



**DEPARTMENT OF MECHANICAL ENGINEERING**

**Engineering Practices Laboratory**

**GE8261 (EVEN Semester)**

**Regulations: R17**

**List of experiments recommended as per Anna University**

**I CIVIL ENGINEERING PRACTICE**

**Buildings:**

(a) Study of plumbing and carpentry components of residential and industrial buildings. Safety aspects.

**Plumbing Works:**

(a) Study of pipeline joints, its location and functions: valves, taps, couplings, unions, reducers, and elbows in household fittings.

(b) Study of pipe connections requirements for pumps and turbines.

(c) Preparation of plumbing line sketches for water supply and sewage works.

(d) Hands-on-exercise:

Basic pipe connections – Mixed pipe material connection – Pipe connections with different joining components.

(e) Demonstration of plumbing requirements of high-rise buildings.

Carpentry using Power Tools only:

(a) Study of the joints in roofs, doors, windows and furniture.

(b) Hands-on-exercise:

Wood work, joints by sawing, planing and cutting.

**II MECHANICAL ENGINEERING PRACTICE**

**Welding:**

(a) Preparation of butt joints, lap joints and T- joints by Shielded metal arc welding.

(b) Gas welding practice

**Basic Machining:**

(a) Simple Turning and Taper turning

(b) Drilling Practice

**Sheet Metal Work:**

(a) Forming & Bending:

(b) Model making – Trays and funnels.

(c) Different type of joints.



**Machine assembly practice:**

- (a) Study of centrifugal pump
- (b) Study of air conditioner

**Demonstration on:**

- (a) Smithy operations, upsetting, swaging, setting down and bending. Example – Exercise – Production of hexagonal headed bolt.
- (b) Foundry operations like mould preparation for gear and step cone pulley.
- (c) Fitting – Exercises – Preparation of square fitting and V – fitting models.

**List of experiments beyond the Anna University**

1. Drilling, Reaming and Tapping in drilling machine
2. Plain turning operation in Wooden lathe machine ( Wooden material )