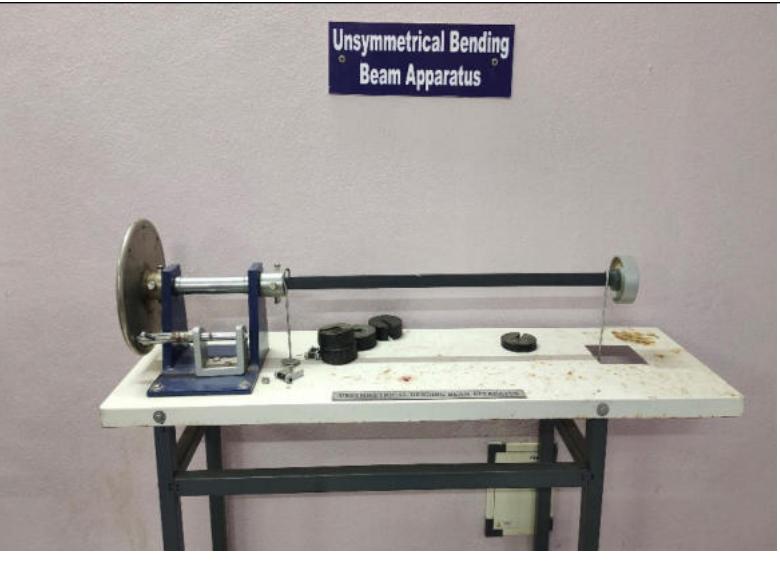


ANNAMACHARYA UNIVERSITY
CIVIL ENGINEERING DEPARTMENT

Name of the Lab: Strength of Materials Lab

Name of the Lab in-charge: Mr. Ashraf Ali Shaik

S.No.	Equipment Photo	Name of the Equipment	Specifications	Price
1.		Universal Testing Machine	Capacity: 100 Ton (1000 kN) Make: Enkay	Rs. 10,00,000/-

2.	 <p>The image shows an impact testing machine (Izod type) mounted on a white metal frame. A pendulum arm with a hammer is positioned at the top. A circular scale is attached to the vertical post. A digital display screen is mounted on the left side of the frame. A blue label on the wall behind the machine reads 'Impact Testing Machine' and 'INTERNAL' with a list of test types: 1. D, 2. E, 3. C, 4. B, 5. V, 6. Tc, and 7. Total.</p>	<p>Impact testing Machine</p>	<p>Charpy and Impact Tension Test (Izod Test) Pendulum drop angle: 140° / $85^\circ 21'$ Effective Weight: 20.996 kg / 22.057 kg Speed: 5.346 m/sec / 3.857 m/sec Impact Energy: 300 J / 164 J Min. Graduation: 2 J Distance of axis of hammer rotation and center of test piece: 825 mm Max. permission loss by friction & windage etc: 0.5 of max. impact energy Make: Heico</p>	<p>Rs 1,57,700/-</p>
3.	 <p>The image shows an unsymmetrical bending beam apparatus. It consists of a horizontal beam supported at one end by a hanger system with slotted weights. The other end of the beam is loaded. A dial gauge is used to measure the deflection at the loaded end. A blue label above the apparatus reads 'Unsymmetrical Bending Beam Apparatus'.</p>	<p>Unsymmetrical Bending Beam Apparatus</p>	<p>Beam Material: Mild steel Beam Cross-Section: Rectangular Loading Mechanism: Hanger with slotted weights. Support Type: One end fixed, other end loaded. Measuring Device: Dial gauge</p>	<p>Rs 33,750/-</p>

4.	 <p>Elastic Properties of Deflected beam Apparatus</p>	<p>Elastic Properties of Deflected beam Apparatus</p>	<p>Beam Length: 100cm. Beam Material: Steel. Supports: Rigid clamps. Loading Mechanism: Hanger with slotted weights applied at mid-span or different positions. Measurement: Dial gauge to measure deflection at mid-span.</p>	Rs 27,500/-
5.	 <p>Clerk Maxwell Reciprocal Theorem Apparatus</p>	<p>Clerk Maxwell Reciprocal Theorem Apparatus</p>	<p>Beam Setup: Simply supported beam. Supports: Knife-edge supports (rigid). Loading Mechanism: Hangers with slotted weights applied at two points. Deflection Measurement: Dial gauge Beam Material: Mild steel.</p>	Rs 27,500/-

6.	 <p>Brinell hardness Testing Machine</p> <p>Rockwell cum Brinell Hardness Testing Machine</p> <p>Test Loads (kgf): 60, 100, 150 (Rockwell); 187.5 (Brinell)</p> <p>Initial Loads (kgf): 10</p> <p>Max. Test Height (mm): 215</p> <p>Depth of Throat (mm): 132</p> <p>Max. Depth of Elevating Screw Below Base (mm): 230</p> <p>Size of Base (mm Approx.): 430 x 180</p> <p>Machine Height (mm): 635</p> <p>Net Weight (kg Approx.): 70</p> <p>Make: Heico</p>	<p>Brinell Hardness Testing Machine</p>	<p>Rockwell cum Brinell Hardness Testing Machine</p> <p>Test Loads (Kgf): 60, 100, 150 (Rockwell); 187.5 (Brinell)</p> <p>Initial Loads (Kgf): 10</p> <p>Max. Test Height (mm): 215</p> <p>Depth of Throat (mm): 132</p> <p>Max. Depth of Elevating Screw Below Base (mm): 230</p> <p>Size of Base (mm Approx.): 430 x 180</p> <p>Machine Height (mm): 635</p> <p>Net Weight (kg Approx.): 70</p> <p>Make: Heico</p>	Rs. 1,24,500/-
7.	 <p>Continuous Beam Apparatus</p> <p>CONTINUOUS BEAM APPARATUS</p>	<p>Continuous Beam Apparatus</p>	<p>Beam Length: 100 cm</p> <p>Supports: Combination of knife-edge, hinged, and roller supports (to simulate real boundary conditions).</p> <p>Loading Mechanism: Hangers with slotted weights applied at different spans.</p> <p>Measurement: Dial gauges</p>	Rs 31,500/-

8.	 <p>Deflection of steel beam apparatus is a mechanical test rig used to determine the deflection of a beam under load. It consists of a horizontal beam supported by two vertical columns. A dial gauge or deflection indicator is placed under the load point or at mid-span to measure the deflection. Slotted weights are used to apply load at various positions along the beam.</p>	<p>Deflection of Steel Beam Apparatus</p>	<p>Beam Length: 70–100 cm (approx.). Beam Material: Mild steel, brass, or aluminium. Supports: Simple supports (knife-edge supports). Loading Mechanism:<ul style="list-style-type: none"> • Hanger with slotted weights applied at mid-span or at various positions. Measurement:<ul style="list-style-type: none"> • Dial gauge / deflection indicator placed under load point or at mid-span. • Experimental values compared with theoretical </p>	Rs 27,500/-
9.	 <p>Torsion Test machine is used to determine the torsional strength of a material. It features a digital control panel with a keypad and display, a motor, and a pair of grips to hold the specimen. The machine can apply a maximum torque of 100 Nm and has various grip sizes for different bar diameters.</p>	<p>Torsion Test</p>	<p>Specification: HI 110.60 Max Torque Capacity (N-m): 100 Torque Ranges (N-m): 0-20, 20-100 Resolution (N-m): 0.01, 0.1 Torsion Speed: 0.5 R.P.M Clearance between Grips (mm): 0-420 Grips for Round bars (mm): 4-8, 8-12 Grips for Flat bars Width (mm): 1-5, 25 Motor: 3ph H.P. (approx.) 0.5 Make: Heico</p>	Rs. 2,90,500/-

10.		<p>Spring Test</p>	<p>Force in Tension & Compression (N): 2000 Clearance for Compression (mm): 0-500 Clearance for Tension (mm): 5-500 Sensitivity of Load (N): 1 Sensitivity of Displacement (mm): 0.1 Power Supply: 220V AC, 50Hz Make: Heico</p>	<p>Rs. 3,11,250/-</p>
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