Detailed Teaching Plan

Lecture No.	Unit No.	Topic to be covered	Books & Page Nos.	Notes Page Nos.	Slide Nos.	A/V Resource
L-01	1	A brief introduction of syllabus and subject to the students				
L-02	1	Block Diagram of measuring systems, requirements.				
L-03	1	Block Diagram of measuring systems, requirements.				
L-04	1	Production of deflecting, controlling and damping torques.				
L-05	1	Accuracy, precision, Error, Resolution, Sensitivity and tolerance: Only Definition		1		
L-06	1	Indicating, Recording and Integrating Instruments, Typical uses		To		
L-07	1	Electromechanical measuring instruments: General description including working principle, construction applications, merits and demerits of-PMMC,		20		
L-08	1	Electromechanical measuring instruments: General description including working principle, construction applications, merits and demerits of-PMMC.				
L-09	1	Electromechanical measuring instruments: General description including working principle, construction applications, merits and demerits of- Moving iron.				
L-10	1	Electromechanical measuring instruments: General description including working principle, construction applications, merits and demerits of- Moving iron.				
L-11	1	Electromechanical measuring instruments: General description including working principle, construction applications, merits and demerits of induction type.				
L-12	1	Electromechanical measuring instruments: General description including working principle, construction applications, merits and demerits of induction type.				
L-13	1	Electromechanical measuring instruments: General description including working principle, construction applications, merits and demerits of Dynamometers type instruments				
L-14	1	Electromechanical measuring instruments: General description including working principle, construction applications, merits and demerits of Dynamometers type instruments				
L-15	1	Revision unit-1				

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Lecture No.	Unit No.	Topic to be covered	Books & Page Nos.	Notes Page Nos.	Slide Nos.	A/V Resource
L-16	2	Principle of current and voltage measurement.				
L-17	2	Principle of current and voltage measurement.				
L-18	2	Galvanometer, Ammeter, Voltmeter.				
L-19	2	Galvanometer, Ammeter, Voltmeter.				
L-20	2	Range Extension of ammeter and voltmeter using Shunts and Multipliers				
L-21	2	Range Extension of ammeter and voltmeter using Current Transformer (CT) and Potential Transformer (PT).				
L-22	2	Principle of Power and energy, Measurement, effect of power factor.				
L-23	2	Principle of Power and energy, Measurement, effect of power factor.				
L-24	2	Measurement of single and three phase power using wattmeter.				
L-25	2	Measurement of single and three phase power using wattmeter.				
L-26	2	Measurement of single-phase energy using watt-hour meter.				
L-27	2	Measurement of single-phase energy using watt-hour meter.				
L-28	2	Calibration of ammeters, voltmeters, wattmeter's and energy meters				
L-29	2	Calibration of ammeters, voltmeters, wattmeter's and energy meters				
L-30	2	Working of Digital energy meter, Block diagram				
L-31	2	Working of Digital energy meter, Block diagram				
L-32	2	Revision unit-2				

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Lecture No.	Unit No.	Topic to be covered	Books & Page Nos.	Notes Page Nos.	Slide Nos.	A/V Resource
L-33	3	Classification of resistances-Low, Medium, High.				
L-34	3	Concept of bridge, balancing.				
L-35	3	Low resistance Measurement -Kelvin double bridge.				
L-36	3	Low resistance Measurement -Kelvin double bridge.				
L-37	3	Medium resistance Measurement-Wheatstone bridge.		41		
L-38	3	Medium resistance Measurement-Wheatstone bridge		to		
L-39	3	High resistance measurement using Megger.		70		
L-40	3	High resistance measurement using Megger.				
L-41	3	Earth resistance measurement using earth tester.				
L-42	3	Earth resistance measurement using earth tester.				
L-43	3	Inductance Measurement using Maxwell's Bridge.				
L-44	3	Inductance Measurement using Maxwell's Bridge.				
L-45	3	Capacitance Measurement: Schering Bridge.				
L-46	3	Capacitance Measurement: Schering Bridge.				
L-47	3	Revision unit-3				
L-48	3	Surprise Test unit-1				
L-49	3	Surprise Test unit-2				
L-50	3	Surprise Test unit-3				

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Lecture No.	Unit No.	Topic to be covered	Books & Page Nos.	Notes Page Nos.	Slide Nos.	A/V Resource
L-51	4	Essentials and advantages of electronic instruments.				
L-52	4	True RMS reading voltmeter.				
L-53	4	True RMS reading voltmeter.				
L-54	4	Digital Voltmeters (DVM) and its types.				
L-55	4	Digital Voltmeters (DVM) and its types.				
L-56	4	Digital multi meters		71		
L-57	4	Digital multi meters		to 90		
L-58	4	Digital LCR meter- Block diagram, Working principle.				
L-59	4	Digital LCR meter- Block diagram, Working principle.				
L-60	4	Analog/Digital recorders Only block diagram				
L-61	4	Graphic recorder Only block diagram				
L-62	4	Strip Chart recorder Only block diagram				
L-63	4	XY recorder Only block diagram				
L-64	4	Revision unit-4				
L-65	4	Surprise Test -4				
L-66	5	CRO-basic clock diagram, Cathode Ray Tube, Electrostatic and magnetic deflection, X & Y Amplifiers, Controls on CRO and their functions, Lissajous pattern		91		
L-67	5	CRO-basic clock diagram, Cathode Ray Tube, Electrostatic and magnetic deflection, X & Y Amplifiers, Controls on CRO and their functions, Lissajous pattern		to		
L-68	5	CRO-basic clock diagram, Cathode Ray Tube, Electrostatic and magnetic deflection, X & Y Amplifiers, Controls on CRO and their functions, Lissajous pattern				

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Lecture No.	Unit No.	Topic to be covered	Books & Page Nos.	Notes Page Nos.	Slide Nos.	A/V Resource
L-69	5	CRO-basic clock diagram, Cathode Ray Tube, Electrostatic and magnetic deflection, X & Y Amplifiers, Controls on CRO and their functions, Lissajous pattern				
L-70	5	Digital Storage Oscilloscope- Basic block diagram and working.				
L-71	5	Digital Storage Oscilloscope- Basic block diagram and working.				
L-72	5	Digital Storage Oscilloscope- Basic block diagram and working.				
L-73	5	Digital Storage Oscilloscope- Basic block diagram and working.				
L-74	5	Revision unit-5				
L-75	5	Surprise test -5				

Vaibhav.

Signature of Lecturer

Signature of HOD