

## WORKSHOP

Practicals : 3 periods / week

Sessional Marks : 40

Semester End Exam Marks : 60

Semester End Exam : 3 hrs

Credits : 2

### Course Objectives:

- To provide the students hands on experience to make different joints in carpentry with hand tools like jack plane, various chisels & hand saws
- To provide the students hands on experience to make different joints in welding with tools & equipment like electric arc welding machine, TIG Welding Machine, MIG Welding Machine, hack saws, chipping tools etc.
- To provide the students hands on experience to make different joints in Sheet metal work with hand tools like snips, stacks, nylon mallets etc.
- To provide the students hands on experience to make different connections in house wiring with hand tools like cutting pliers ,tester ,lamps& lamp holders etc .

### Course Outcomes:

To familiarize with

- The Basics of tools and equipment used in Carpentry, Tin Smithy, Welding and House Wiring.
- The production of simple models in the above four trades

### LIST OF EXPERIMENTS:

*Minimum four experiments should be conducted from each trade*

#### 1. CARPENTRY

To make the following jobs with hand tools

- a) Lap joint
- b) Lap Tee joint
- c) Dove tail joint
- d) Mortise & Tenon joint
- e) Cross-Lap joint

#### 2. WELDING USING ELECTRIC ARC WELDING PROCESS / GAS WELDING.

The following joints to be welded.

- a) Lap joint
- b) Tee joint
- c) Edge joint
- d) Butt joint
- e) Corner joint

#### 3. SHEET METAL OPERATIONS WITH HAND TOOLS.

- a) Rectangular Scoop
- b) Rectangular Tray

- c) Traingular Tray
- d) Pipe Joint
- e) Funnel

#### **4. HOUSE WIRING**

- a) To connect one lamp with one switch
- b) To connect two lamps with one switch
- c) To connect a fluorescent tube
- d) Stair case wiring
- e) Go down wiring

#### **REFERENCE BOOKS:**

- 1 Kannaiah P. & Narayana K. C., "Manual on Work Shop Practice", Scitech Publications, Chennai, 1999.
- 2 Workshop Lab Manual , R.V.R. & J.C. College of Engineering , Guntur.

