

LESSON PLAN (SUMMER- 2022)

Subject- EM&I Semester 1st SEC-E2 Branch- Electrical Engineering

NAME OF FACULTY-SATAYA NARAYANA SAHOO

WEEK NO	WEEK	NO OF CLASSES AVAILABLE	TOPICS TO BE COVERED	NO OF PERIODS
1	10-03-22 to 12-03-22	2	MEASURING INSTRUMENTS 1.1 Define Accuracy, precision, Errors, Resolutions Sensitivity and tolerance	1
			1.2 Classification of measuring instruments	1
2	14-03-22 to 19-03-22	4	1.3 Explain Deflecting, controlling and damping arrangements in Indicating type of instruments.	1
			1.4 Calibration of instruments	1
			ANALOG AMMETERS AND VOLTMETERS 2.1. Describe Construction, principle of operation, errors, ranges merits and demerits of:	1
			2.1.1 Moving Iron type instruments	1
3	21-03-22 to 26-03-22	5	2.1.2 Permanent Magnet Moving coil type instruments.	1
			2.1.3 Dynamometer type instruments	1
			2.1.4 Rectifier type instruments	1
			2.1.5 Induction type instruments	1
			2.2 Extend the range of instruments by use of shunts and Multipliers.	1
			2.3 Solve Numerical	1
4	28-03-22 to 02-04-22	4	WATTMETERS AND MEASUREMENT OF POWER 3.1 Describe Construction, principle of working of Dynamometer type wattmeter. (LPF and UPF type)	1
			3.2 The Errors in Dynamometer type wattmeter and methods of their correction.	1
			3.3 Discuss Induction type watt meters	1
			cont.....	1
5	04-04-22 to 09-04-22	5	ENERGYMETERS AND MEASUREMENT OF ENERGY 4.1 Introduction	1
			4.2 Single Phase Induction type Energy meters – construction, working principle and their compensation & adjustments	1
			cont.....	1
			4.3 Testing of Energy Meters.	1
			MEASUREMENT OF SPEED, FREQUENCY AND POWER FACTOR 5.1 Tachometers, types and working principles	1
6	11-03-22 to 16-04-22	3	cont.....	1
			5.2 Principle of operation and construction of Mechanical and Electrical resonance Type frequency meters	1
			cont.....	1
7	18-04-22 to 23-04-22	5	5.3 Principle of operation and working of Dynamometer type single phase and three phase power factor meters	1
			cont.....	1
			MEASUREMENT OF RESISTANCE, INDUCTANCE& CAPACITANCE 6.1 Classification of resistance	1
			6.1.1. Measurement of low resistance by potentiometer method. .	1
			6.1.2. Measurement of medium resistance by wheat Stone bridge method	1
8	25-04-22 to 30-04-22	5	6.1.3. Measurement of high resistance by loss of charge method.	1
			6.2 Construction, principle of operations of Megger & Earth tester for Insulation resistance and earth resistance measurement respectively	1
			cont.....	1
			6.3 Construction and principles of Multimeter. (Analog and Digital	1
			cont.....	1
9	02-05-22 tp 07-05-22	4	6.4 Measurement of inductance by Maxwell's Bridge method	1
			cont.....	1
			6.5 Measurement of capacitance by Scherling Bridge method	1
			cont.....	1
			SENSORS AND TRANSDUCER 7.1. Define Transducer, sensing element or detector element and transduction elements.	1

10	09-05-22 to 14-05-22	5	7.2. Classify transducer. Give examples of various class of transducer	1
			7.3. Resistive transducer 7.3.1 Linear and angular motion potentiometer.	1
			7.3.2 Thermistor and Resistance thermometers	1
			7.3.3 Wire Resistance Strain Gauges	1
11	16-05-22 to 21-05-22	5	cont.....	1
			7.4. Inductive Transducer 7.4.1 Principle of linear variable differential Transformer (LVDT)	1
			7.4.2 Uses of LVDT	1
			7.5. Capacitive Transducer	1
12	23-05-22 to 28-06-22	4	7.5.1 General principle of capacitive transducer	1
			7.5.2 Variable area capacitive transducer.	1
			7.5.3 Change in distance between plate capacitive transducer.	1
			7.6. Piezo electric Transducer and Hall Effect Transducer with their applications.	1
13	30-06-22 to 04-06-22	4	cont.....	1
			OSCILLOSCOPE 8.1. Principle of operation of Cathode Ray Tube.	1
			8.2. Principle of operation of Oscilloscope (with help of block diagram).	1
			8.3. Measurement of DC Voltage & current	1
14	06-06-22 to 10-06-22	5	cont.....	1
			8.4. Measurement of AC Voltage, current, phase & frequency	1
			cont.....	1
			revision	1
			revision	1

for
 Singh
 9/6/22
 H.O.D (ELECTRICAL)