

KALINGA NAGAR POLY TECHNIC, TARAPUR, JAJPUR.**Lesson plan for 1ST SEM2023(winter)****Subject:(Th.4a)Branch: Electrical****Class allotted:- 02p/week Faculty name-Aisurya Mishra**

Discipline	Date/Period	From date:-16/08/23 To date:11/12/23	Teaching Aid
Subject:		Theory/ Practical –Topics/Lesson	
Weeks			
Week No-1	16/08/23 to 19/08/23	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. 1.4 Relation of V, I & R in series circuit. 1.5 Relation of V, I & R in parallel circuit.	White board & marker
Week No-2	21/08/23 to 26/08/23	1.6 Division of current in parallel circuit. 1.7 Effect of power in series & parallel circuit. 1.8 Kirchhoff's Law.	White board & marker
Week No-3	28/08/23 to 02/09/23	1.9 Simple problems on Kirchhoff's law. 2. A.C. THEORY 2.1 Generation of alternating emf. 2.2 Difference between D.C. & A.C.	White board & marker
Week No-4	04/09/23 to 09/09/23	2.3 Define Amplitude, instantaneous value, cycle, Time period, frequency, phase angle, phase difference. 2.4 State & Explain RMS value, Average value, Amplitude factor & Form factor with Simple problems. 2.5 Represent AC values in phasor diagrams	White board & marker
Week No-5	11/09/23 to 16/09/23	2.6 AC through pure resistance, inductance & capacitance 2.7 AC through RL, RC, RLC series circuits. 2.8 Simple problems on RL, RC & RLC series circuits.	White board & marker
Week No-6	18/09/23 to 23/09/23	2.9 Concept of Power and Power factor 2.10 Impedance triangle and power triangle.	White board & marker
Week No-7	25/09/23 to 30/09/23	3. GENERATION OF ELECTRICAL POWER 3.1 Give elementary idea on generation of electricity from thermal, hydro & nuclear power station with block diagram	White board & marker
Week No-8	03/10/23 to 07/10/23	4. CONVERSION OF ELECTRICAL ENERGY (No operation, Derivation, numerical problems) 4.1 Introduction of DC machines. 4.2 Main parts of DC machines. 4.3 Classification of DC generator	White board & marker
Week No-9	09/10/23 to 14/10/23	4.4 Classification of DC motor. 4.5 Uses of different types of DC generators & motors. 4.6 Types and uses of single phase induction motors.	White board & marker

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Week No-10	16/10/23 to 20/10/23	4.7 Concept of Lumen 4.8 Different types of Lamps (Filament, Fluorescent, LED bulb) its Construction and Principle. 4.9 Star rating of home appliances (Terminology, Energy efficiency, Star rating Concept)	White board & marker
Week No-11	30/10/23 to 04/11/23	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).	White board & marker
Week No-12	06/11/23 to 11/11/23	5.3 List out the basic protective devices used in house hold wiring. 5.4 Calculate energy consumed in a small electrical installation	White board & marker & smart board
Week No-13	13/11/23 to 18/11/23	6. MEASURING INSTRUMENTS 6.1 Introduction to measuring instruments. 6.2 Torques in instruments.	White board & marker
Week No-14	20/11/23 to 25/11/23	6.3 Different uses of PMMC type of instruments (Ammeter & Voltmeter). 6.4 Different uses of MI type of instruments (Ammeter & Voltmeter).	White board & marker & smart board
Week No-15	28/11/23 to 02/12/23	6.5 Draw the connection diagram of A.C/ D.C Ammeter, voltmeter, energy meter and wattmeter. (Single phase only).	White board & marker & smart board
Week No-16	04/12/23 to 09/12/23	Previous year question & answer discussion	White board & marker & smart board
Week No-17	11/12/23	Revision	


Signature of HOD


signature of faculty