

LESSON PLAN-2021-22 (WINTER-2021)

SWAMI VIVEKANANDA SCHOOL OF ENGG & TECH, BBSR

DISCIPLINE-ETC	Semester-3rd	Name of teaching faculty-ER. PRAKASH BEURA
SUBJECT-EMI	No of days/ per week class allotted-4	SEM From date- 01/10/2021 No of weeks-16
Week	Class day	Theory Topics
1st	01.10.21	Discuss the Static Characteristics
	02.10.21	Accuracy, sensitivity, reproducibility & static error of instruments
2ND	05.10.21	Dynamic characteristics & speed of instruments.
	06.10.21	Errors of an instrument & explain various types.
	07.10.21	Introduction to Indicator & Display devices & its types
	08.10.21	Basic principle of meter movement, permanent magnetic moving coil movement & its advantages & disadvantages.
	09.10.21	Operation of Moving Iron Instrument
3RD	12.10.21 to 20.10.21	DURGA POOJA HOLIDAY
4TH	21.10.21	Basic principle of operation of AC Ammeter and Multi range Ammeter
	22.10.21	Basic principle of operation of DC Voltmeter and its applications
	23.10.21	Basic principle of operation of AC Voltmeter and its application
5TH	26.10.21	Basic principle of Ohm Meter (Series & Shunt type)
	27.10.21	Basic principle of Analog Multimeter, its types & applications
	28.10.21	Operation of Q meter and its essentials
	29.10.21	Principle of operation of Ramp type Digital Voltmeter & applications
	30.10.21	Operation of display of 3 1/2, 4 1/2- Digital Multimeter & Resolution and Sensitivity
15T	02.11.21	Basic principle of operation of working of Digital Multimeter its types & applications
	03.11.21	Basic principle of operation of working of Digital Frequency Meter
	05.11.21	Operation of working of Digital Measurement of Time
	06.11.21	Principle of operation of working of Digital Tachometer
2ND	09.11.21	Principle of operation of working of Automation in Digital Instruments (Polarity Indication, Ranging, Zeroing & Fully Automatic)
	10.11.21	Block diagram of LCR meter & its working principle.
	11.11.21	Basic principle of Oscilloscope & its Block Diagram
	12.11.21	Basic principle & Block diagram of CRO, Dual Trace Oscilloscope & its specification
	13.11.21	CRO Measurements, Lissajous figures
3RD	16.11.21	Applications of Oscilloscope (Voltage period & frequency measurement)
	17.11.21	Operation of Digital Storage Oscilloscope & High frequency Oscilloscope
	18.11.21	Types of Bridges (DC & Ac Bridges)
	20.11.21	DC Bridges (Measurement of Resistance by Wheatstone's Bridge)
4TH	23.11.21	AC bridges (Measurement of inductance by Maxwell's Bridge & by Hay's Bridge)
	24.11.21	Measurement of capacitance by Schering's Bridge & DeSauty Bridge.
	25.11.21	Measurement of frequency
	26.11.21	DURGA POOJA HOLIDAY
	27.11.21	LCR Meter & its measurements
5TH	30.11.21	Parameter, method of Selecting & advantage of Electrical Transducer & Resistive Transducer
1ST	01.12.21	Working principle of Strain Gauges, define Strain Gauge (No mathematical Derivation)
	02.12.21	Working principle of LVDT
	03.12.21	Working principle of capacitive transducers (pressure)
	04.12.21	Working principle of Load Cell (Pressure Cell)
2ND	07.12.21	Working principle of Temperature Transducer
	08.12.21	RTD
	09.12.21	Optical pyrometer
	10.12.21	Thermocouple
	11.12.21	Thermister
3RD	14.12.21	Working principle of Current transducer and KW Transducer.

	15.12.21	Working principle of Proximity & Light sensors.
	16.12.21	General aspect & classification of Signal generators
	17.12.21	Working principle of AF Sine & Square wave generator .
	18.12.21	Working principle of the Function Generator
4TH	21.12.21	Function of basic Wave Analyser & Spectrum Analyser
	22.12.21	Basic concept of Data Acquisition System (DAS)

KP

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