LESSON PLAN

FUNDAMENTALS OF ELECTRICAL & ELECTRONICS ENGINEERING LAB (PR 07)

DISCIPLINE: ELECTRICAL ENGINEERING

YEAR: 1ST YEAR

BY: NRUSINGH CHARAN BEHERA

WEF: 17.08.26 TO 17.04.27

Class / Week	List of the Practical / Topics to be covered	No of Hours
W1	Determine the permeability of magnetic material by plotting its B-H curve.	2
W2	Measure voltage, current and power in 1-phase circuit with resistive load.	2
W3	Study of 1-phase transformer (structure).	2
W4	Connect single phase transformer and measure input and output quantities (Part-1).	2
W5	Determine the transformation ratio (K) of single phase transformer (Part-2).	2
W6	Study of different parts of DC machines.	2
W7	Study of PMMC and MI types of instruments: Ammeter and Voltmeter (Part-1).	2
W8	Study of PMMC and MI types of instruments: Ammeter and Voltmeter (Part-2).	2
W9	Study of PMMC and MI types of instruments: Wattmeter and Energy meter.	2
W10	Wiring Connection of Fluorescent lamp/tube light (Part-1).	2
W11	Wiring Connection of Fluorescent lamp/tube light (Part-2).	2
W12	Prepare an electrical switch board to control one light point and fuse (Part-1).	2
W13	Prepare an electrical switch board to control one plug point and one fan point (Part-2).	2
W14	Prepare a report on power billing (monthly) of a domestic single phase wiring system (Part-1).	2
W15	Finalize report and calculations on domestic power billing system (Part-2).	2

Course Outcomes:

After completion of the course the students will be able to:

CO:1	Perform measurements of electrical quantities in basic electrical circuits and magnetic circuits using appropriate instruments. Calculate voltage, current and power in 1-phase circuit.
CO:2	Identify the constructional features and operating principles of transformers, DC machines, and electrical measuring instruments. Distinguish various electronic components and measure values using multimeter.
CO:3	Demonstrate electrical wiring practices and analyze domestic electrical energy consumption and billing.

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