LESSION PLAN FOR ACADEMIC SESSION:-2022-23

Discipline:- Civil/Electrical/Mechanical Engg	Semester:- 1st	Name of the teaching faculty:-TUKURAJ SOREN Lecturer.(E.E)
Subject:- Th.4(a) Basic Electrical Enggineering	No. of days/ per week class allotted:-2	Semester from:-15-09-2022 to 22-10-2022 Number of Weeks:-13
Week	Class day	Theory
1st	1st(26.10.2022)	**1. FUNDAMENTALS** 1.1 Concept of current flow. 1.2 Concept of source and load. 1.3 State Ohm's law and concept of resistance.
2nd	1st(31.10.2022)	1.4 Relation of V, I & R in series circuit. 1.5 Relation of V, I & R in parallel circuit.
	2nd(02.11.2022)	1.6 Division of current in parallel circuit. 1.7 Effect of power in series & parallel circuit.
3rd	1st(14.11.2022)	1.8 Kirchhoff's Law. 1.9 Simple problems on Kirchhoff's law.
	2nd(16.11.2022)	2. A.C. THEORY 2.1 Generation of alternating emf. 2.2 Difference between D.C. & A.C.
4th	1st(21.11.2022)	2.3 Define Amplitude, instantaneous value, cycle, Time period, frequency, phase angle, phase difference.
	2nd(23.11.2022)	2.4 State & Explain RMS value, Average value, Amplitude factor & Form factor with Simple problems. 2.5 Represent AC values in phasor diagrams.
5th	1st(28.11.2022)	2.6 AC through pure resistance, inductance & capacitance
	2nd(30.11.2022)	2.7 AC though RL, RC, RLC series circuits
6th	1st(05.12.2022)	2.7 AC though RL, RC, RLC series circuits
	2nd(07.12.2022)	2.8 Simple problems on RL, RC & RLC series circuits
7th	1st(12.12.2022)	2.9 Concept of Power and Power factor 2.10 Impedance triangle and power triangle.
	2nd(14.12.2022)	**3. GENERATION OF ELECTRICAL POWER** 3.1 Give elementary idea on generation of electricity from thermal power station with block diagram
8th	1st(19.12.2022)	3.1 Give elementary idea on generation of electricity from hydro power station with block diagram
	2nd(21.12.2022)	3.1 Give elementary idea on generation of electricity from nuclear power station with block diagram
9th	1st(02.01.2023)	**4. CONVERSION OF ELECTRICAL ENERGY** 4.1 Introduction of DC machines. 4.2 Main parts of DC machines.
	2nd(04.01.2023)	4.3 Classification of DC generator 4.4 Classification of DC motor. 4.5 Uses of different types of DC generators & motors.
10th	1st(09.01.2023)	4.6 Types and uses of single phase induction motors. 4.7 Concept of Lumen 4.8 Different types of Lamps (Filament, Fluorescent, LED bulb) its Construction and Principle.
	2nd(11.01.2023)	4.9 Star rating of home appliances (Terminology, Energy efficiency, Star rating Concept)

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11th	1st(16.01.2023)	**5. WIRING AND POWER BILLING** 5.1 Types of wiring for domestic installations. 5.2 Layout of household electrical wiring (single line diagram showing all the important component in the system).
	2nd(18.01.2023)	5.3 List out the basic protective devices used in house hold wiring. 5.4 Calculate energy consumed in a small electrical installation
12th	1st(23.01.2023)	**6. MEASURING INSTRUMENTS** 6.1 Introduction to measuring instruments.
	2nd(25.01.2023)	6.2 Torques in instruments. 6.3 Different uses of PMMC type of instruments (Ammeter & Voltmeter).
13th	1st(30.01.2023)	6.4 Different uses of MI type of instruments (Ammeter & Voltmeter). 6.5 Draw the connection diagram of A.C/ D.C Ammeter, voltmeter, energy meter and wattmeter. (Single phase only).

Teaching Faculty

Program Coordinator (E.E)

Academic Coordinator

PRINCIPAL
GOVT. POLYTECHNIC, NUAPADA