



प्राचार्य का कार्यालय  
राजकीय पोलिटेकनिक, भागलपुर  
ग्राम + पोस्ट - बरारी, भागलपुर- 812003

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पत्रांक :- 6145 / भागलपुर,

दिनांक :- 15-10-2024

## **CORRIGENDUM NOTICE**

### **E-PROC System Tender N0: 73082 DATED :30-09-2024**

With reference to new guidelines provided through Departmental letter no 4541 dated 15-10-2024, the list of items to be procured through on-going e-proc system tender no. - 73082 dated 30-09-2024 has been changed. The updated BOQ is attached with this notice and the same has been updated on the E-PROC system and RFP document. Bidders are requested to kindly consider this updated BOQ for participation in this tender.

**N.B.- All other conditions remain unchanged.**

Principal

Government Polytechnic Bhagalpur

*[Handwritten signature]*

**BOQ Of Supply of Machines and Equipments for Civil Engineering Lab at Govt.  
Polytechnic, Bhagalpur**

**FINANCIAL BID FORMAT**

Name of Tenderer		
Contact person with complete address		
Email & Mobile No.		

**NAME OF LAB-SURVEYING**

S. No.	Name	Specification	UOM	Quantity	Unit Price	Total Amount (A)	GST /Tax amount (B)	Gross Amount (C=A+B)
1	Direct reading transit theodolite 2" with tripod	Angular accuracy- 2" Telescope. Min magnification- 30 X Min objective aperture -45 mm. Minimum focusing vial 30"(/2mm) or better, Sensitivity of circular level vial 8(/2mm) or better. Display LCD both side. Lummet-laser/optical	No's	5				
2	Dumpy level with tripod	Min Telescope length- 228mm, Min diaphragm Etched on glass with stadia 1:100, Screw focusing eye piece, Highly sensitive spirit bubbles, aperture not less than 3.76cm . Min Magnification 38 X, Magnetic compass, longitudinal bubble	No's	5				
3	Prismatic compass with tripod	Aluminium ring, Magnetized needle, automatic lifter and prism readin, hinged coloured shades and reflector, tripod stand, Aluminium Stand.	No's	10				
4	Cross Staff	Cross Staff Wooden 4"x4"x2" with steel Pole	No's	2				
5	Optical Square	Optical Square PWD Pattern	No's	10				
6	Ranging Rod (Steel) 4m	Socket type (30mm Dia.) : : made of Steel conduit pipe alternatively painted black and White or red and white. Fitted with Strong shoe at the bottom, Size 4 Mtr	No's	20				
7	Ranging Rod (Steel) 3m	Socket type (30mm Dia.) : : made of Steel conduit pipe alternatively painted black and White or red and white. Fitted with Strong shoe at the bottom, Size 3 Mtr	No's	20				
8	Leveling Staff (4m)	Made of aluminium Channel. Screen printed figures in four five section and six respectively. Packed in canvas cover	No's	10				
9	Leveling Staff (5m)	Made of aluminium Channel. Screen printed figures in four five section and six respectively. Packed in canvas cover	No's	10				
10	Leveling Staff (6m)	Made of aluminium Channel. Screen printed figures in four five section and six respectively. Packed in canvas cover	No's	10				
11	Engineers Measuring Chain 30m	10 arrows made of 8 SWG Wire (Size Dia. 4mm & L. 30cm)	No's	5				
12	Metallic Tape 30m,	Measuring Metallic Tape	No's	5				
13	Arrows (Metal)	Arrows made of 8 SWG wire	No's	20				
14	Mallet and pegs (wooden)	Wooden peg and Mallet	No's	5				
15	Spirit Level	BRASS MADE SIZE 6"	No's	5				
16	Invar Tape 30m	FIBER GLASS TAPE of Length 30M	No's	2				
17	Surveyor compass	Surveyor compass with all accessories	No's	2				
18	Stand	standard stand	No's	3				
19	Chain	Engineers Measuring chain 30m made of SWG Nos. 8 with 100 links Size 30m Long with 150 links 15 arrows	No's					

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20	Metallic Tape 10m.	Measuring Metallic Tape	No's	5				
21	Pegs	Pegs (wooden)	No's	50				
22	Hammer	Hammer (1kg)	No's	5				
23	Plane Table and its accessories	Plane table with accessories Size (750*600)mm * 15mm Thickness. Sight vane, Size 600mm, made of brass of 2mm thickness, in wooden box magnetic compass, size 150mm, made of aluminium alloy, in wooden box. Plumb Bob made of Steel with suspending cord plumbing Fork, Made of Aluminium. Spirit Level made of aluminium in wooden box strong canvas carrying case This plane Table set is supplied along with aluminium telescopic Stand	No's					
24	Metallic Tape 5m.	Measuring Metallic Tape	No's	5				
25	Prism Square	To lay off right angles that are multiples of 90 degree or of 45 degree	No's	5				
26	Clinometer	This manipulative is to measure angle of elevation or depression of any objected. This model can be used to find height and distance of a building etc. Provided in durable box. Optical adjustment for reading	No's	2				
27	Tachometer	Specification : 5 digit 18 mm (0.6") white backlight LCD accuracy $\pm(0.05\% + 1 \text{ digit})$ Sampling time : 0.5sec(over 120RPM) Range Select : Auto-switch Memory : Max. Value. Min. Value, last value can store 96s data time base. 6MHz Quartz crystal Detecting Distance : 50-50mm Power Consumption : Approx. 55mA Measuring range : 2.5-99999RPM Resolution 0.1RPM (2.5-999.9RPM) 1RPM(over1000RPM) Total Test Range : 1-99999 Frequency Range: 1-1666.6Hz Resolution: 0.01Hz time Base Accuracy 10x10- 6(0-50degree C.) Power: 3x1.5V AA battery	No's	2				

**Concrete Technology Lab.**

1	Compaction Factor Apparatus	Material of Construction: Special quality low carbon mild steel. Paint quality:-Powder coating 70-80 micron thick for determination of workability determination of concrete mixes of very low workability such as those normally used with concrete, compacted by vibration. Concrete mix having maximum size of aggregate not exceeding 38 mm, can be tested for workability. Compaction Factor Apparatus is complete with hoppers and receiver assembly, Tamping Rod of 16 mm dia x 60 cm long having a Hooper and two trowels. As per IS- 1199, 5515 & BS 1881-103	No's	2				
2	Slump Test Apparatus	Slump Test Apparatus with testing rod and base plate, consisting of Slump Cone, Base plate (200mm and height 300mm) with swivel handle, Tamping rod steel, 16 mm dia x 600 mm length as per ISI 7320	No's	4				
3	Vee bee Consisto meter	Material of Construction:Special quality low carbon mild steel with good paint quality Vibrator Table : Min 380*260. Four rubber shock absorbers with A.C. supply motor 415 volts, 3 phase, One metal pot, One slump cone, One swivel arm with metal cone, One graduated rod, One perspex disc. One tamping rod as per IS 1199	No's	2				
4	Cement Mortar Moulds	Cement Mortar Mould, Steel, for 70.6mm cube with ISI certification mark, IS:10086, machined with a permissible variation of 0.15mm and finished within tolerances of +0.15mm - 0.10mm	No's	10				

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5	Cylindrical Moulds	Cast Iron, Split Lengthwise 150mm dia x 300mm high with baseplate and top plate	No's	5				
6	Cube Moulds	Cast Iron, for 150mm Cube with ISI Certification IS:10086 Angle between adjacent interior faces and between interior faces and top and bottom plates of mould-90 $\pm$ 0.5Deg length of base plate -Min. 280mm Width of base plate -Min. 215mm Machined flat to $\pm$ 0.02 mm of accuracy and finished to within $\pm$ 0.2 mm of specified dimensions. Approx wt minimum to 14kg	No's	10				
7	Le Chatelier Flask	Le-Chatelier Flask, determination of specific gravity of hydraulic cement as specified in IS:4031-1968.	No's	5				
8	Le-Chatelier Apparatus	Le-Chatelier Mould with IS 269, 712 6392 Part-IX. This unit comprises of a metal sleeve with a hook and set of screw to fit over one of the mould pointers and a clamp to fit on to the other pointer of the mould.	No's	5				
9	Standard Vicat's Apparatus	Vicat Apparatus with ISI Certification Mark, IS:5513.	No's	5				
10	Needle Vibrator	Immersion Type Needle Vibrator, Electrically Operated, Motor-Single Phase 2HP, Needle Dia-40mm Length (including Needle) 4-5 Mtrs.	No's	1				
11	Digital Weighing Balance	Electronic Balance, Capacity Min: 20kg $\pm$ 2g	No's	1				
12	Digital Platform Balance	Electronic Balance, Capacity Min: 100kg $\pm$ 10g	No's	1				
13	Trowel	made of iron, standard size	No's	10				
14	spatulla	100mm, 150mm, 200mm blade of iron	No's	10				
15	guinia	made of iron, 200mmx 100mm metallic	No's	10				
16	spirit level	digital, made of brass	No's	10				
17	Floor Tile testing machine (Flexure and abrasion) with all accessories	Size: 280 $\times$ 150 $\times$ 100mm: Voltage 220 V: Displacement measurement error $\leq$ 0.01mm, Temperature record value error: $\pm$ 1%	No's	1				
18	Weight	2kg, 1kg, 100g, 200g, 50g, 500g	Set	1				
19	Weight Hanger	Provided with hook, made of steel	No's	1				
20	steel scale	300mm size	No's	5				
21	Thickness and Length Gauge for Flakness and Elongation Index	material - SS, Application Thickness & Length Gauge	No's	5				
22	I.S. Sieves Set	Sieves 20 cm diameter brass Aperture size 4.75 mm, 2.36 mm, 1.18mm, 600 micron, 300 micron, 150 micron and 75 micron as per IS 460	No's	2				
<b>PJIE (Public Health Engineering) Lab</b>								
1	pH meter	20 x 2 line back lighted LCD display., pH Meter complies to USP and DIN standards, alphanumeric splash waterproof polyester keyboard with soft keys., Range 0 $^{\circ}$ to 150 $^{\circ}$ C.	No's	1				

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2	Turbidity meter	0 - 10,000 NTU , $\pm$ 2% of reading plus 0.01 NTU (0 to 1000 NTU) $\pm$ 5% of reading (1000 to 4000 NTU) $\pm$ 10% of reading (4000 to 10,000 NTU) , Response Time: less than 6 seconds, Sample Size: 30ml, Operating Temperature: 0° - 50°C	No's	1				
3	Test tube	Glass Test Tube - 150 mm tall x 16 mm with 14 mm inside diameter. Approximate volume is 22 mL. Borosil	No's	24				
4	MAGNETIC STIRRER WITH HOT PLATE	Number of stirring Positions: 1 Calibration: Automatic Calibration Type of Drive Motor: Motorless magnetic coil type Display Option/Output Read out Option: Digital Magnetic stirrer is: with a hot plate or some other means for heating the liquid Controller type: Electronically controlled and Programmable Speed Control Accuracy of set speed (+/-) (RPM): 0 Maximum Stirring capacity per position: 2000 milliliter Ceramic Top Plate Material, Digital Front Panel, Last run memory CE certified Product (seller to furnish supporting document to Buyer on demand) SPEED Speed Mode: Variable Speed Minimum Speed Possible (RPM): 50 Maximum Speed (RPM) of variable speed mode equipment: 1600 DIMENSIONS External Dimension: (Height )200 millimeter External Dimension: Width 200 millimeter External Dimension: Depth: 50 millimeter Body Material: Stainless Steel Finish of Body material: Powder coated Top plate Finish: Ceramic coated STIR BAR Stir bar cover material: PTFE QUOTED ALNICO MAGNET Stir Bar length: 200 millimeter TOP PLATE Top plate area shape: Circular Circular Top plate diameter: 1000 millimeter Top plate Finish: Ceramic coated	No's	1				
5	Burette	50 ml, made of Borosil	No's	6				
6	Burette. stand with rod, clamp & boss head	Base 8" x 5", Rod 2411 long, 1.1tree finger clamp	No's	10				
7	Conical Flask	250 ml, made of Borosil	No's	6				
8	Pipette,	25 ml, made of Borosil	No's	10				
9	Rubber gloves,	Nitrile rubber (L Size)	Box	4				
10	Apron	White Cloth Lab Apron (M size)	No's	5				
11	Nessler Tube	Borosil glass, 3.3mm thick, and 100ml capacity	No's	6				
12	Glass test tubes	Glass Test Tube - 150 mm tall x 16 mm with 14 mm inside diameter. Approximate volume is 22 mL. made of Borosil	No's	24				
13	Thermometer	Digital display, accuracy +/- 1°c	No's	3				
14	Petri Dish	Borosilicate Glass Petri Dish 90mm	No's	10				
15	Silica Crucible (50ml)	Heat Resistant, Strong build quality {10 piece of each). can be used in muffle furnace at high temperature up to 1000 degree celcius	No's	10				
16	Silica Crucible (100 ml)	Heat Resistant, Strong build quality {10 piece of each). can be used in muffle furnace at high temperature up to 1000 degree celcius	No's	10				
17	BOD Bottle	300ml bottle , made of borosil	No's	30				

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18	Digital COD Digester (for 10 ml COD vials)	Digestion capacity 10-16 vials Vial volume Maximum 10ml Vial dimension 16 x 100 mm Digestion temperature 20°C- 200° C	No's	1				
19	Chloroscope	Square unbreakable test tube - 2 Nos, glass dropper with rubber test-1No, O-Toluidine reagent-125ml, packed in thermocol box, to check chlorine in drinking water from 0.25ppm to 2ppm	No's	6				
20	Porcelain dish	80mm dia, 40 ml	No's	6				
21	Measuring cylinder	250 ml made of Borosil	No's	6				
22	Beaker	250 ml made of Borosil	No's	6				
23	Filter Paper	42 & 45 no.	No's	12				
24	Funnel	made of Borosil	No's	6				

**Geo Tech. Engg**

1	I.S. Sieves 20 cm diameter brass Aperture size 4.75 mm, 2.36mm, 1.18mm, 600micron, 300 micron, 150 micron and 75 micron as per IS 460	Sieves 20 cm diameter brass Aperture size 4.75 mm, 2.36 mm, 1.18mm, 600 micron, 300 micron, 150 micron and 75 micron as per IS 460	Set	2				
2	Pycnometer	As per IS:2386 ( Part 3 ) Consist of a 1 kg Glass Jar with Brass Cone	No's	6				
3	Liquid Limit Device	Casagrande grooving tools and gauge block with AC Supply Compliance with IS:2720 (Part 5), IS:9259 Consists of a hard rubber base Casagrande Grooving Tool Gauge Block	No's	6				
4	Plastic Limit Set	Glass plate, Flexible Spatula, Brass / SS rod, Moisture Dish & Porcelain Dish.	No's	6				
5	Core Cutter	As per IS:2720 (Part 29), Min. 100 mm dia x 130 mm long, Steel Dolly 25 mm high and 100 mm dia, Rammer with Steel Rod.	No's	4				
6	Density bottle	100 ml, made of borosilicate	No's	5				
7	Density bottle	50 ml, made of borosilicate	No's	5				
8	Proctor Test Apparatus for heavy compaction	Proctor Test Apparatus for heavy compaction, Material - Mild Steel as per the IS:2720 (Part 8), Rammer and Base Plate, made of Mild steel 150 mm dia, 127.3 mm height 2,250 ml volume. Rammer:- 4.9 kg	No's	1				
9	Direct shear apparatus . motorised with 12 speed . As per IS : 2720 ( part XIII )	Ref. Standards IS :11229, 2720 (Part 13) Type of Shear : Direct / Residual Measurement Operation : Motorised Rates of Strain (mm/min) : 1.25, 0.625, 0.25, 0.125, 0.05, 0.025, 0.01, 0.005, 0.002, 0.001, 0.0004, 0.0002 Specimen Size : 60 x 60 x 25 mm Digital Indicator, Load Cell 2KN, Displacement Sensor Range : 0-20mm. Shear Box Assembly, This assembly comprises of : Halves of the Shear Box 2 Nos.	No's	1				

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		Plane Gripper Plate - 2 Perforated Gripper Plate - 2 Porous Stone - 2 Top Loading Pad - 1 Base Plate - 1 Specimen Cutter - 1 Min normal stress - 3 kg/cm <sup>2</sup> Operation : Motorised					
10	Laboratory Vane Shear Apparatus	As per the IS:2720 (Part 30) with special motor, Rotation 0.10/sec. Rate of rotation : 1/60 rpm Suitable for operation on 220 V, 50 Hz, Single Phase, AC supply. Container 1 No. Set of 4 Springs, (one each of capacity 2 kg-cm, 4 kg-cm, 6 kg-cm and 8 kg-cm min)	No's	1			
11	Sieve Shaker	Sieve Shaker, Motorized, with Built-in Digital Timer, • A digital timer adjustable from 0-99 minutes is incorporated as an integral part of the equipment. • The Sieve Shaker can carry up to 8 sieves of 20cm diameter, also supplied with 30cm adaptor. It is driven by a ¼ HP geared motor. • The Sieve Table is inclined from the vertical axis and the direction of inclination changes progressively in the clockwise direction. In addition to the gyratory motion of the table, there is a tapping motion as well. Suitable for operation on 220 V, 50 Hz, Single Phase, AC supply.	No's	1			
12	Electronic Balance	Upto 500g, and 5 kg	No's	1			
13	Glass measuring cylinder	1000 ml	No's	5			
14	Stop Watch	Accuracy : 0.01 Seconds	No's	2			
15	Hydrometer Apparatus	Hydrometer, Range: 0-20, 20-40, 40-60, 60-80, & 80-100	No's	5			
16	Metre scale	300 mm length, steel made	No's	2			
17	Shrinkage Limit Set	As per IS : 2720 (Part 6), Porcelain Evaporating Dish, Shrinkage Bath, Glass Cup, Min. Three Metal Prongs, Perspex Plain Plate Spatula, Glass Cylinder, 25 ml x 0.5 ml, Mercury.	No's	2			
18	Sample Extractor	application - soil Extractor, Capacity - 5 Ton, Automation Grade Manual	No's	1			
19	Sand bath	Device with tray, stove, palet, knife, steel top with powder coated, 230V, single phase	No's	1			
20	Non Corrodible air tight container or can	100 ml, 200 ml, 500 ml, 1000 ml Set of 6 for each	No's	24			
21	Thermometer	0.5°C - 60°C	No's	2			
22	Water bath	15 Litre capacity, temperature controlled, LED water bath	No's	1			
MOM Lab.							
1	Beam deflection Apparatus structural lab	A mild steel beam 2.5 cm x 3 mm in cross section and 100 cm long is pinned to two supports 70 cm apart situated symmetrically. One of the ends can be fixed or given a known slope by applying a known moment at the end with the help of suspended loads. At the other end also a known moment can be applied at various points along the span of the beam.	No's	1			
2	Abrasion Testing Machine for Glezed Tile	voltage 230, Power 100 Watt, 50 Hz, single Phase AC Supply	No's	1			

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3	Flexure Strength Testing Machine	<p>Flexure Testing Machine Electrically Operated, Material of Construction:</p> <p>Weight of the Load Frame: Min. 130kg</p> <p>Hydraulic System: With Min. 15 liters, hydraulic oil feed and fuel pump separately, 0.5 hp, 1 Ph, 220V AC motor driven two-speed hydraulic pump. Standard confirm to:- Conforms to IS 516 and IS : 14858, Machines conforming to ASTM C39.</p>	No's	1					
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