#### **CIVIL ENGINEERING DEPARTMENT**

# 1. Geotechnical Engineering Lab

Package Name: CIVIL P3 (Geotech Lab)

Package Code: TEQIP-III/BH/dced/214

Sr. No.	Details of instruments / equipment	Quantity
1	G.I Sieves: 80 mm, 40 mm, 20 mm, 10 mm, 4.75 mm, pan and cover (set)	02
2	Brass Sieves: 4.75 mm, 2.36 mm, 1.18 mm, 600 micron, 300 micron, 150 micron, 75 micron, pan and cover (set)	02
3	Triaxial Test Apparatus Standard IS: 2720 (Part XI & XII) Loading pad, Pair of plain discs made of Perspex, Pair of porous stones, One dozen rubber sheaths, One plastic drainage tube, TRIAXIAL CELL,12 nos rubber membranes, 4 nos. sealing ring, mould, drainage tube.	01
4	Direct Shear Test Apparatus Capacity 2kN – 50 kN, Standards IS:11229, 2720 (Part 13) Loading Unit with V-strips, Loading yoke, Fixtures for proving ring, brackets for holding consolidation and strain dial gauges, Shear box assembly, 2 Plain gripper plates, 2 Perforated gripper plates, 2 Porous stones, Top loading pad	01
5	Proctor mould (capacity 944 cc)	05
6	Mixing Pan (Aluminium or stainless steel medium size)  Permeability mould	05
7	Metallic Mould, 100 mm dia x 127.3 mm height, 1,000 ml volume	02

#### 2. Material Testing Lab

Package Name: CIVIL P4 (MT LAB)

Package Code: TEQIP-III/BH/dced/215

Sr. No.	Details of instruments / equipment	Quantity
1	Compression Testing Machine	01
	500 KN capacity	
2	Slump Cone Apparatus	01
	As per ISI specification	
3	Universal Testing Machine	01
	Capacities from 100 kN to 2000 kN.	
4	Brass Sieve 90 micron meter	04
5	Curing Tank	01
	Capacity 24/48 cubes of 150mm/70.6mm size	

Note: Detailed specification of all items will be attached in the invitation letter.

### 3. Transportation Engineering Lab

Package Name: CIVIL P5 (TE LAB)

Package Code: TEQIP-III/BH/dced/216

Sr. No.	Details of instruments / equipment	Quantity
1	California bearing ratio (C.B.R.) test apparatus equipped with all accessories.	01

### 4. Geotechnical Engineering Lab

Package Name: CIVIL P6 (Supporting item for geotech lab)

Package Code: TEQIP-III/BH/dced/217

#### Supporting Items requirement for geotechnical engineering lab

Sr.	Details of instruments / equipment	Quantity
No.		
1	Volumetric Flask 25 ml	5
2	Volumetric Flask 50 ml	5
3	Volumetric Flask 100 ml	5
4	Volumetric Flask 250 ml	5
5	Volumetric Flask 500 ml	5
6	Volumetric Flask 1000 ml	10
7	Volumetric Flask 2000 ml	5
8	Volumetric Flask 50 ml	20
9	Linear Shrinkage Mould	10
10	Desiccators	5
11	Spatula	10
12	Measuring Cylinder (plastic) 100 ml	5
13	Measuring Cylinder (plastic) 250 ml	10
14	Measuring Cylinder (plastic) 500 ml	10
15	Measuring Cylinder (plastic) 1000 ml	15
16	Measuring Cylinder (glass) 1000 ml	2
17	Whatman Filter paper (packet)	5

## 5. Surveying and Geomatics Lab

Package Name: CIVIL P7 (Survey Lab)

Package Code: TEQIP- III/BH/dced/226

Sr. No.	Details of instruments / equipment	Quantity
1	Metric Chain(30 m)	
	Tallies: fixed at every five-meter length	02
	brass rings: at every meter length except at a place of tallies	
2	Metric Chain(20 m)	
	Tallies: fixed at every five-meter length	02
2	brass rings: at every meter length except at a place of tallies	
3	Gunter Chain	02
	66 feet, tally of brass is attached at every tenth link	02
4	Revenue Chain	02
	16 links and of length 33 ft	02
5	Invar Tape	02
	tape width 6 mm and length 30 m	02
6	Measuring Tape	
	50 Meter Fiber Plastika Measuring Tape	02
	Non-Conductive, Water Resistant And Easy To Clean.	
7	Measuring Tape	
	7.5 m, width 25 mm, Carbon Steel, ABS, PVC	02
	Size: 103 x 35 x 84 mm	
8	Wooden pegs	50
	40mm square by 50cm long	20
9	Mallet wooden	04
10	Arrow (Metal)	25
	steel wire of diameter 4mm, red cloth is tied on circular bend portion	23
11	Cross staff	04
	Open Type Brass 6" With Steel Pole,	01
12`	Optical Square	0.4
	Consists of Brass / suitable metal hollow box having open face about 6 x 3 cm	04
4.2	and closed face about 2 x 3 cm with a brass handle about 8cm in length.	
13	Plane table with all accessories	
	Alidade, Plumbing fork with plumb bob., Spirit level brass, Trough compass,	02
	Drawing sheets and accessories for drawing, Carrying Bag for Board, Brass Head & plate, Sight vane, Plumbing Fork, Plumb Bob., Plane Table Board:	02
	600x750x16 mm	
14	Prismatic Compas with tripod	6.1
•	Well magnetized needle, automatic lifter and prism reading, hinged coloured	04

	shades and reflector with tripod stand having ball and socket.	
15	Dumpy Level with tripod and staff Internal focusing telescope having 3 foot screws leveling base with locking arrangement, screw focusing eye piece, highly sensitive spirit bubbles	02
16	Direct reading transist theodolite 2" with tripod Telescope length 178 mm with focusing screw fitted with eye piece, glass diaphragm with Stadia 1:100, dust and water proof	02
17	Line Ranger Light Source 1310+/- 20nm LD, Power Supply 3V~6V, Non-condensing	05