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No.GCOEARA/Store/2017-18/ 469 Date : 31 JAN 2018

Tender Fee Re.-1000/- (By DD only)

QUOTATION

Sub: Quotation for purchase of equipment.(for Civil Engineering)
(Due Date 08.02.2018)

Sealed Quotations are from eligible and interested manufacturers/ dealers/distributors/ for the following items on the terms and conditions mentioned below.

Sr. No.	Name of the item with specification	Quantity required	Estimated cost
1	**Direct Shear Test Apparatus:** Test rig should able to perform tests as per IS: 2720 part XIII. It should be a motor operated horizontal loading system for shearing the specimen. It should comprise: i) Shear Box assembly made up of corrosion resistant material, 60 mm square, complete with U-bracket, guide pins and spacing screws; ii) Gripper assembly consisting of two plain grid plates, two perforated grid plates, one base plate and one loading pad; iii) Two porous stones, each 6 mm thick, fitting the shear box; iv) Shear box housing complete with two ball roller strips; v) Loading unit with normal loading of 8 kg/cm2 on 60 mm2 specimen; vi) Specimen cutter for a specimen size of 60 X 60 X 25 mm; vii) The unit must be provided with a turret type gear box to get 12 different constant rates of strain: 1.25, 0.625, 0.25, 0.125, 0.05, 0.025, 0.01, 0.005, 0.002, 0.001, 0.0004, and 0.0002mm/min and arrangements to carry out residual shear strength tests; viii) Test rig should be operational with 220V, 50 Hz, single-phase supply; ix) Set of weights: 4 of 0.05 kg/cm2, 1 of 0.1 kg/cm2, 1 of 0.2 kg/cm2, 3 of 0.5 kg/cm2 and 1 of 1 kg/cm2; x) Tension-compression proving ring of capacity 2 kN for carrying out residual shear strength test; xi) A dial gauge 0.01 × 25 mm	1	100000
2	**Vibration Table:** Vibration Table meant for compacting cement concrete should confirm to IS: 2514. Size of vibrating table top should be 1 m X 1 m for 16 concrete cube moulds of 150 mm size. The table top shall be constructed from steel plate of not less than 10 mm thickness or equivalent material and shall be suitably braced and stiffened to vibrate evenly so that there is no significant variation in the vibration characteristics of the table top. The frequency of vibration for the table operating at its maximum load capacity shall be between 3 000 to 6 000 cycles per minute. The vibration acceleration of the table operating at its maximum load capacity shall not be less than four times the acceleration due to gravity. The table top should be equipped with assembly to hold cube moulds in order to prevent moulds from sliding off the table during operation.	1	100000
3	**Vibration Machine:** Vibration Machine meant for vibrating the cement mortar should confirm to IS: 10080, IS: 4031 (Part VI) and able to produce mix in moulds at a frequency of 12,000 ± 400 cycles per minute. The vibrator should be mounted over coiled springs and the vibrations are developed by means of a revolving eccentric shaft. The centre of gravity of the vibrator, including the cube and mould, should be either	1	75000

	at the centre of the eccentric shaft or within 25 mm below it. The machine should facilitate easy assembly and dismantling of the cube moulds.		
4	**Tile (Roofing and Flooring) Flexural Testing Machine:** Test rig should be as per IS: - 1237-1980 The equipment consist of two bearing rollers and a third self aligning loading roller, all 25 mm., in diameter. The center to center distance between bearing rollers can be set at 150, 200 or 250 mm., The loading is through double lever loading system by means of a steady flow of lead shot from a lead shot container to a receiver hung on the lever system. The rate of flow of lead shot is adjustable as per required rate of loading., The flow of lead shot stops automatically on failure of test specimen and the breaking load can be calculated by multiplying the weight of lead shot in the receiver by the lever ratio i.e. 12., Maximum capacity of the machine is 2 kN., Lever ratio is 1 : 12., Supplied complete with 20 kg lead shot.	1	90000
5	**Impact of Jet on Vanes**: General Requirements: The apparatus should consist of a cylindrical acrylic vessel. Water is fed through a nozzle and discharged vertically to strike a target carried on a stem which extends through the cover. Force of the jet is measured by the simple calculating moments about fixed fulcrum. Technical Specifications:- Set of Nozzle: 4 mm and 8 mm (Brass), Set of Vanes: Hemispherical, flat and inclined plates, Jet collection tank : 250 mm Diameter Material of Construction for jet collection tank: Perspex, Sump tank capacity : 75 liter with Matt Buffing, Measuring tank (with piezometer) capacity : 35 liter Material of Construction for sump and measuring tank: Stainless Steel-304 with Matt Buffing, Pump : Monoblock type, 0-60 liter/min, Motor 0.5 HP, Piping with necessary Valves and Fittings, Digital Stop Watch with 1/10 second accuracy.	1	80000
6	**Centrifugal Pump Test Rig (Single Stage) (Close Circuit):** General Requirements and Technical Specifications: The centrifugal pump should be self priming pump with Stainless Steel body coupled to a 3 Phase 1 HP electrical motor; Test rig should be fabricated out of 16 gauge 25x25 mm CRCS powder coated pipes; Piping and fittings: Fusion PPR piping with SS threading wherever necessary Max. Flow rate: 40 LPM (approx); Max. Head: 4 kg/cm2 (approx); Motor: 1 HP 440 V AC operated; Inlet 25 mm x Outlet 25 mm; Motor and Pump are coupled through variable speed pulley drive which enables speed variation while the pump is running Speed variation: 1:3; Power measurement transmitter with seven segment LED display to measure power consumed by electric motor; Flow rate measurement: volumetric type with digital display; Pressure measurement: Using glycerin filled pressure gauge at suction and discharge end of the pump; Pump speed measurement: Non contact type sensor with panel mounted RPM indicator; Sump Tank: Made up of Acrylic/Plastic, Capacity 75 lit; Measuring Tank: Made up of Acrylic/Plastic, Capacity 50 lit. Control panel to house RPM indicator, pressure gauges and digital flow rate indicator.	1	75000
7	Flash Point Test Apparatus **Flash Point Test Apparatus:** This test apparatus should be suitable for test operation as per IS: 1209. Apparatus should consits of electrical heating system with gas test jet and electric heater, brass test cup with handle, removable cup cover with spring operated rotating shutter, stiner device, flame exposure device, energy regulator. Apparatus should be compatible to 220-230 Volt, 50 Hz, Single Phase, AC Supply. This test apparatus should be supplied with voltage variable temperature controller with digital temperature indicator as well as with a thermometers for temperature range IP 60 C and IP 61 C	1	25000
8	**Standard Tar Viscometer:** This test apparatus should be suitable for test operation as per IS: 1206 (Part II). This viscometer should consist of a chrome plated copper bath, with a drain valve and a central tube	1	25000

	to receive the test cup and to position the stirrer. It should be mounted on a stand with leveling feet. Stirrer should have a curved shield and need to be provided with an insulated handle, thermometer socket and swivel support for the valve. This test apparatus should be supplied with electrical heating system equipped with immersion heating elements and dimmerstat for controlling the temperature; 10 mm cup and valve. Apparatus should be compatible to 220-230 Volt, 50 Hz, Single Phase, AC Supply.		
9	**Softening Point Test Apparatus:** This test apparatus should be suitable for test operation as per IS: 1205. The apparatus should consist of heat resistant glass beaker internal dia 8.5 cm X 12 cm depth (approx.); two steel balls each of 9.5mm dia; two tapered brass moulds; two ball guides, ring stand. It should be supplied with a heating unit designed to give temp. rise at 5 Degree Celcius per minute through an energy regulator; an electrically operated stirrer mounted on a stand with chuck and glass rod for stirring the water in the water bath; digital temperature indicator as well as a set of thermometers for temperature range IP 60 C and IP 61 C Apparatus should be compatible to 220-230 Volt, 50 Hz, Single Phase, AC Supply	1	25000
10	**Standard Pentrometer/ Bitumen Penetration Kit:** This test apparatus should be suitable for test operation as per IS: 1203. Standard pentrometer (manually operated) should consist of a vertical pillar mounted on a base provided with leveling screws. The head should be fitted with a two speed elevating mechanism for quick and precise positioning of the penetration tip. Penetration should be displayed on a 150mm dial, graduated 400 × 0.1mm increments, equipped with a slipping clutch pointer. Penetration Range: 0 to 400 Pen (40 mm). This apparatus should be supplied with 47.5g standard plunger, 50g and 100g plunger weights.	1	25000
11	**Imhoff Setting Cone with stand :** Capacity 1000 ml; Outer diameter= 108 mm X Length = 451 mm; Material of cone: colourless natural glass; Graduation Intervals: 0 to 1mL in 0.1mL; 1 to 10mL in 0.5mL; 10 to 40mL in 1mL; 40 to 100mL in 2mL at 250, 500 and 1000mL, cone should be featured with plug to facilitate cleaning. Suitable stand/rack for Imhoff cone must be provided	2	40000
12	**Digital Dissolved Oxygen (DO) Meter** Range D.O. 0 to 20.0 mg, Resolution D.O. 0.1 mg Accuracy D.O. 0.1 mg + 1 count, Temp. Compensation 0o C to 50o C Manual, Compensation D.O. + 3%, D.O. Sensor type D.O. Amperometric Gold/Silver membrane, Display 3 1/2 digit LED display,Power 230V A.C. 50 Hz, DO Electrode 1 Nos.,Instruction Manual 1Nos.,D O Membranes 10 nos	2	40000
13	**Noise Level Meter**: It should have digital display featuring: a wide range of 35 to 130dB; Accuracy: +/-1.5dB; Frequency range: 31.5HZ to 8.5KHZ; Sampling time: 2 times /sec; Power supply: 9V batteries	1	20000
14	**Blaine's permeability apparatus:** This apparatus should be able to perform finess test on Cement as per IS-4031(PART-II). This variable flow type air-permeability test apparatus should confirm to IS 5516. It should consists of permeability cell with perforated metal disc, Manometer 'U' type mounted on stand with a built in stop cock, Plunger Rubber stopper, Rubber tube 30cm long. Packet of 12 filter paper discs and a bottle of 100cm3 dibutyiphthalate liquid. Acessories like punch to cut filter paper discs,non-perforated disc and suction bulb should be supplied with this equipment.	1	20000

TERMS AND CONDITIONS

- The bid/quotation should be submitted in two bid format.

- The first envelope will contain Technical specifications of the product, technical literature/ leaflet and other documents mentioned below.
    1. Covering Letter for tender on the company letter head mentioning official address, Contact No, e Mail address and website (if available) address
    2. Tender fee and EMD (3% of the quoted cost or Re. 5000 whichever is minimum) OR Exemption certificate from competent authorities, if exemption is claimed.
    3. GST registration certificate/ Number
    4. GST Clearance Certificate/ GST Challan for last quarter of the Financial year.
    5. Authorization/ Distributorship certificate from manufacturer. Proof of permission to manufacture the equipment/ item mentioned in the quotation from competent authorities (to be submitted if the bidder is not a manufacturer).
    6. Technical literature / leaflet of the make and model no of equipment quoted .

Additional document may also be asked by undersigned for confirming the details.

- The second envelope will contain the financial bid in which the all inclusive rates F.O.R. Destination will be written and signed with the stamp of the establishment in the following format.

Sr. No.	Name of the item with specification	Quantity required	All inclusive cost per unit	All inclusive cost for quantity mentioned.
1.				

Date -
Place -

(Signature)
Rubber Stamp of organisation

- The two envelopes should be sealed with a mention of the type of envelope (technical/ Financial), Reference no., Date of opening the quotation on the front side of the envelope. These two envelopes should be sealed in a third envelope by giving heading "Quotation for supply of _____" and writing complete address of the undersigned.
- The quotations should reach the undersigned on or before **dt.08.02.2018-**
- The material will be checked at this institute.
- No extra charges will be paid for cartage, packing etc. for the material rejected and replaced
- Quotations will be opened at 11 AM on dt.**09.02.2018**
- Rates should be valid for 6 months from the date of confirmation letter.
- Materials should be quoted for standard makes and minimum pkgs.
- Delivery to the consignee has to be effected within 4weeks from the date of issue of purchase order.
- The undersigned reserves the right to accept or reject any offer or all offers without assigning any reason thereof.

31/1/18

(Dr. A.S. Pant)
Principal
Govt. College of Engineering & Research,
Awasari khurd