sync Selector Circuits		„		
25	**03.08.2017**	Simple CRO, Triggered Sweep CRO		„		

26	**04.08.2017**	Dual Beam CRO				
27	**08.08.2017**	Measurement Of Amplitude And Frequency		„		
28	**09.08.2017**	Dual Trace Oscilloscope, Sampling Oscilloscope		„		
29	**10.08.2017**	Storage Oscilloscope, Digital Storage Oscilloscope		„		
30	**11.08.2017**	Lissajous Method Of Frequency Measurement		„		
31	**16.08.2017**	Standard Specifications Of CRO		„		
32	**17.08.2017**	Probes For CRO (Active And Passive), Attenuator Type,		„		
		Ac Bridges:	**IV**			
33	**18.08.2017**	Measurement Of Inductance: Maxwell's Bridge		Chalk & Board		
34	**22.08.2017**	Anderson Bridge		„		
35	**23.08.2017**	Measurement Of Capacitance: Schearing Bridge		„		
36	**24.08.2017**	Kelvin's Bridge		„		
37	**29.08.2017**	Wheatstone Bridge		„		
38	**05.09.2017**	Wien Bridge		„		
39	**06.09.2017**	Errors And Precautions		„		
40	**07.09.2017**	Related Problems on Bridges		„		
41	**08.09.2017**	Related Problems. on Bridges.		„		
42	**12.09.2017**	Q – Meter		„		
		Active And Passive Transducers:	**V**			
43	**13.09.2017**	Resistance, Capacitance, Inductance		Chalk & Board		
44	**14.09.2017**	Strain Gauges		„		
45	**15.09.2017**	LVDT		„		
46	**19.09.2017**	Piezo Electric Transducers		„		
47	**20.09.2017**	Resistance Thermometers		„		
48	**21.09.2017**	Thermocouples		„		
49	**22.09.2017**	Thermistors		„		
50	**26.09.2017**	Sensistors		„		
51	**27.09.2017**	Basic Hall Effect Sensors.		„		
52	**03.10.2017**	Calibration And Standards		„		
53	**04.10.2017**	Data Acquisition Systems.		„		
54	**05.10.2017**	Revision		„		
55	**06.10.2017**	Revision		„		
56	**10.10.2017**	Old question paper solving		„		
57	**11.10.2017**	Old question paper solving		„		

Text Books:

1. Electronic instrumentation – H.S.Kalsi, Tata McGraw Hill, 2004, 2/e.
2. Modern Electronic Instrumentation and Measurement Techniques – A.D. Helfrick and W.D. Cooper, PHI, 2002, 5/e.

Reference Books:

1. Electronic Instrumentation & Measurements - David A. Bell, PHI, 2003, 2/e.
2. Electronic Test Instruments, Analog and Digital Measurements - Robert A.Witte, Pearson Education, 2004, 2/e.

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