

COURSE TITLE : ELECTRICAL WORKSHOP PRACTICE
COURSE CODE : 3037
COURSE CATEGORY : B
PERIODS/WEEK : 6
PERIODS/SEMESTER : 90
CREDITS : 3

Course Objectives:

Sl.	Sub	On completion of this course the student will be able:
1	1	To comprehend with various wiring methods.
	2	To understand various wiring circuits in domestic and industrial wiring system.
	3	To comprehend with Electrical wiring.
	4	To understand the various tests on installations.
	5	To comprehend earthing and earth resistance measurements.
	6	To comprehend with maintenance of domestic appliances.

LIST OF PRACTICALS

- Safety precautions.
 - Draw the standard layout symbols and standard circuit diagram symbols.
1. Familiarization of Electrical wiring accessories.
 2. Carry out rigid PVC surface conduit wiring to control:
 - a) One lamp by one switch.
 - b) Two lamps and a socket outlet by independent switches.
 - c) One lamp from two different places (stair case) by two switches.
 - d) One lamp from multiple places using intermediate switch (more than two places).

- e) Lamps from different places (Godown wiring).
 - f) Lamps from different places independently and from one specific place by a Master switch.
 - g) Lamps from different places in series -parallel (Hospital wiring).
3. Test the working of following lamps.
 - a) Fluorescent lamps (with electromagnetic and electronic ballast).
 - b) Sodium vapour lamp.
 4. Carry out rigid PVC surface conduit wiring which contains Main switch, RCCB. Fuses (MCB), and sub circuits for light load and power load and control switches.
 5. Conduct testing of electrical installation (must be performed on a real existing installation like wiring in the college building.)
 - a) Insulation resistance test between conductors using an insulation tester.
 - b) Insulation resistance test between conductor and earth using an insulation tester.
 - c) Polarity test.
 6. Conduct soil resistivity test using an earth tester.
 7. Measure the resistance of the existing earthing arrangement using an earth tester.
 8. Conduct checking of armature winding using a Growler.
 9. Dismantle and assemble following domestic appliances.
 - a) Iron box
 - b) Mixer grinder/ Power drilling machine.
 - c) Single phase motor.
 - d) Ceiling and table fans.