

Year & Sem:	Course Code:	Lab Name: <b>Mechanics of Solids</b>	No. of Credits: 2	L	T&PS	P
E1S2	ME1801			0	0	2

**Experiment-I:** To study the stress-strain characteristics (Tension) of ductile and brittle materials by using UTM

**Experiment-II:** To study the stress-strain characteristics (Compression) of ductile and brittle materials by using UTM

**Experiment-III:** To carry out bending test (III-point bending mode) using UTM

**Experiment-IV:** To carry out shear test on steel using UTM.

**Experiment-V:** To determine the young's modulus of elasticity of material of beam with simply supported end conditions

**Experiment-VI:** Determination of the hardness using Brinell, Rockwell and Vickers Hardness tester

**Experiment-VII:** To determine the notched and un-notched Impact strength using Izod Impact tester.

**Experiment-VIII:** To determine the notched and un-notched Impact strength using charpy Impact tester.

**Experiment-IX:** To conduct torsion test on MS rods

**Experiment-X:** To measure principal stress components and directions of principal stresses using photoelastic method

**Experiment-XI:** To determine the euler buckling load experimentally and to compare it with Eulers theory

**Experiment-XII:** To study the fatigue strength of the materials

**Experiment-XIII:** To calibrate the given proving ring by applying compressive force by U.T.M