LESSON PLAN

DISCIPLINE: Electronics and Telecommunication Engineering	SEMESTER: 3RD	NAME OF THE TEACHING FACULTY: Er. Pratikshya Samantaray
SUBJECT: Th.4 - ELECTRONICS MEASUREMENT & INSTRUMENTATION	NO. OF DAYS/ PER WEEK CLASS ALLOTTED: 4	SEMESTER FROM DATE: 15/09/2022 TO DATE: 22/12/2022 NO. OF WEEKS: 15
WEEK	CLASS DAY	THEORY/PRACTICALTOPICS
1ST	1ST	QUALITIES OF MEASUREMENT
	2ND	ACCURACY, SENSITIVITY
	3RD	DYNAMIC CHARACTERISTICS OF INSTRUMENTS
	4TH	ERRORS OF AN INSTRUMENT
2ND	1ST	INDICATING INSTRUMENTS
	2ND	PMMC
	3RD	MOVING IRON INSTRUMENT
	4TH	CHARACTERISTICS OF PMMC, MI INSTRUMENT
3RD	1ST	DC AMMETER, MULTI RANGE AMMETER
	2ND	AC AMMETER, MULTI RANGE AMMETER
	3RD	DC VOLTMETER
	4TH	AC VOLTMETER
4TH	1ST	OHM METER (SERIES & SHUNT TYPE)
	2ND	ANALOG MULTIMETER
	3RD	Q-METER
	4TH	Q-METER NUMERICALS
5TH	1ST	DIGITAL INSTRUMENTS
	2ND	RAMP TYPE DVM
	3RD	3½, 4½ DVM
	4TH	RESOLUTION, SENSITIVITY
6TH	1ST	DIGITAL MULTIMETERS
	2ND	DIGITAL FREQUENCY METER
	3RD	DIGITAL MEASUREMENT OF TIME
	4TH	MEASUREMENT OF FREQUENCY
7TH	1ST	WORKING OF DIGITAL TACHOMETER
	2ND	WORKING PRINCIPLE OF LCR METER
	3RD	BLOCK DIAGRAM OF LCRMETER, NUMERICALS
	4TH	OSCILLOSCOPE
8TH	1ST	BASIC PRINCIPLE OF OSCILLOSCOPE, BLOCK DIAGRAM
	2ND	DUAL TRACE OSCILLOSCOPE
	3RD	SPECIFICATIONS CRO MEASUREMENTS
	4TH	LISSAJIOUS FIGURES
9TH	1ST	APPLICATION OF OSCILLOSCOPE
	2ND	DIGITAL STORAGE OSCILLOSCOPE
	3RD	HIGH FREQUENCY OSCILLOSCOPE
	4TH	BRIDGES
10TH	1ST	DC BRIDGE (WHEAT STONE BRIDGE)
	2ND	AC BRIDGES, MAXWELL'S BRIDGE
	3RD	HAY'S BRIDGE
	4TH	SCHERING BRIDGE, DE-SAUTY BRIDGE
11TH	1ST	MEASUREMENT OF FREQUENCY
	2ND	TRANSDUCERS, SENSORS, ELECTRICAL & RESISTIVE TRANSDUCER

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	3RD	WORKING OF STRAIN GAUGES
	4TH	WORKING OF LVDT
12TH	1ST	WORKING PRINCIPLE OF CAPACITIVE TRANSDUCER
	2ND	WORKING PRINCIPLE OF LOAD CELL
	3RD	WORKING PRINCIPLE OF TEMPERATURE TRANSDUCER
	4TH	WORKING PRINCIPLE OF CURRENT TRANSDUCER
13TH	1ST	WORKING PRINCIPLE OF PROXIMITY & LIGHT SENSORS
	2ND	WORKING OF AF SINE, SQUARE WAVE GENERATOR
	3RD	CLASSIFICATION OF SIGNAL GENERATORS
	4TH	WORKING PRINCIPLE OF FUNCTION GENERATOR
14TH	1ST	FUNCTION GENERATORS DETAILS
	2ND	FUNCTION OF WAVE ANALYZER
	3RD	WAVE ANALYZER DETAILS
	4TH	FUNCTION OF SPECTRUM ANALYZER
15TH	1ST	SPECTRUM ANALYZER DETAILS
	2ND	BASIC CONCEPT OF DAS
	3RD	DAS DETAILS
	4TH	DATA ACQUISITION SYSTEM DETAILS.