









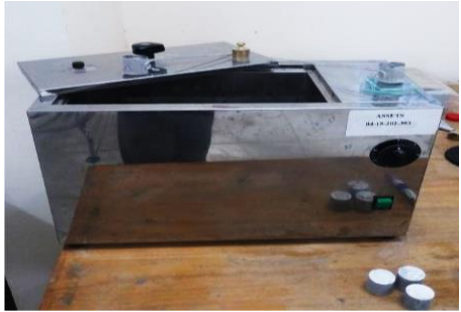
❖ Materials Lab

No	Device name	Device photo	Description of the Equipment
1	Concrete Compression Machine (3000 KN)	 A large industrial machine with a blue frame and a black central column, used for testing concrete specimens.	The compression testing machine is used for determine compressive strength of samples Bricks, cement & gypsum pastes, and concrete specimens.
2	Reducing Field Sample Apparatus	 A blue metal apparatus with a hopper and a collection tray, used for reducing field samples of aggregates.	To obtain laboratory samples of aggregates from stockpiles, by split samples of aggregate random.
3	Los Angeles Machine	 A blue industrial machine with a hopper and a motor, used for testing the resistance to degradation of coarse aggregate.	This test method covers test sizes of coarse for resistance to degradation using the Los Angeles testing machine, also it used to calculate abrasion of coarse aggregate.








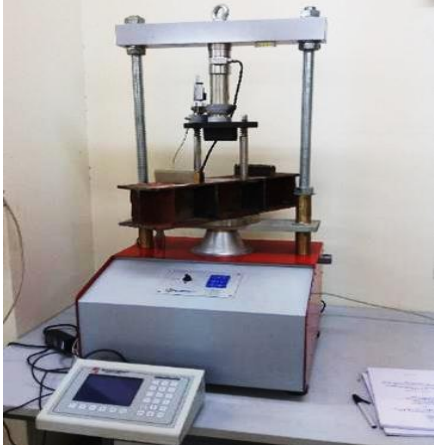
No	Device name	Device photo	Description of the Equipment
4	Mechanical Sieve Shaker		<p>To determination of particle size distribution of coarse and fine aggregates by sieving or screening and determination the fineness of hydraulic cement by No.100 or No. 200 sieve.</p>
5	Aggregate Crushing Test Apparatus		<p>This method of test covers the procedure for determining the aggregate crushing value of coarse aggregate.</p>
6	Unit Weight Measures		<p>This test method covers the determination of unit weight in a compacted or loose condition and calculation of voids in Concrete or fine and coarse aggregates.</p>






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7	Laboratory Oven		<p>Laboratory oven is convection appliances for general purposes. Applications include sterilization, experiment management, drying, processing, and testing of concrete, soil.</p>
8	Vicat's Apparatus		<p>Vicat's apparatus is used to find out the consistency, initial setting time and final setting time of the cement.</p>
9	Soundness of Cement by Le-Chatelier Method Apparatus		<p>Le Chatelier water bath is used with Le Chatelier moulds for the determination of the soundness of cement paste.</p>






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10	<p>Vibration Machine to Cement Mortar</p>		<p>This machine is used to compact the cement mortar samples in the cube mold.</p>
11	<p>Cement Mortar Molds</p>		<p>The cement mortar molds use to casting cement mortar for preparing the samples to compression test.</p>
12	<p>Mill Balls Apparatus</p>		<p>A ball mill is a type of grinder used to grind and blend materials for use in minerals concrete and cement minerals additives.</p>





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13	Cutting Machine	 <p>A large industrial cutting machine with a prominent orange frame and a blue motor. It is designed for cutting large, solid samples of concrete, rocks, and bricks.</p>	The cutter machine is used to cut the solid samples of concrete, rocks, and bricks.
14	Core Machine	 <p>A core machine used for extracting solid core samples. It features a vertical shaft and a motor, mounted on a blue base. A large cylindrical core sample is visible at the bottom.</p>	The core machine is used to take the solid core samples of concrete, rocks, asphalt and bricks.
15	Flexural Strength Test Machine	 <p>A flexural strength test machine consisting of a metal frame with two vertical supports and a central loading mechanism. A control panel with a digital display is positioned in front of the machine.</p>	Machine of flexural strength test is generally used to determine the flexural modulus or flexural strength of material.





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16	Mechanical Mixer for Concrete		The mechanical mixer for concrete generally used to mix concrete materials.
17	Concrete Molds		The molds for concrete generally used for casting the concrete samples depending on specimen test, compressive, tensile and flexural strength.
18	Vibration Machine for Concrete		The vibration machine for concrete generally used to compacting concrete in the molds.




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19	Slump Test Apparatus		<p>The slump test apparatus for concrete generally used to determine the relative consistency of freshly mixed concrete.</p>
20	Compacting Factor Apparatus		<p>Freshly mixed concrete by the use of Compacting.</p>
21	Schmidt Hammer		<p>Schmidt hammers or concrete test hammers, is used to determine in-place strength of concrete.</p>

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22	Ultrasonic Pulse Velocity		Ultrasonic pulse velocity test is an in-situ, non-destructive test to check the quality of concrete and natural rocks. In this test, the strength and quality of concrete or rock is assessed by measuring the velocity of an ultrasonic pulse passing through a concrete.
23	Rebar Detection		Rebar detection is a sophisticated device for the non-destructive location of rebars and for the measurement of concrete cover and bar diameter.
24	Apparatus Cement Flow Table		This apparatus is used to determine the flow of hydraulic cement, mortars and cement pastes. A test specimen is molded on the table to a specified volume and shape. Then, with the mold removed, leaving the test specimen on the table.
25	Concrete Thermometer		Concrete thermometer is used to determine temperature of freshly mixed concrete in site or lab.

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26	L-Box test Apparatus	 <p>The image shows an L-shaped metal test apparatus used for measuring the flowability of self-compacting concrete. It consists of a rectangular base and a vertical side panel that can be tilted to allow the concrete to flow out.</p>	<p>The apparatus of L-box test is used to measure the filling and passing ability of self-compacting concrete.</p>
27	V-Funnel Test Apparatus	 <p>The image shows a V-shaped metal funnel apparatus used for evaluating the flow time of freshly mixed self-compacting concrete. It has a wide top opening and a narrow bottom opening, mounted on a stand.</p>	<p>V-Funnel apparatus is used to evaluate the flow time of freshly mixed self-compacting concrete.</p>



No	Device name	Device photo	Description of the Equipment
28	Concrete Curing Tank	 A photograph of a concrete curing tank. It is a large, rectangular, metallic container, likely made of stainless steel or aluminum, filled with water. Inside the tank, several concrete samples are visible, resting on a wooden frame. A control panel with a digital display and buttons is attached to the side of the tank. The tank is situated in a laboratory or workshop environment.	Concrete curing tank is used to cure concrete samples