

Lesson Plan

Discipline: Civil Engineering	Semester: First (1 st)	Name of the Faculty: Er. S.P Panda
Subject: Basic Electrical Engg.	No. of days/week class allotted: Three(3)	Semester from Date: 25.10.22 to Date: 31.01.23 No. of Weeks: 15
WEEK	CLASS DAY	THEORY TOPICS
1 st	1 st	Introduction ,Concept of current flow
	2 nd	Concept of source and load.
	3 rd	State Ohm's law and concept of resistance
2 nd	1 st	Relation of V, I & R in series circuit , Relation of V, I & R in parallel circuit
	2 nd	Division of current in parallel circuit , Effect of power in series & parallel circuit
	3 rd	State and explain Kirchhoff's Law.
3 rd	1 st	Simple problems on Kirchhoff's law.
	2 nd	Review Class
	3 rd	Generation of alternating emf, Difference between D.C. & A.C
4 th	1 st	Define Amplitude, instantaneous value, cycle, Time period, frequency, phase angle, phase difference.
	2 nd	State and explain RMS value
	3 rd	Monthly test
5 th	1 st	Average value
	2 nd	Amplitude factor & Form factor with Simple problems.
	3 rd	Represent AC values in phasor diagrams.
6 th	1 st	Explain AC through pure resistance inductance & capacitance
	2 nd	Explain AC though RL, RC, RLC series circuits.
	3 rd	Solve simple problems on RL, RC & RLC series & Parallel circuits.
7 th	1 st	Concept of power and Power factor
	2 nd	Explain impedance triangle and power triangle.
	3 rd	Monthly test

8 th	1 st	Review Class
	2 nd	Give elementary idea on generation of electricity from thermal, hydro power station with block diagram
	3 rd	Give elementary idea on generation of electricity from nuclear power station with block diagram
9 th	1 st	Review Class
	2 nd	Introduction of DC machines. Main parts of DC machines.
	3 rd	Classification of DC generators, Classification of DC Motor
10 th	1 st	Uses of different types of DC generator & motor
	2 nd	Types and uses of single phase induction motors.
	3 rd	Monthly test
11 th	1 st	Concept of Lumen
	2 nd	Different types of Lamps (Filament, Florescent, LED bulb) its construction & Principle.
	3 rd	Star rating of home appliances (Terminology, Energy efficiency, star rating concept)
12 th	1 st	Review Class
	2 nd	Types of wiring for domestic installation
	3 rd	Layout of household electrical wiring (single line diagram showing all the important component in the system).
13 th	1 st	List out the basic protective devices used in house hold wiring.
	2 nd	Calculate energy consumed in a small electrical installation.
	3 rd	Review Class
14 th	1 st	Introduction to measuring instruments.
	2 nd	Monthly test
	3 rd	Torques in instruments.
15 th	1 st	State different uses of PMMC type of instruments (Ammeter & Voltmeter).
	2 nd	Torques in instruments.
	3 rd	Review Class