

LESSON PLAN

Name of the Institute:		C. V. RAMAN POLYTECHNIC
Department:		ELECTRICAL ENGINEERING
Semester/Division/Branch:		4 th SEM/EE
Subject Name with code:		ELECTRICAL MEASURING INSTRUMENTS(EMI)TH-3
Total No. of Class (Required):		60
Faculty Name:		PALLAVI MISHRA
Class No.	Brief description of the Topic/Chapter to be taught	Remarks
1	Define Accuracy, precision, Errors, Resolutions Sensitivity and tolerance.	
2	Classification of measuring instruments	
3	Calibration of instruments	
4	Describe Construction, principle of operation, errors, ranges merits	
5	Moving iron type instruments	
6	2 Permanent Magnet Moving coil type instruments	
7	Dynamometer type instruments	
8	Induction type instruments	
9	Solve Numerical	
10	Describe Construction, principle of working of Dynamometer type wattmeter. (LPF and UPF type)	
11	The Errors in Dynamometer type wattmeter and methods of their correction	
12	Com Discuss Induction type watt meters.mutation and methods of improving commutation.	
13	Revision	
14	Class test	
15	Revision	
16	Introduction to energy meter	

17	Tachometers, types and working principles	
18	Principle of operation and construction of Mechanical and Electrical resonance Type frequency meters	
19	Principle of operation and working of Dynamometer type single phase and three phase power factor meters	
20	Classification of resistance	
21	Measurement of low resistance by potentiometer method.	
22	Measurement of medium resistance by wheat Stone bridge method	
23	Measurement of high resistance by loss of charge method	
24	3 Construction and principles of Multimeter. (Analog and Digital)	
25	Measurement of inductance by Maxwell's Bridge method	
26	Measurement of capacitance by Schering Bridge method	
27	Characteristics of shunt, series and compound motors and their application	
28	Revision	
29	Class test	
30	Classification of resistance	
31	Measurement of low resistance by potentiometer method	
32	Measurement of medium resistance by wheat Stone bridge method.	
33	Measurement of high resistance by loss of charge method.	
34	Construction and principles of Multimeter. (Analog and Digital)	
35	Measurement of capacitance by Schering Bridge method	
36	Discussion	
37	Class test	
38	Revision	
39	Define Transducer, sensing element or detector element and transduction elements	
40	Classify transducer. Give examples of various class of transducer.	
41	Resistive transducer	

42	Linear and angular motion potentiometer	
43	Thermistor and Resistance thermometers	
44	Inductive Transducer	
45	Principle of linear variable differential Transformer (LVDT)	
46	Uses of LVDT	
47	Capacitive Transducer	
48	General principle of capacitive transducer.	
49	3 Change in distance between plate capacitive transducer.	
50	Variable area capacitive transducer	
51	Piezo electric Transducer and Hall Effect Transducer with their applications.	
52	Revision	
53	Class test	
54	Principle of operation of Cathode Ray Tube	
55	Principle of operation of Oscilloscope (with help of block diagram).	
56	Measurement of DC Voltage & current	
57	Measurement of AC Voltage, current, phase & frequency.	
58	Revision	
59	Class test	
60	Revision	



Signature of the Faculty



Signature of the H.O.D