

LESSON PLAN

JHARSUGUDA ENGINEERING SCHOOL, JHARSUGUDA

Academic Year: 2021-22	Name of the Faculty: Suprasad Pal
Course name: Basic electrical engineering	Course No: TH4(a)
Branch: Electrical	Program: Diploma
Section: A	Year/Sem: 1st/2nd

SL.NO	PERIODS	Teaching methods	Time (minutes)	Topics to be covered	units
1	1	Green board	55	Concept of current flow, source and load. Ohm's law and concept of resistance.	1
2	2	Green board	55	Relation of V, I & R in series circuit & parallel circuit	1
3	3	Green board	55	Division of current in parallel circuit. Numerical problem on equivalent resistance.	1
4	4	Green board	55	Effect of power in series & parallel circuit. And a problem.	1
5	5	Green board	55	Kirchhoff's Law. Problems based on Kirchhoff's law.	1
6	6	Digital board	55	Generation of alternating emf. Difference between D.C. & A.C.	2
7	7	Green board	55	Various AC terms. Explanation of rms value, average value, Amplitude factor & Form factor.	2
8	8	Green board	55	Representing AC values in phasor diagrams. simple problems on FF, AF.	2
9	9	Digital board	55	AC through pure resistance, inductance & capacitance.	2
10	10	Digital board	55	AC through RL, RC series circuits, power factor, power, power triangle & impedance triangle.	2
11	11	Digital board	55	AC through RLC series circuits, power factor, power. Impedance triangle and power triangle.	2
12	12	Green board	55	Simple problems on RL, RC series circuits.	2
13	13	Green board	55	Simple problems on RLC series circuits.	2

14	14	Digital board	55	Steam power station(Thermal power station)	3
15	15	Digital board	55	Hydro electric power station.	3
16	16	Digital board	55	Nuclear power station	3
17	17	Digital board	55	Introduction of DC machines & the Main parts of DC machines.	4
18	18	Green board	55	Classification of DC generator& motor.	4
19	19	Green board	55	Uses of different types of DC generators & motors.	4
20	20	Green board	55	Types and uses of single phase induction motors.	4
21	21	Green board	55	Concept of Lumen.	4
22	22	Digital board	55	Different types of Lamps its Construction & its principle.	4
23	23	Green board	55	Star rating of home appliances.	4
24	24	Green board	55	Types of wiring for domestic installations.	5
25	25	Green board	55	Layout of household electrical wiring .	5
26	26	Green board	55	The basic protective devices used in house hold wiring.	5
27	27	Green board	55	Problems based on energy consumed in a small electrical installation.	5
28	28	Green board	55	Introduction to measuring instruments. Torques in instruments.	6
29	29	Green board	55	Different uses of PMMC type of instruments & MI type of instruments .	6

30	30	Green board	55	Connection diagram of A.C/ D.C Ammeter, voltmeter, energy meter and wattmeter.	6
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