

Name of the Faculty Smt. Rajni Mehra
Discipline ELECTRICAL ENGG.
Semester 3rd
Subject ELECTRICAL ENGINEERING DESIGN & DRAWING
Lesson Plan Duration 15 weeks

Work Load (Lecture/Practical) per week (in periods): Lectures- Nil, Practicals- 06

Week	Practical Periods	Drawings Topic (including test)
1 st	1	UNIT I Simple Electrical Circuits, Electrical Symbols used in Electrical installation
	2	Schematic, single line and wiring diagrams of light
	3	fan point controlled by individual switches
2 nd	1	fluorescent tube controlled by one-way switch
	2	one lamp controlled by two switches (staircase circuit)
	3	Three lamps controlled by four switches (Corridor light circuit).
3 rd	1	Design and Drawing of panels/Distribution board using MCB, ELCB
	2	Main switches and change over switches for domestic installation
	3	Industrial and commercial installation.
4 th	1	UNIT II Contractor Control Circuits
	2	Design of circuit drawing of schematic diagram
	3	Power wiring diagram of following circuits, specification of contactors:-
5 th	1	DOL starting of 3-phase induction motor
	2	3-phase induction motor getting supply from selected feeder
	3	Forwarding/reversing of a 3-phase induction motor
6 th	1	Two speed control of 3-phase induction motor

	2	Sequential operating of two motors using time delay relay
	3	Manually generated star delta starter for 3-phase induction motor
7 th	1	Automatic star delta starter for 3-phase Induction Motor
	2	UNIT III Professional Control Circuits
	3	Draw the wiring diagram of battery connected to residential load.
8 th	1	Draw the wiring diagram of inverter connected to residential load.
	2	Draw the wiring diagram of standalone solar light system with battery for a residential house.
	3	Draw the wiring diagram of solar water heating system.
9 th	1	Key diagram of 11kV, 33kV sub-stations
	2	Key diagram of 66kV, 132 kV
	3	Draw pipe and plate Earthing.
10 th	1	Revision
	2	Revision
	3	Class Test
11 th	1	UNIT IV Orthographic Projections of Simple Electrical Parts
	2	Bus bar post
	3	Kit Kat Fuse
12 th	1	Pin type insulator (Pin Type 11kV/66kV)
	2	Suspension type insulator
	3	Shackle type insulator
13 th	1	Stay type insulator
	2	Rotor of a squirrel cage induction motor

	3	Stator of 3 phase Induction motor (Sectional View)
14 th	1	Slipring of 3 phase induction motor
	2	End Ring
	3	Terminal plate of induction motor
15 th	1	Class test
	2	Revision
	3	Revise old question paper