

31035- MATERIAL TESTING LAB- I

DETAILED SYLLABUS

Part A

1. Tension test on mild steel / deformed steel bars.
2. Deflection test on Simply Supported Beams of
 - a. wood and
 - b. steel to find Young's modulus.
3. Torsion test on mild steel bar to determine the Modulus of Rigidity
4. Determination of the fineness of cement by Blains Permeability Apparatus or by sieve analysis.
5. Initial and final setting time of cement with Vicat's Apparatus.
6. Determination of normal consistency of cement by Vicat's Apparatus.

Part B

1. Finding Brinnel's / Rockwell's hardness numbers of the following materials.
 - i. Mild steel
 - ii. Brass
 - iii. Aluminium.
2. Compression Test on Wooden cube.
3. Double Shear test on M.S. bar.
4. Impact Test on mild steel by performing Izod /Charpy tests
5. Compression test on Bricks /Solid Blocks.
6. Water absorption test on Bricks /pressed tiles.
7. Flexure test on Tiles.

Part C: (Not for Examination)

1. Demonstration of Strain gauges and Strain indicators.
2. Demonstration of Soundness test on cement by Autoclave method.

REVISION & TEST