



LESSON PLAN, SESSION-WINTER-2023-24
SWAMI VIVEKANANDA SCHOOL OF ENGG & TECH, BBSR

DISCIPLINE-ETC ENGG.	SEMESTER- 3RD	NAME OF THE FACULTY-ER. ASHOK KUMAR PRUSTY
SUBJECT-EMI	NO OF CLASS ALLOTTED/WEEK-4	SEMESTER FROM-01.08.2023 TO 30.11.2023.
WEEK	DATE	TOPICS
1ST	01.08.23	Qualities of Measurement
	02.08.23	Discuss the Static Characteristics
	03.08.23	Accuracy, sensitivity, reproducibility & static error of instruments
2ND	07.08.23	Dynamic characteristics & speed of instruments.
	08.08.23	Errors of an instrument & explain various types.
	09.08.23	Indicating Instruments
	10.08.23	Introduction to Indicator & Display devices & its types
3RD	14.08.23	Basic principle of meter movement, permanent magnetic moving coil movement & its advantages & disadvantages
	16.08.23	Operation of Moving Iron Instrument
	17.08.23	Basic principle of operation of DC Ammeter and Multi range Ammeter
4TH	21.08.23	Basic principle of operation of AC Ammeter and Multi range Ammeter
	22.08.23	Basic principle of operation of DC Voltmeter and its applications
	23.08.23	Basic principle of operation of AC Voltmeter and its applications
	24.08.23	Basic principle of Ohm Meter (Series & Shunt type)
5TH	28.08.23	Basic principle of Analog Multimeter, its types & applications
	29.08.23	Operation of Q meter and its essentials
	30.08.23	Digital Instruments
	31.08.23	Principle of operation of Ramp type Digital Voltmeter & applications
2ND	04.09.23	Operation of display of 3 1/2, 4 1/2- Digital Multimeter & Resolution and Sensitivity
	05.09.23	Basic principle of operation of working of Digital Multimeter its types & applications
	06.09.23	Basic principle of operation of working of Digital Frequency Meter
	07.09.23	Types of Counter & applications
3RD	11.09.23	Operation of working of Digital Measurement of Time
	12.09.23	Measurement of Frequency.
	13.09.23	Principle of operation of working of Digital Tachometer
	14.09.23	Principle of operation of working of Automation in Digital Instruments (Polarity Indication, Ranging, Zeroing & Fully Automatic)
4TH	18.09.23	Block diagram of LCR meter & its working principle.
	20.09.23	Oscilloscope
	21.09.23	Basic principle of Oscilloscope & its Block Diagram
	25.09.23	Basic principle & Block diagram of CRO, Dual Trace Oscilloscope & its specification

5TH	26.09.23	CRO Measurements, Lissajous figures
	27.09.23	Applications of Oscilloscope (Voltage period & frequency measurement)
	28.09.23	Applications of Oscilloscope (Voltage period & frequency measurement)
1ST	02.10.23	Operation of Digital Storage Oscilloscope & High frequency Oscilloscope
	03.10.23	Operation of Digital Storage Oscilloscope & High frequency Oscilloscope
	04.10.23	REVISION
	05.10.23	CLASS TEST
2ND	09.10.23	Bridge
	10.10.23	Types of Bridges (DC & Ac Bridges)
	11.10.23	Types of Bridges (DC & Ac Bridges)
	12.10.23	DC Bridges (Measurement of Resistance by Wheatstone's Bridge)
3RD	16.10.23	INTERNAL
	17.10.23	INTERNAL
	18.10.23	INTERNAL
	19.10.23	INTERNAL
4TH	21.10.23 TO 28.10.	PUJA HOLIDAYS
5TH	30.10.23	AC bridges (Measurement of inductance by Maxwell's Bridge & by Hay's Bridge)
	31.10.23	AC bridges (Measurement of inductance by Maxwell's Bridge & by Hay's Bridge)
1ST	01.11.23	Measurement of capacitance by Schering's Bridge & DeSauty Bridge.
	02.11.23	Measurement of capacitance by Schering's Bridge & DeSauty Bridge.
2ND	06.11.23	Working principle of Q meter its circuit diagram & measurement of Low impedance
	07.11.23	Measurement of frequency
	08.11.23	LCR Meter & its measurements
	09.11.23	REVISION
3RD	13.11.23	Transducers & Sensors
	14.11.23	Parameter, method of Selecting & advantage of Electrical Transducer & Resistive Transducer
	15.11.23	Working principle of Strain Gauges, define Strain Gauge (No mathematical Derivation)
	16.11.23	Working principle of LVDT
4TH	20.11.23	Working principle of capacitive transducers (pressure)
	21.11.23	Working principle of Load Cell (Pressure Cell)
	22.11.23	Working principle of Temperature Transducer (RTD, Optical Pyrometer, Thermocouple, Thermister)
	23.11.23	Working principle of Current transducer and KW Transducer.
5TH	27.11.23	Working principle of Proximity & Light sensors
	28.11.23	Signal Generator, Wave Analyser & DAS
	29.11.23	General aspect & classification of Signal generator
	30.11.23	Working principle of AF Sine & Square wave generator


H. O. D.


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