

LESSON PLAN FOR SESSION 2022-23(SUMMER)

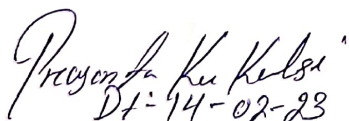
SUBJECT- ELECTRICAL MEASUREMENT & INSTRUMENTATION SEM -4th BRANCH -ELECTRICAL ENGG.

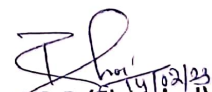
SI NO.	DATE	CHAPTER	TOPIC NAME	NO. OF PERIODS
1	14.02.23	MEASURING INSTRUMENTS	1.1 Define accuracy , precision , Error , Resolutions sensitivity and tolerance.	1
2	15.02.23		1.2 classification of measuring instruments.	1
3	16.02.23		1.2 CONTINUEING	1
4	20.02.23		1.3 Explain deflection , controlling and damping arrangement in indicating type of instruments.	1
5	21.02.23		1.3 CONTINUEING	1
6	22.02.23		1.4 calibration of instruments.	1
7	23.02.23	ANALOG AMMETERS AND VOLTMETERS	2.1 Describe construction , principle of operation , errors , ranges merits and demerits of:	1
8	25.02.23		2.1 CONTINUEING	1
9	27.02.23		2.1.1 moving iron type instruments.	1
10	28.02.23		2.1.2 Permanent magnet moving coil type instruments.	1
11	27.2.23		2.1.2 CONTINUEING	1
12	28.02.23		2.1.3 Dynamometer type instruments.	1
13	01.03.23		2.1.4 Rectifier type instruments.	1
14	02.03.23		2.1.5 induction type instruments.	1
15	04.03.23		2.2 extend the range of instruments type wattmeter and methods of their correction.	1
16	06.03.23		2.2 CONTINUEING	1
17	09.03.23		2.3 solve numerical	1
18	11.03.23	WATTMETERS AND MEASUREMENT OF POWER	3.1 Describe construction , principle of working of dynamometer type wattmeter. (LPF and upf type)	1
19	13.03.23		3.1 CONTINUEING	1
20	14.03.23		3.2 The Errors in dynamometer type wattmeter and methods of their correction.	1
21	15.03.23		3.3 Discuss induction type watt meters.	1
22	16.03.23	ENERGY METERS AND	4.1 introduction	1
23	18.03.23		4.2 single phase induction type energy meters- construction , working principle and their compensation & adjustments.	1



24	20.03.23	MEASUREMENT OF ENERGY	4.2 CONTINUEING	1
25	21.03.23		4.3 testing of energy meters	1
26	22.03.23	EMEASURMENT OF SPEED FREQUENCY AND POWER FACTOR	5.1 techometers types and working principles.	1
27	23.03.23		5.2 principle of operation and construction of mechanical and electrical resonance type frequency meters.	1
28	25.03.23		5.2 CONTINUEING	1
29	27.03.23		5.3 principle of opration and working of dynamometer type single phase and three phase power factor meter.	1
30	28.03.23		5.3 CONTINUEING	1
31	29.03.23	MESURMENT OF RESISTANCE , INDUCTANCE & CAPACITANCE	6.1 Classification of resistance	1
32	03.04.23		6.1.1. Measurement of low resistance by potentiometer method	1
33	04.04.23		6.1.1CONTINUEING	1
34	05.04.23		6.1.2. Measurement of medium resistance by wheat Stone bridge method.	1
35	06.04.23		6.1.2 CONTINUEING	1
36	08.04.23		6.1.3. Measurement of high resistance by loss of charge method.	1
37	10.04.23		6.2 Construction, principle of operations of Megger & Earth tester for insulation resistance and earth resistance measurement	1
38	11.04.23		6.2 CONTINUEING	1
39	12.04.23		6.3 Construction and principles of Multimeter. (Analog and Digital)	1
40	13.04.23		6.4 Measurement of inductance by Maxwell's Bridge method.	1
41	15.04.23		6.5 Measurement of capacitance by Schering Bridge method	1
42	17.04.23		6.5 CONTINUEING	1
43	18.04.23		7.1. Define Transducer, sensing element or detector element and transduction elements.	1
44	19.04.23		CONTINUEING	1
45	20.04.23		7.2. Classify transducer. Give examples of various class of transducer.	1
46	22.04.23		7.2CONTINUEING	1
47	24.04.23		7.3. Resistive transducer	1
48	25.04.23		7.3.1 Linear and angular motion potentiometer.	1
49	26.04.23		7.3.2 Thermistor and Resistance thermometers.	1
50	27.04.23		7.3.3 Wire Resistance Strain Gauges	1

51	29.04.23	SENSORS AND TRANSDUCER	7.3.3 CONTINUEING	1
52	01.05.23		7.4. Inductive Transducer	1
53	02.05.23		7.4.1 Principle of linear variable differential Transformer (LVDT)	1
54	03.05.23		7.4.1 CONTINUEING	1
55	04.05.23		7.4.2 Uses of LVDT.	1
56	06.05.23		7.5. Capacitive Transducer.	1
57	08.05.23		7.5.1 General principle of capacitive transducer.	1
58	09.05.23		7.5.1 CONTINUEING	1
59	10.05.23		7.5.2 Variable area capacitive transducer.	1
60	11.05.23		7.5.3 Change in distance between plate capacitive transducer.	1
61	13.05.23		7.5.3 CONTINUEING	1
62	15.05.23		7.6. Piezo electric Transducer and Hall Effect Transducer with their applications.	1
63	16.05.23	OSCILLOSCOPE	8.1. Principle of operation of Cathode Ray Tube.	1
64	17.05.23		8.2. Principle of operation of Oscilloscope (with help of block diagram).	1
65	18.05.23		8.2 CONTINUEING	1
66	20.05.23		8.3. Measurement of DC Voltage & current.	1
67	22.05.23		8.4. Measurement of AC Voltage, current, phase & frequency.	1
68	23.05.23		8.4 CONTINUEING	1
TOTAL CLASS				68


 DT: 14-02-23
 Prepared by
 Prasanta ku. kalasi
 Lect(Electrical)
 G.P .Sonepur


 H.O.D (Electrical)
 G.P .Sonepur