

1/4 B.Tech FIRST SEMESTER

EE1L2

BASIC WORKSHOPS

Credits: 2

Lab/Practice: 3 periods/week

Internal assessment: 25 marks
Semester end examination: 50 marks

Objectives:

- To gain experience on different trades of Engineering like Carpentry, Tin Smithy, Welding and House Wiring.

Learning outcomes:

After performing the experiments listed in the syllabus, the students will be able to:

- Model and design various basic prototypes in the carpentry trade such as Lap joint, Lap Tee joint Dove tail joint, Mortise & Tenon joint, Cross-Lap joint.
- Design and model various basic prototypes in the trade of welding such as Lap joint, Lap Tee joint, Edge joint, Butt joint and Corner joint.
- Make various basic prototypes in the trade of tin smithy such as saw edge, wired edge, lap seam, grooved seam, and funnel preparations.
- Perform various basic House Wiring techniques such as connecting one lamp with one switch, connecting two lamps with one switch, connecting a fluorescent tube, stair case wiring, go down wiring.

Note: At least two exercises to be done from each trade.

Trade:

Carpentry

1. T-Lap Joint
2. Cross Lap Joint
3. Dovetail Joint
4. Mortise and Tennon Joint

Fitting

1. Vee Fit
2. Square Fit
3. Half Round Fit
4. Dovetail Fit

Black Smithy

1. Round rod to Square
2. S-Hook
3. Round Rod to Flat Ring
4. Round Rod to Square headed bolt

House Wiring

1. Parallel / Series Connection of three bulbs
2. Stair Case wiring
3. Florescent Lamp Fitting
4. Measurement of Earth Resistance

Tin Smithy

1. Taper Tray
2. Square Box without lid
3. Open Scoop
4. Funnel