

ANNAMACHARYA UNIVERSITY
CIVIL ENGINEERING DEPARTMENT

Name of the Lab: Concrete Technology

Name of the Lab in-charge: Mr. B. Raghunatha Reddy

S.No.	Equipment Photo	Name of the Equipment	Specifications	Price
1.		Compression Testing Machine	<ul style="list-style-type: none"> • Capacity - 2000 kN • Loading mode - Power-operated, continuous (no shock) • Load indicator - pace rate display • Make - Enkay 	Rs. 1,42,500/-

2.



Flexure Testing
Machine

- Capacity – 100 kN
- Type of Pumping – Manual
- Loading capacity – 0 to 100 kN
- Least Count – 0.5 kN
- Type of Loading – Third Point Loading
- Make – Enkay

Rs. 1,00,000/-

3.		<p>Water Permeability Test Equipment</p>	<ul style="list-style-type: none"> • Cylindrical specimens, 150 mm diameter × 150 mm height. • air compressor with pressure tank for steady flow. • Graduated glass burettes (0–50 ml, least count 0.1 ml) for measuring water passage through specimens. 	Rs. 65,000/-
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4.	 A red vertical air compressor tank with a black fan unit mounted on top. The fan unit has a circular metal mesh cover. A yellow cloth is draped over the side of the tank. The background shows a concrete floor and a wall with a blue sign that reads "WATER PENETRATION TEST".	<p>Water Penetration Test Equipment</p>	<ul style="list-style-type: none"> • Pressure cell: 0–15 kg/cm² • Sealing system: Rubber gaskets • Water supply: Stainless steel reservoir with inlet/outlet • Pressure gauge: 0–15 kg/cm², least count 0.1 kg/cm² 	Rs. 65,000/-
5.	 A silver cylindrical hammer probe with a black plunger at the end. The probe is resting on a wooden surface. A label on the probe reads "WARNING: DO NOT PRESSURE TEST IN VACUUM" and "NOT PRESSURE TEST IN VACUUM". The probe has a scale markings on its side.	<p>Rebound Hammer</p>	<ul style="list-style-type: none"> • Impact energy: • Rebound scale: 10 to 100 (or 0–100) units. • Accuracy / reproducibility: $\pm 1 - 2$ units. • Plunger: spring-loaded hammer mechanism • Housing: rugged casing, alignment guide, built-in scale. 	Rs. 16,740/-

6.	 <p>Blain's Apparatus</p>	<ul style="list-style-type: none"> Two circular filter papers, one below and one above the cement bed, of diameter ~ 12.7 mm. Rubber bulb for applying controlled air pressure 	Rs. 4,750/-
7.	 <p>RCPT Apparatus</p>	<ul style="list-style-type: none"> No. of Cells: 8 Cylindrical discs 100 mm diameter \times 50 mm thick 60 ± 0.1 V DC regulated power supply, ripple-free, with overcurrent protection. 	Rs. 1,36,660/-

8.		Compaction Factor Test	Upper Hopper Bottom diameter: 125 mm Height: 275 mm. Lower Hopper Top diameter: 225 mm Bottom diameter: 125 mm Height: 225 mm. Cylinder (Receiving Mould) Diameter: 150 mm Height: 300 mm.	Rs. 13,950/-

9.		<p>Vee-Bee Consistometer</p>	<ul style="list-style-type: none"> • Slump cone • Height: 300 mm • Top diameter: 100 mm • Bottom diameter: 200 mm • Cylindrical Container • Internal diameter: 240 mm • Height: 200 mm • Electric motor (0.5 HP) driving an eccentric shaft to produce vibration. 	<p>Rs. 13950/-</p>
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10.	 <p>VICAT'S APPARATUS</p> <p>The image shows a Vicat's apparatus, a device used to determine the setting time of cement. It consists of a vertical metal frame with a plunger at the top and a dial gauge for measuring penetration. The apparatus is mounted on a green base plate. To the right of the base plate is a yellow box labeled 'STANDARD STEELING'. The background is a concrete wall with a blue sign that reads 'VICAT'S APPARATUS'.</p>	<p>Vicat's Apparatus</p>	<ul style="list-style-type: none"> • Plunger: dia. 10mm, length 50mm • Initial setting needle: dia. 1.13mm, length 50mm • Final setting time needle: 1.13 mm with annular collar • Mould: frustum of cone 40 mm high upper dia. 70mm lower dia. 80mm 	<p>Rs. 3,225/-</p>
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11.		<p>Weighing Machine</p>	<ul style="list-style-type: none"> • Platform-type or electronic digital weighing machine • Least count 50g • Large digital LCD indicator • $230\text{ V} \pm 10\%$, 50 Hz, single-phase AC or rechargeable battery backup 	<p>Rs. 16,250/-</p>
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12.		Accelerated Curing tank	<ul style="list-style-type: none"> • 12-cube capacity. • Immersion heaters (stainless steel sheathed), total load 2 kW • Digital temperature controller cum indicator with thermostat and sensor 	Rs. 75,000/-
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