



TENDER DOCUMENTS

Civil Engg Lab Consumable Items

NUTECH / SCM / Civil Lab Cons Items (PSDP) 2020 / TD-

129

NATIONAL UNIVERSITY OF TECHNOLOGY

National University of Technology (NUTECH)
NUTECH / SCM / Mech Lab Cons Items (PSDP) 2020 / TD-126,
NUTECH / SCM / EE Lab Cons Items (PSDP) 2020 / TD-127,
NUTECH / SCM / Comp Lab Cons Items (PSDP) 2020 / TD-128 &
NUTECH / SCM / Civil Lab Cons Items (PSDP) 2020 / TD-129

1. Separate sealed bids are invited for tenders from Government / FBR Registered firms for the procurement against above mentioned tenders on FOR Basis.
2. Tender documents containing terms, conditions and detailed compliance of items (including draft contract) can be downloaded from NUTECH website "<https://nutech.edu.pk/downloads/procurement/scm-tenders/>" w.e.f **14 April 2020**.
3. Quotations shall be submitted as per requirement of the tender documents.
4. Bidders will be required to submit Bank Draft/ CDR equal to 5% of quoted value as Bid Bond in favor of National University of Technology (NUTECH).
5. Submit Rs 1500/- as Tender fee in favor of NUTECH HBL Account (**NUTECH Tendering and Contracts, 5037-7000210755**). Please attach bank receipt with technical offer. Offers will not be entertained without payment of processing fee.
6. Details for submission & opening of bids for each tender are as under:-

Ser	Description	Submission	Tender Opening	Completion Days
a.	Mech Lab TD-126	1000 hrs on 29 April 20	1030 hrs on 29 April 20	30 Days
b.	EE Lab TD-127	1100 hrs on 29 April 20	1130 hrs on 29 April 20	90 Days
c.	Comp Lab TD-128	1200 hrs on 29 April 20	1230 hrs on 29 April 20	30 Days
d.	Civil Lab TD-129	1200 hrs on 30 April 20	1230 hrs on 30 April 20	15 Days

Deputy Director (Supply Chain Management)

NATIONAL UNIVERSITY OF TECHNOLOGY, UPROAD, I-12 ISLAMABAD

Tel: 0092-51-5476768, Ext: 227

NATIONAL UNIVERSITY OF TECHNOLOGY
SUPPLY CHAIN MANAGEMENT
INVITATION TO TENDER

Tender submission time: 1200 hours, 30 April 2020

1. NUTECH desires to procure the list of item(s) / Store(s) on **FOR basis**. as per **Annexure-A**. Interested bidders are requested to send their bids through courier or deliver at NUTECH under "Single Stage – Two Envelopes" (two envelopes placed together in third envelope), marked clearly as **"Technical Offer"** and **"Commercial Offer"** respectively to the undersigned, latest by or before above mentioned due date.

2. **Conditions Governing Contracts.** The contract made as result of this IT will be in accordance with the **draft contract published on NUTECH University website** and other special conditions (Mentioned in this document) that may be added to given contract for the supply of Lab Equipment.

3. **Delivery of Tender.** The offer is to be submitted as under:-

- a. **Technical Offer.** Technical Offer should contain only Annexure-A, Annexure-A-1 & Annexure B duly filled in (supported with relevant technical literature / details / catalogues etc) and receipt of tender processing fee. Copy of bid bond WITHOUT MENTIONING PRICE should be attached with technical offer. Only relevant technical details ie literature/brochures) without mentioning the financial aspect of the offer in DUPLICATE should be enclosed in an envelope. In technical proposal, all items must have the brand names, model number, ~~manufacturer's name, country of origin,~~ manufacturer's warranty including parts with complete specs and brochures. Re-conditioned and re-furbished equipment shall not be acceptable. Following information will be clearly marked on the envelope:

- (1) Technical Offer
- (2) Original Performa Invoice (without price)
- (3) Tender number

(4) Date/ time of opening

- b. **Commercial Offer.** Commercial Offer will contain Annexure-C and bid bond (Dully mentioned and placed in separate envelope. The offer indicating the quoted price FE/Local Currency (in Local Currency for FOR cases & in FE for FOB cases) in figures as well as in words would be enclosed in an envelope. Following information will be clearly marked on the envelope;
- (1) Commercial Offer
 - (2) ~~Original Performa invoice with price~~
 - (3) Tender number
- c. Both the envelopes i.e. commercial offer and technical offer would be enclosed in yet another properly sealed envelope that will be marked with address of this office only. There should be clear indication that this envelope contains tender documents.
- d. The tender duly sealed will be addressed to the following:-

Deputy Director (Supply Chain Management Office)
NATIONAL UNIVERSITY OF TECHNOLOGY (NUTECH)
I J P ROAD, I-12, ISLAMABAD
Tel: 0092-51-5476768, Ext: 227

4. **Date and Time for Receipt of Tender.** Sealed bids with detailed specifications should reach SCM office latest by **1200 hours on 30 April 2020**. Delay occurring in post shall not be accepted. Tenders received after the appointed / fixed time will NOT be entertained. The appointed time will, however, fall on next working day in case of closed / forced holiday.

5. **Tender opening.** The offers shall be opened 30 minutes after submission time. Commercial offers will be opened at later stage if Technical Offer is found acceptable on examination by technical authorities. Date and time for opening of

commercial offer shall intimated later. Only legitimate / registered representatives of firm will be allowed to attend tender opening.

6. **Validity of Offer.** The validity period of quotations must be indicated and should be 90 days from the date of opening of financial offer.

7. **Documents.** Following information / copy of documents must be provided / attached with offer:-

- a. A copy of letter showing firm's financial capability.
- b. NTN/GST number be mentioned on the offer and copy of registration Certificate issued by Sales Tax Department, attached.
- c. ~~Foreign supplier to provide its Registration Number issued by respective Department of Commerce authorizing export of subject stores (in FOB cases).~~
- d. Annexes A, A-1, B and C and special conditions must be signed and stamped.- (ATTACH ONLY RELEVANT DOCUMENTS)-
- e. Complete all Annexes as per given format. Do not use your format or letter head. Offer may be rejected if given format is not followed.
- f. ~~OEM/principal agency agreement must be provided.~~

8. **Disqualification.** Offers are liable to be rejected if:-

- a. Validity of offer is not quoted as required in IT documents.
- b. Any deviation from the General/ Special / Technical Instructions.
- c. Offers are found conditional or incomplete in any respect.
- d. Copy of EM/Bid Bond & Tender processing fee (with tech offer) and original EM/Bid Bond (with fin offer) are NOT attached.
- e. Multiple rates/items are quoted against one item.
- f. Manufacturer's relevant brochures and technical details on major equipment assemblies are not attached in support of specifications.
- g. Offer received later than appointed / fixed date and time.
- h. ~~Subject to restriction of export license.~~

- i. Offers (Commercial / technical) containing non-initialled / unauthenticated amendments / corrections / overwriting. If the validity of the agency agreement has expired. ~~The commercial offer against FOB / CIF / C&F tender quoted in local currency.~~
- j. If the offer is found to be based on cartel action in connivance with other sources/participants of the tender.

9. **Earnest Money / Bid Bond.** Commercial Offer must be accompanied with a Bid Bond (CDR/Pay Order/Bank Draft) in agreement of faithful compliance of the conditions of Contract. This amount will be equivalent to 5% of the total quoted value. The Bid Bond amount submitted by the successful bidder will however be refunded on effective termination of Contract. (The Bid Bond will be forfeited in case of default by the bidder from his commitments made through his offer). Submission of Bid Bond is mandatory; otherwise your offer will be rejected. Bid Bond will be used as performance guarantee till the delivery of stores, otherwise separate performance guarantee valued at 5 % of contract will be submitted by successful firm till stores are delivered and inspected.

10. **Return of Earnest Money/Bid Bond.**

- a. Bid Bond to the unsuccessful bidders will be returned on finalization of the lowest evaluated bidder.
- b. Bid Bond of the successful bidder/bidders will be returned on submission of Bank Guarantee/Bid bond against warranty period OR Bid bond retained for the warranty period as the case may be.

11. **Terms of Payment/ LC Charges**

- a. ~~In FOB cases (all categories) payment will be made through letter of credit (LC). LC opening charges in Pakistan are to be borne by NUTECH. Payment will be made through irrevocable LC in favour of Manufacturer.~~
- b. **In FOR cases** 20% advance payment will be made to the Seller on provision of unconditional Bank Guarantee/ CDR/ DD/ Pay order. 80% payment will made to the Seller after receipt and confirming the correctness of ordered specifications, installation, commissioning OR as the case may be i.e through Inland LC.

12. **Bank Guarantee (BG)**. In case where equipment is backed by warranty, the BG submitted equal to 05% of FOB/FOR/CPT etc value shall remain valid for up to 60 days beyond completion of warranty period.

13. **Taxes/ Duties/ Custom clearance** All taxes /duties /import Licenses Fee as applicable under government laws in Pakistan as well as country of supplier shall be on firm **(in FOR Case)**. NUTECH will provide applicable exemption certificates and documents **(In FOB Cases only)**.

14. **Insurance:-** Insurance will be NUTECH's responsibility through NACL **(in FOB Cases)**.

15. **Freight charges /Misc charges:** All charges such as packing, forwarding, local freight, loading and unloading, installation and commissioning, custom clearance, orientations, on job training or any other will be part of quoted price. Delivery till NUTECH will be firm's responsibility and all associated costs will be part of quotation as well.

16. **Warranty**. All goods /store offered would be brand new, from current year of production and will be governed as per warranty clause. The warranty period may be covered by BG as depending on the value /criticality of the tender equipment. Warranty of all mentioned items should be 6 months. Items at serial No 19,20 & 34 are exempted from warranty.

17. **Delivery Schedule.** Store will be delivered within 15 days from contract signing date.

18. **Force Majeure.** If non-compliance with the period of delivery or services can be proved to be due to Force Majeure, such as but not limited to mobilization, war, riot, strike, lockout or the occurrence of unforeseen events, the period shall be reasonably extended.

19. **Subletting** Suppliers are not allowed to sublet wholly or part of the contract to any other firm /company without prior permission by NUTECH. Firm found in breach of the clause will be dealt with as per purchaser's right and discretion.

20. **Arbitration.** The dispute shall referred for adjudication to a board comprising of Pro-Rector NUTECH as Chairman and two arbitrators, one to be nominated by each party. The arbitration proceeding shall be held in Pakistan under Pakistan Law. The venue of arbitration shall be the place from which the contract is issued or such other place as the purchaser at his discretion may determine. Arbitration award so given will be firm and final.

21. **Redress Of Grievance.** In case of dispute, case shall be reviewed by 'NUTECH Redress of grievance committee and decision of NUTECH shall be final and binding on both parties.
22. **Export License/Permit /End User Cert.** It shall be the responsibility of the Supplier to obtain from the Government concerned all permits and export licenses, etc required to enable each consignment to be shipped immediately as per the delivery schedule. In case the supplier fails to arrange export license within 30 days of signing the contract the purchaser reserves the right to cancel the contract on the risk and expense of the supplier without prior notice. The purchaser will provide End User Certificate for acquisition of export license to the supplier (format to be provided by the supplier for respective country within 10 day of signing of the contract).
23. **Technical Specification:** The supplier will provide OEM certificate, quality certificate /inspection document to the purchaser confirming the quality of the product being supplied under this contract .Store must bear the manufacturer's identification marking /monogram.
24. **Inspection /Testing of Store:** Inspection testing will be carried out at NUTECH by the concerned inspection team as detailed by the respective department in accordance with the laid down Acceptance Criteria. ~~(Acceptance Test Procedure (ATPs))/Drawing /Test standard and specification).~~ **The supplier will provide ATPs with technical offer.** Mutually agreed/approved ATPs will form part of contract to govern the inspection of store subsequently.
25. **Requirement of Samples.** ~~The requirement of tender sample will be included in the case if required for evaluation by technical authorities'. Beside this advance sample if required will be also made part of the IT as well as the contract.~~
26. **Change In Specification / Mfr / Model.** No alternation marked/brand and quality of store will be entertained after the tender have been opened.
27. **Checking of Store at Consignee End.** All stores will be checked at Consignee's end in the presence of the supplier's representative. If for some reason, the supplier decides not to nominate his representative for such checking, an advance written notice to this effect will be given by the supplier to the consignee prior to immediately on shipment of store. In such an event the supplier will clearly undertake that decision of consignee with regard to quantities and description of

consignment will be taken as final and discrepancy found will be accordingly made up by supplier. In all other cases the consignee will inform the supplier about arrival of consignment immediately on receipt of store through registered email/letter and telephone. If no response from the supplier is received within 15 days from initiation letter the consignee will have the right to proceed with the checking without supplier's representative. Consignee's report on checking of the stores will be binding on the supplier in such cases.

28. **Packing /Marking.** The supplier shall be responsible for proper packing of the Store in standard export packing worthy of transportation by sea /air /road rail so as to ensure their content being free from loss or damages due to faulty packing on arrival at the ultimate destination. Packing of stores will be done at the expenses of the supplier. All packing cases, containers and other packing material shall become the property of the NUTECH on receipt. Any loss occurred /demurrage paid due to wrong marking will be made good by the supplier

29. **Original Performa Invoice:** Original Performa invoice must have following components incorporated:-

- a. HS Code
- b. Incoterm
- c. ~~Payment Terms~~
- d. Origin of good
- e. Port of shipment
- f. Address of OEM
- g. Seller acceptance (in Performa Invoice)
- h. Invoice Date
- i. Latest date of shipment
- j. Seller complete bank detail

Note: Performa Invoice in the name of NUTECH in case of FOB cases & in the name of local partner in case of FOR cases.

30. **General Instructions:** Following must be noted:-

- a. The firm should provide point to point acceptance of each clause of IT and special instructions attached with IT.
- b. Firm will render a certificate with technical offer that firm is neither

defaulter nor blacklisted by any Government / semi Government organization directly or indirectly.

- c. Rates should be quoted on Free Delivery basis at NUTECH Islamabad.
- d. The stipulated delivery period should be strictly adhered to. Any anticipated delay that is beyond the control of Seller will be informed (in writing) well in advance of the expiry of the due date of the activity along with reasons thereof, requesting for the grant of extension in delivery period. If the Seller fails to do so, or the Buyer is not convinced with the rationale provided by the Seller, Liquidated Damages up to/at 2% per month or part thereof, will be imposed. However, the maximum limit of the Liquidated Damages will not exceed 10% of the delayed store value.
- e. If even after applicability of 10% LD, the Seller fails to deliver the required stores, the Buyer will be at liberty to Cancel the contract, and /or procure the stores from an alternate source, on the Seller's "Risk & Cost/Expense". In that case, the Seller will be bound to make payment to the new source through NUTECH. The purchaser's decision under this clause shall NOT be subjected to arbitration.
- f. NUTECH reserves the right to cancel the Contract without assigning any reason whatsoever during its currency / execution / after placement, if the firm is found to be involved in any dubious activity, litigation, lacking to meet contractual obligations with the purchaser or is blacklisted with any other Public procurement agency. No claims / loss /damage of whatsoever nature shall be entertained and NUTECH's decision in this regard will be final / binding on the Seller.
- g. An appropriate amount may be paid for mobilization against Bank Guarantee/CDR/Demand Draft/Pay Order.
- h. Firms with previous pending/outstanding projects/business with NUTECH may not be considered for award of this tender.

Deputy Director
Supply Chain Management Office

Annex-A**Technical Specifications****NUTECH / SCM / Civil Lab Cons Items (PSDP) 2020 / TD-129**

Ser	Items	Description	Country of Origin	A/U	Qty Req	Bidder Compliance		Tech Scrutiny to be done by user	
						Yes	No	Accepted	Rejected
								Reason of Rejection	
1.	Rubber Pads 6 Inches Dia	<ul style="list-style-type: none"> • Pads must ensure load uniformity. • Pads should be reused up to 100 tests. • Quantity of 12 pads of 1,500—6,000 psi strength and • Quantity of 12 pads of 4,000—9,000 psi strength • 6in pads meet the latest ASTM C1231 and AASHTO T 22 specifications. • 50 Durometer Pads meet tensile strength • Thickness of ¾ inches • Durometer requirements of AASHTO T 22 and should be appropriate for compressive strengths from 1,500—6,000psi (10—40mPa) <ul style="list-style-type: none"> ○ For range of 1,500—6,000 psi, Quantity should be 12 • 70 Durometer Pads used for strengths from 4,000—7,000psi (28—50mPa) <ul style="list-style-type: none"> ○ For range of 4,000—7,000psi, Quantity should be 12 • Dia should be 6 inch 	Imported	No	12				
2.	Rubber Pads 4 Inches Dia	<ul style="list-style-type: none"> • Pads must ensure load uniformity. • Pads should be reused up to 100 tests. 	Imported	No	12				

		<ul style="list-style-type: none"> • Thickness of ¾ inches • Quantity of 6 pads of 1,500—6,000 psi strength and • Quantity of 6 pads of 4,000—9,000 psi strength • 4in pads meet the latest ASTM C1231 and AASHTO T 22 specifications. • 50 Durometer Pads meet tensile strength and durometer requirements of AASHTO T 22 • Should be appropriate for compressive strengths from 1,500—6,000psi (10—40mPa) <ul style="list-style-type: none"> ○ For range of 1,500—6,000 psi, Quantity should be 12 • 70 Durometer Pads are used for strengths from 4,000—7,000psi (28—50mPa) <ul style="list-style-type: none"> ○ For range of 4,000—7,000psi, Quantity should be 12 • 4 inch Diameter 						
3.	<p>Cylinder steel Retainer set</p> <p>Grp "A" (4 inches Dia)</p> <p>Grp "B" (6 in Dia)</p>	<ul style="list-style-type: none"> • Group "A" <ul style="list-style-type: none"> ○ <u>4in Steel Retainer Set</u> ○ Must meet compression test criteria of 4in (102mm) diameter Concrete Cylinders. • Group "B" • <u>6in Steel Retainer Set</u> • Capping for compressive strength testing of 6in (152mm) diameter Concrete Cylinders. • Must meet compression test criteria for un-bonded capping of 6in (152mm) diameter Concrete Cylinders. <p><u>General specifications</u></p>	Imported	No	Total 4 sets (2 sets of 4" Dia and 2 sets of 6" Dia)			

		<ul style="list-style-type: none"> Steel Retainers should be constructed of alloy steel, Precisely machined to specified dimensions Material: Rugged alloy steel construction Corrosion-resistant plating inside and out Plane bearing surfaces (0.002 inch) Meet ASTM and AASHTO requirements Included Items: <ul style="list-style-type: none"> 6in Steel Retainers, set of 2 4in Steel Retainers, set of 2 Accessories Each set contain upper cylinder plate and lower cylinder plate. Meets Standard(s): <ul style="list-style-type: none"> AASHTO T 22 ASTM C1231/1231M 						
4.	Three Gang Cube Test Mold (2" x 2" x 2")	<ul style="list-style-type: none"> Must be of stainless steel Every mold contain three spots for every (2" x 2" x 2") cube. The Cube Mold, 2"x2", Stainless Steel, must be accurately machined for casting 2in (51mm) cubes in diagonal position. Wing nuts must secure the mold halves to the detachable base plate. Wing nut should clamps lock the mold to the base. Stainless thumb screws should be provided to secure halves tightly together. Large upper surface strike off area. Meets Test Methods of ; <ul style="list-style-type: none"> AASHTO T106 ASTM C 109 ASTM C 141 ASTM C 472 	Imported	No	4 (Each mold contain 3 cubes)			

		<ul style="list-style-type: none"> ○ ASTM C 579 ○ ASTM C 87 						
5.	Rubber Tamper	<ul style="list-style-type: none"> • Rubber Tamper for Cube Molds • Dimensions of <ul style="list-style-type: none"> ○ 6-in long, ○ 1-in wide ○ and 1/2-in thick • made of hard rubber • Meets Test Methods: <ul style="list-style-type: none"> ○ AASHTO T106 ○ ASTM C 109 ○ ASTM C 141 ○ ASTM C 311 	Any	No	6			
6.	12-Inch Heavy Duty <u>Flat Chisel</u> With Hand Protection,	<ul style="list-style-type: none"> • 12-Inch Heavy Duty Flat Chisel With Hand Protection, • Flat Chisel • Flat Head, • Demolishing/Masonry/Carving/Concrete Breaker Chisels • High hardness and anti-rust chrome-vanadium (CVS) steel • Shock-absorbing soft cover handle • Plate shape hand protection • Pattern: Flat Head 	Any	No	4			
7.	Water reducer	<ul style="list-style-type: none"> • Sika® Plastiment ® PR-450 • Expiry date should be at least Dec-2020. • Water reducer or super plasticizer. • High Performance Plasticising and Slump Retaining Concrete Admixture. 	Any	Ltr	2 litres			
8.	set - retarders	<ul style="list-style-type: none"> • Chemirate 520 BA • Expiry date should be at least Dec-2020. • super plasticizer with a set - retarding effect for free falling concrete. • Should also act as a substantial water reducing agent for promoting high early and ultimate strength 	Any	Ltr	2 litre			

9.	Retarder	<ul style="list-style-type: none">• Sika Rapid®-1• Expiry date should be at least Dec-2020.• Chemical agent should slows down a chemical reaction of concrete.	Any	Ltr	2.5 litre																																							
10.	Accelerators	<ul style="list-style-type: none">• HYDRASET calcium chloride concrete set accelerator liquid admixture.• Should be of good quality• Expiry date should be at least Dec-2020.• Should accelerates initial setting time one to three times faster than normal mortar and concrete.	Any	Ltr	2.5 litre																																							
11.	Strain gauges for concrete	<p><u>specifications</u></p> <table><tr><td>Models 82-</td><td>P0390</td><td>P0391</td><td>P0392</td><td>P0393</td><td>P0396</td></tr><tr><td>Grid width mm0,9</td><td>0,9</td><td>1,2</td><td>2,3</td><td>1</td><td>1</td></tr><tr><td>Gauge length mm</td><td>10</td><td>20</td><td>30</td><td>60</td><td>120</td></tr><tr><td>Resistance ohm</td><td>120</td><td>120</td><td>120</td><td>120</td><td>120</td></tr><tr><td>Bridge</td><td>¼</td><td>¼</td><td>¼</td><td>¼</td><td>¼</td></tr><tr><td>No. of gauges per package</td><td>10</td><td>10</td><td>10</td><td>10</td><td>10</td></tr></table> <ul style="list-style-type: none">• Should provide very accurate electrical signal,• Strictly proportional to the strain of the specimen submitted to load application,• Should be accompanied with special Adhesive-Catalyst agent by which they can be applied to the specimen surface.• Other accessories all included in the Strain gauge application kit.• Up to 4 strain gauges ¼ bridge, and up to	Models 82-	P0390	P0391	P0392	P0393	P0396	Grid width mm0,9	0,9	1,2	2,3	1	1	Gauge length mm	10	20	30	60	120	Resistance ohm	120	120	120	120	120	Bridge	¼	¼	¼	¼	¼	No. of gauges per package	10	10	10	10	10	Imported	No.	24 strain gauges			
Models 82-	P0390	P0391	P0392	P0393	P0396																																							
Grid width mm0,9	0,9	1,2	2,3	1	1																																							
Gauge length mm	10	20	30	60	120																																							
Resistance ohm	120	120	120	120	120																																							
Bridge	¼	¼	¼	¼	¼																																							
No. of gauges per package	10	10	10	10	10																																							

		8 ½ bridge, <ul style="list-style-type: none"> • Should be suitable for cyclic loading and automatic determination of the Modulus of Elasticity. • Strain gauges should also be connected to a suitable data logger. • One of the channels of the Data log should be used for the load signal coming from an additional pressure transducer with selecting valve fitted to the compression tester. 						
12.	Strain Rosettes (3 Measuring Grids)	<ul style="list-style-type: none"> • 3 Measuring Grids • 0°/45°/90° Corner Rosettes • Strain gauge application kit • Ribbon leads, 13 mm grid, 120 Ohms, matched to steel • For Determining the Magnitude and Angle of Unknown Stress • Strain Gages for Static and Dynamic Applications • Ribbon Leads or Solder Pad Terminations • Encapsulated for Added Durability • Clear Alignment Marks 	Imported	No	10 Pieces			
13.	Light weight aggregate for light weight concrete	<u>Light weight aggregate of</u> <ul style="list-style-type: none"> • Rubber material (25 cft) • Foamed slag material (25 cft) <ul style="list-style-type: none"> ○ Aggregate Dry Unit Weight 600-1000 (kg/m3) • Sintered fly ash Exfoliated (25 cft) <ul style="list-style-type: none"> ○ Aggregate Dry Unit Weight 65-250 (kg/m3) 	any	Cft	75 cft Total (25 cft each)			
14.	silica fume	<ul style="list-style-type: none"> • Silica fume should be an ultrafine material with spherical particles less than 1 µm in diameter, • The bulk density of silica fume varies 	any	cft	5 Cft			

		from 130 (un-densified) to 600 kg/m ³ . • The specific gravity of silica fume is generally in the range of 2.2 to 2.3.						
15.	Steel bars	• <u>Grade 60 steel</u> <ul style="list-style-type: none"> Length 16 inches per piece Bar No. 4 full gauge Quantity : 20 Steel should be without stains and of good quality, • <u>Grade 60 steel</u> <ul style="list-style-type: none"> Length 27 inches per piece Bar no. 4 full gauge Quantity : 20 Steel should be without stains and of good quality, 	any	No	Total 40 pieces			
16.	Steel test specimens for UTM testing and Demonstration purpose	<u>Grade 60 and above grade</u> <ul style="list-style-type: none"> Steel must be of good quality and full Gauge as mentioned against each bar, and should be without stains, Following are specifications of required steel bars <ul style="list-style-type: none"> Bar No. 4 Quantity: 12, Length: 18 Inches Bar No. 5 Quantity: 06, Length: 18 Inches Bar No. 6 Quantity: 12, Length: 18 Inches Bar No. 7 Quantity: 06, Length: 18 Inches Bar No. 8 Quantity: 12, Length: 18 Inches Bar No. 10 Quantity: 06, Length: 18 Inches 	any	No	Total of 72 pieces			

		<ul style="list-style-type: none"> • Bar No. 11 Quantity: 06, Length: 18 Inches • Bar No. 14 Quantity: 06, Length: 18 Inches • Bar No. 18 Quantity: 06, Length: 18 Inches 						
17.	Steel stirrups for beams	<u>Grade 40</u> <ul style="list-style-type: none"> • Bar No. 03 full gauge • (4X4 inch square stirrups) • Steel should be without stains 	any	No	60 stirrups required			
18.	Lubrication for Concrete (Mobil oil)	<ul style="list-style-type: none"> • Quality should be normal • Viscosity 20 – 50 • Nominal Phosphorus level 1600 ppm • Nominal Zinc level 1750 ppm • Used as lubricant for concrete cylinders and cubes • For easy removal of formwork from hardened concrete. 	any	Ltr	30 litres (3 x pack of 10 litres)			
19.	Safety helmets	<u>Grey Color</u> <ul style="list-style-type: none"> • Single one color helmet • Must be of best quality • Sample should be approved from concerned Department prior to delivery • Fits a wide range of heads from 55cm - 62cm • Six point head hardness • Attachment slot for ear muffs or visor • Foam sweatband, Chin Strap Holes • Protective shell: The Safety Helmet has complex strips made of polyethylene. • Protective Helmet is manufactured from UV stabilized high-density polyethylene, which makes it stable and reliable. • Fully adjustable slip ratchet headband for a comfortable fit across the widest range 	Well-known brand	No	50 (10 x Grey) (10 x Light Green) (30 x white)			

		of head shapes and sizes. <ul style="list-style-type: none"> • Suitable in multi projects. • Protective, adheres to Safety Standards. • Fit for all construction projects • There should be no writing on the helmet. 						
20.	Reflective Safety jackets	<ul style="list-style-type: none"> • Reflective Vest Light and Breathable High Visibility Reflective Safety Vest Suitable for Night Duty, Construction Safety Vest • Color : light green color • Must be of best quality • Sample should be approved from concerned Department prior to delivery FEATURE <ul style="list-style-type: none"> • Sleeveless PPE with Highly Reflective and Visible 2 inches wide Reflective Strips wrap along the shoulders, chest, waist and back area. • Provides a 360° reflection while you are in daylight, low light condition or at night. • Transparent ID pocket on the left upper chest. • Should be compatible in color with the light green helmet in serial no. 22 TYPE <ul style="list-style-type: none"> • 100% Polyester High Reflective Safety Vest with 360° Visibility; • 150g HQ Breathable Mesh and 300D Oxford Fabric for pocket materials; • Light Weight, Durable, Machine Washable. • Size ranges should be as per following body condition <ul style="list-style-type: none"> ○ Adults of age more than 25 ○ For male height range starts from 	Well-known brand	No	60 (50 x Grey) (10 x Light Green)			

		5 feet 7 inches to 6 feet 0 inches.						
21.	CTC (Carbon tetra chloride)	<ul style="list-style-type: none"> Carbon tetra chloride For separation of bitumen samples 	any	Ltr	20 liters			
22.	Bitumen	Bitumen of all three grades <ul style="list-style-type: none"> Grade 40-60 Quantity: 20 kg Grade 70-80 Quantity: 20 kg Grade 80-100 Quantity: 20 kg 	any	Kg	20 kg each (Total 60 kg)			
23.	Cement	<ul style="list-style-type: none"> OPC Ordinary Portland cement Bag of 50 Kg 	Any good brand	Kg	5 Bags			
24.	Coarse aggregate	Coarse aggregate Pan <ul style="list-style-type: none"> ½ inch down ½ inch pure ¾ inch down ¾ in pure 	any	Cft	100 Cft each (Total 400 cft)			
25.	Fine Aggregate	Fine Aggregate <ul style="list-style-type: none"> River sand Lawrence pur sand 	any	Cft	200 Cft Each (Total 400 cft)			
26.	Castor oil	<ul style="list-style-type: none"> For fluid mechanics labs Boiling point is 313 °C (595 °F) Density is 961 kg/m3. 	any	Ltr	5 L			
27.	Thin machine oil	For fluid mechanics labs <ul style="list-style-type: none"> Good inherent oxidation Thermal stability Contains good film strength Have anti rust additives 	any	Ltr	5 L			
28.	Well graded Gravel (2- 5 mm), Washed	For fluid mechanics labs <ul style="list-style-type: none"> SIZE : 2- 5 mm Washed and clean 	any	Cft	20 Cft			

29.	Sand (Grain size 1 - 2 mm), washed	For fluid mechanics labs <ul style="list-style-type: none"> Grain size 1 - 2 mm washed 	any	Cft	20 Cft			
30.	*Dye (color for flow visualization in Osborne apparatus)	For fluid mechanics labs <ul style="list-style-type: none"> color for flow visualization in Osborne apparatus 	any	Ltr	5 Ltr			
31.	Lime powder	For Survey labs <ul style="list-style-type: none"> Should be non-hydrated 	any	Kg	10 kg			
32.	Plotter Sheets	For Survey labs Size: <ul style="list-style-type: none"> 22" x 34" sheets (50 sheets) 30"x 34" (25 sheets) 	Well-known brand	No	75			
33.	Oil paint (red)	For Survey labs <ul style="list-style-type: none"> with admixture/thinner Along 2xNo. Brush 	any	Ltr	1000 ml			
34.	Ear muffs	<ul style="list-style-type: none"> Features- Foam ear muffs provide comfort and secure fit Color: Orange And Black Comfort ear defenders 	Well-known brand	No	30			
35.	Dust Mask	<ul style="list-style-type: none"> Dust Respiratory Mask White in color. 	any	No	100			
36.	Gloves for cement and Concrete	<ul style="list-style-type: none"> Specification Age Group .Adult CE Standard (Tested) Clothing Size Full Description Large Color, Black/Grey Construction Material (Safety) Polyester Glove Coating Performance 1 Year Guarantee Parent color : Grey Size Type Regular 	any	No	30			
37.	Rubber Gloves for handling Cement and	<ul style="list-style-type: none"> For handling Cement and concrete Made of good quality rubber Large and medium combo 	any	No	30			

	concrete	<ul style="list-style-type: none"> Fat and Abrasion Resistance 						
38.	Le-chatlier apparatus	<ul style="list-style-type: none"> Mould should consists of a spring tensioned split cylinder 30 mm internal diameter, 30 mm high with two indicator stems which measure 165 mm from the points of the centre line of the cylinder and O ring. Accessories required without Water bath. <ul style="list-style-type: none"> Like glass plate Weight Two sets (Each containing 6 moulds) No need of water bath. 	Imported	No	12 (Two sets Each containing 6 moulds)			
39.	Cylinder mould 6 x 12 inch	<ul style="list-style-type: none"> ASTM standard Steel cylinder mould, dia. 150x300 mm (6X12 inch), Weight 10 kg approx. Split type with butterfly nut. Each cylinder accompanied with Graduated tamping rod dia. 16x600 mm 	Well-known brand	No	06			
40.	Cylinder mould 4 x 8inch	<ul style="list-style-type: none"> ASTM standard Steel cylinder mould, dia. (4X8 inch) 	Well-known brand	No	06			
41.	Set of Scoop	<ul style="list-style-type: none"> 85 Ounce Aluminum Scoop Made of heavy-gauge diecast aluminum Light weight and heavy duty Good quality Each set containing 3 scoop of different sizes 	Well-known brand	No	05 sets			
42.	Rubber hammer	<ul style="list-style-type: none"> Product Dimensions <ul style="list-style-type: none"> 13.6 x 3.8 x 2.6 inches Double-faced solid rubber head High-strength Fiberglass handle core helps absorb vibrations Exterior poly jacket protects handle core from missed strikes Soft, nonslip rubber grip 	Any	No	08			

		<ul style="list-style-type: none"> Material: high-strength lightweight fiberglass 						
43.	Straight edge	<ul style="list-style-type: none"> Straight Edge used to remove excess material when molding cube and cylinder specimens. Conduction slump cone and air meter tests. Size 1"x12" (2.5X30.4cm) 	Any	No	05			
44.	Cube mould 6 x 6 inch	<ul style="list-style-type: none"> Cast iron cube moulds size 6X6 inch Each cube accompanied with square cube tamping rod with round side handle Size 25 mm square. x 380 mm long 	Imported	No	12			
45.	Measuring water 5 lit steel Bucket	<ul style="list-style-type: none"> Made by stainless steel measuring Bucket With Markings on it With Handle 	Any	No	02			
46.	Eyes safety Goggles	<ul style="list-style-type: none"> Safety glasses should have safety frames constructed of metal and impact-resistant lenses. Side protection is required. Dust goggles, sometimes called direct ventilated goggles, Must tight fitting eye protection designed to resist the passage of large particles into the goggles. 	Any	No	30			

Note: Warranty of all mentioned items should be 6 months. Items at serial No 19,20 & 34 are exempted from warranty.

Firm Name:	_____
Signature:	_____
Name:	_____
Designation:	_____

**Annex B****TECHNICAL OFFER****NUTECH / SCM / Civil Lab Cons Items (PSDP) 2020 / TD-129****Fill in following essential parameters:-**

1. Validity of Offer: _____ Days (Should not be less than **90 days**)
2. Delivery period: _____ Days (After placement of order)
3. Country of Origin: _____
4. Warranty Period: _____

General

1. GST Number: _____ (Enclose Copy)
2. NTN / CNIC: _____ (if exempted, provide valid exemption certificate)

Payment Terms

Ser	In FOB Cases	In FOR Cases
a.	80 % through LC on sight.	20% advance payment against BG/CDR/Pay Order/DD
b.	20% after delivery, installation / commissioning, user satisfaction certificate	80% payment after delivery, installation / commissioning /user satisfaction certificate

Details of Foreign Principal Information with account details)

1. Name / Title: _____
2. Address: _____

OEM Name:	Firm Name:	Signature:
OEM Focal Person:	Firm Focal Person:	Official Seal:
OEM Phone Number:	Firm Phone Number:	Name:
OEM Email Id:	Firm Email Id:	Designation:

Annex C**FINANCIAL OFFER****NUTECH / SCM / Civil Lab Cons Items (PSDP) 2020 / TD-129**

Ser	Item Name/Size	Specification	A/U	Qty Req	Unit Price PKR (Including Tax)	Total Price PKR (Including Tax)
1.	Rubber Pads 6 Inches Dia	<ul style="list-style-type: none"> • Pads must ensure load uniformity. • Pads should be reused up to 100 tests. • Quantity of 12 pads of 1,500—6,000 psi strength and • Quantity of 12 pads of 4,000—9,000 psi strength • 6in pads meet the latest ASTM C1231 and AASHTO T 22 specifications. • 50 Durometer Pads meet tensile strength • Thickness of ¾ inches • Durometer requirements of AASHTO T 22 and should be appropriate for compressive strengths from 1,500—6,000psi (10—40mPa) <ul style="list-style-type: none"> ○ For range of 1,500—6,000 psi, Quantity should be 12 • 70 Durometer Pads used for strengths from 4,000—7,000psi (28—50mPa) <ul style="list-style-type: none"> ○ For range of 4,000—7,000psi, Quantity should be 12 • Dia should be 6 inch 	No	12		
2.	Rubber Pads 4 Inches Dia	<ul style="list-style-type: none"> • Pads must ensure load uniformity. • Pads should be reused up to 100 tests. • Thickness of ¾ inches • Quantity of 6 pads of 1,500—6,000 psi strength and • Quantity of 6 pads of 4,000—9,000 psi strength • 4in pads meet the latest ASTM C1231 and AASHTO T 22 specifications. • 50 Durometer Pads meet tensile strength and durometer requirements of AASHTO T 22 • Should be appropriate for compressive strengths from 1,500—6,000psi (10—40mPa) <ul style="list-style-type: none"> ○ For range of 1,500—6,000 psi, Quantity should be 12 • 70 Durometer Pads are used for strengths from 4,000—7,000psi (28—50mPa) <ul style="list-style-type: none"> ○ For range of 4,000—7,000psi, Quantity should be 12 	No	12		

		<ul style="list-style-type: none"> 4 inch Diameter 				
3.	<p>Cylinder steel Retainer set</p> <p>Grp "A" (4 inches Dia)</p> <p>Grp "B" (6 in Dia)</p>	<ul style="list-style-type: none"> Group "A" <ul style="list-style-type: none"> 4in Steel Retainer Set Must meet compression test criteria of 4in (102mm) diameter Concrete Cylinders. Group "B" <ul style="list-style-type: none"> 6in Steel Retainer Set Capping for compressive strength testing of 6in (152mm) diameter Concrete Cylinders. Must meet compression test criteria for un-bonded capping of 6in (152mm) diameter Concrete Cylinders. <p><u>General specifications</u></p> <ul style="list-style-type: none"> Steel Retainers should be constructed of alloy steel, Precisely machined to specified dimensions Material: Rugged alloy steel construction Corrosion-resistant plating inside and out Plane bearing surfaces (0.002 inch) Meet ASTM and AASHTO requirements Included Items: <ul style="list-style-type: none"> 6in Steel Retainers, set of 2 4in Steel Retainers, set of 2 Accessories Each set contain upper cylinder plate and lower cylinder plate. Meets Standard(s): <ul style="list-style-type: none"> AASHTO T 22 ASTM C1231/1231M 	No	Total 4 sets (2 sets of 4" Dia and 2 sets of 6" Dia)		
4.	Three Gang Cube Test Mold (2" x 2" x 2")	<ul style="list-style-type: none"> Must be of stainless steel Every mold contain three spots for every (2" x 2" x 2") cube. The Cube Mold, 2"x2", Stainless Steel, must be accurately machined for casting 2in (51mm) cubes in diagonal position. Wing nuts must secure the mold halves to the detachable base plate. Wing nut should clamps lock the mold to the base. Stainless thumb screws should be provided to secure halves tightly together. Large upper surface strike off area. Meets Test Methods of ; <ul style="list-style-type: none"> AASHTO T106 ASTM C 109 	No	4 (Each mold contain 3 cubes)		

		<ul style="list-style-type: none"> ○ ASTM C 141 ○ ASTM C 472 ○ ASTM C 579 ○ ASTM C 87 				
5.	Rubber Tamper	<ul style="list-style-type: none"> • Rubber Tamper for Cube Molds • Dimensions of <ul style="list-style-type: none"> ○ 6-in long, ○ 1-in wide ○ and 1/2-in thick • made of hard rubber • Meets Test Methods: <ul style="list-style-type: none"> ○ AASHTO T106 ○ ASTM C 109 ○ ASTM C 141 ○ ASTM C 311 	No	6		
6.	12-Inch Heavy Duty <u>Flat Chisel</u> With Hand Protection,	<ul style="list-style-type: none"> • 12-Inch Heavy Duty Flat Chisel With Hand Protection, • Flat Chisel • Flat Head, • Demolishing/Masonry/Carving/Concrete Breaker Chisels • High hardness and anti-rust chrome-vanadium (CVS) steel • Shock-absorbing soft cover handle • Plate shape hand protection • Pattern: Flat Head 	No	4		
7.	Water reducer	<ul style="list-style-type: none"> • Sika® Plastiment® PR-450 • Expiry date should be at least Dec-2020. • Water reducer or super plasticizer. • High Performance Plasticising and Slump Retaining Concrete Admixture. 	Ltr	2 litres		
8.	set - retarders	<ul style="list-style-type: none"> • Chemirate 520 BA • Expiry date should be at least Dec-2020. • super plasticizer with a set - retarding effect for free falling concrete. • Should also act as a substantial water reducing agent for promoting high early and ultimate strength 	Ltr	2 litre		
9.	Retarder	<ul style="list-style-type: none"> • Sika Rapid®-1 • Expiry date should be at least Dec-2020. • Chemical agent should slows down a chemical reaction of concrete. 	Ltr	2.5 litre		
10.	Accelerators	<ul style="list-style-type: none"> • HYDRASET calcium chloride concrete set accelerator liquid admixture. • Should be of good quality • Expiry date should be at least Dec-2020. 	Ltr	2.5 litre		

		<ul style="list-style-type: none">Should accelerates initial setting time one to three times faster than normal mortar and concrete.																																								
11.	Strain gauges for concrete	<p><u>specifications</u></p> <table><tr><th>Models 82-</th><th>P039 0</th><th>P039 1</th><th>P039 2</th><th>P039 3</th><th>P03 96</th></tr><tr><td>Grid width mm0,9</td><td>0,9</td><td>1,2</td><td>2,3</td><td>1</td><td>1</td></tr><tr><td>Gauge length mm</td><td>10</td><td>20</td><td>30</td><td>60</td><td>120</td></tr><tr><td>Resistance ohm</td><td>120</td><td>120</td><td>120</td><td>120</td><td>120</td></tr><tr><td>Bridge</td><td>¼</td><td>¼</td><td>¼</td><td>¼</td><td>¼</td></tr><tr><td>No. of gauges per package</td><td>10</td><td>10</td><td>10</td><td>10</td><td>10</td></tr></table> <ul style="list-style-type: none">Should provide very accurate electrical signal,Strictly proportional to the strain of the specimen submitted to load application,Should be accompanied with special Adhesive-Catalyst agent by which they can be applied to the specimen surface.Other accessories all included in the Strain gauge application kit.Up to 4 strain gauges ¼ bridge, and up to 8 ½ bridge, <ul style="list-style-type: none">Should be suitable for cyclic loading and automatic determination of the Modulus of Elasticity.Strain gauges should also be connected to a suitable data logger.One of the channels of the Data log should be used for the load signal coming from an additional pressure transducer with selecting valve fitted to the compression tester.	Models 82-	P039 0	P039 1	P039 2	P039 3	P03 96	Grid width mm0,9	0,9	1,2	2,3	1	1	Gauge length mm	10	20	30	60	120	Resistance ohm	120	120	120	120	120	Bridge	¼	¼	¼	¼	¼	No. of gauges per package	10	10	10	10	10	No.	24 strain gauges		
Models 82-	P039 0	P039 1	P039 2	P039 3	P03 96																																					
Grid width mm0,9	0,9	1,2	2,3	1	1																																					
Gauge length mm	10	20	30	60	120																																					
Resistance ohm	120	120	120	120	120																																					
Bridge	¼	¼	¼	¼	¼																																					
No. of gauges per package	10	10	10	10	10																																					
12.	Strain Rosettes (3 Measuring Grids)	<ul style="list-style-type: none">3 Measuring Grids0°/45°/90° Corner RosettesStrain gauge application kitRibbon leads, 13 mm grid, 120 Ohms, matched to steelFor Determining the Magnitude and Angle of Unknown StressStrain Gages for Static and Dynamic ApplicationsRibbon Leads or Solder Pad TerminationsEncapsulated for Added DurabilityClear Alignment Marks	No	10 Pieces																																						
13.	Light weight aggregate for light weight concrete	<p><u>Light weight aggregate of</u></p> <ul style="list-style-type: none">Rubber material (25 cft)Foamed slag material (25 cft)<ul style="list-style-type: none">Aggregate Dry Unit Weight 600-1000 (kg/m3)Sintered fly ash Exfoliated (25 cft)	Cft	75 cft Total (25 cft each)																																						

		<ul style="list-style-type: none"> ○ Aggregate Dry Unit Weight 65-250 (kg/m³) 				
14.	silica fume	<ul style="list-style-type: none"> • Silica fume should be an ultrafine material with spherical particles less than 1 µm in diameter, • The bulk density of silica fume varies from 130 (un-densified) to 600 kg/m³. • The specific gravity of silica fume is generally in the range of 2.2 to 2.3. 	cft	5 Cft		
15.	Steel bars	<ul style="list-style-type: none"> • <u>Grade 60 steel</u> <ul style="list-style-type: none"> ○ Length 16 inches per piece ○ Bar No. 4 full gauge ○ Quantity : 20 ○ Steel should be without stains and of good quality, • <u>Grade 60 steel</u> <ul style="list-style-type: none"> ○ Length 27 inches per piece ○ Bar no. 4 full gauge ○ Quantity : 20 ○ Steel should be without stains and of good quality, 	No	Total 40 pieces		
16.	Steel test specimens for UTM testing and Demonstration purpose	<p><u>Grade 60 and above grade</u></p> <ul style="list-style-type: none"> • Steel must be of good quality and full Gauge as mentioned against each bar, and should be without stains, Following are specifications of required steel bars • Bar No. 4 Quantity: 12, Length: 18 Inches • Bar No. 5 Quantity: 06, Length: 18 Inches • Bar No. 6 Quantity: 12, Length: 18 Inches • Bar No. 7 Quantity: 06, Length: 18 Inches • Bar No. 8 Quantity: 12, Length: 18 Inches • Bar No. 10 Quantity: 06, Length: 18 Inches • Bar No. 11 Quantity: 06, Length: 18 Inches • Bar No. 14 	No	Total of 72 pieces		

		Quantity: 06, Length: 18 Inches • Bar No. 18 Quantity: 06, Length: 18 Inches				
17.	Steel stirrups for beams	<u>Grade 40</u> • Bar No. 03 full gauge • (4X4 inch square stirrups) • Steel should be without stains	No	60 stirrups required		
18.	Lubrication for Concrete (Mobil oil)	• Quality should be normal • Viscosity 20 – 50 • Nominal Phosphorus level 1600 ppm • Nominal Zinc level 1750 ppm • Used as lubricant for concrete cylinders and cubes • For easy removal of formwork from hardened concrete.	Ltr	30 litres (3 x pack of 10 litres)		
19.	Safety helmets	<u>Grey Color</u> • Single one color helmet • Must be of best quality • Sample should be approved from concerned Department prior to delivery • Fits a wide range of heads from 55cm - 62cm • Six point head hardness • Attachment slot for ear muffs or visor • Foam sweatband, Chin Strap Holes • Protective shell: The Safety Helmet has complex strips made of polyethylene. • Protective Helmet is manufactured from UV stabilized high-density polyethylene, which makes it stable and reliable. • Fully adjustable slip ratchet headband for a comfortable fit across the widest range of head shapes and sizes. • Suitable in multi projects. • Protective, adheres to Safety Standards. • Fit for all construction projects • There should be no writing on the helmet.	No	50 (10 x Grey) (10 x Light Green) (30 x white)		
20.	Reflective Safety jackets	• Reflective Vest Light and Breathable High Visibility Reflective Safety Vest Suitable for Night Duty, Construction Safety Vest • Color : light green color • Must be of best quality • Sample should be approved from concerned Department prior to delivery FEATURE • Sleeveless PPE with Highly Reflective and Visible 2 inches wide Reflective Strips wrap along the shoulders, chest, waist and back area.	No	60 (50 x Grey) (10 x Light Green)		

		<ul style="list-style-type: none"> Provides a 360° reflection while you are in daylight, low light condition or at night. Transparent ID pocket on the left upper chest. Should be compatible in color with the light green helmet in serial no. 22 <p>TYPE</p> <ul style="list-style-type: none"> 100% Polyester High Reflective Safety Vest with 360° Visibility; 150g HQ Breathable Mesh and 300D Oxford Fabric for pocket materials; Light Weight, Durable, Machine Washable. Size ranges should be as per following body condition <ul style="list-style-type: none"> Adults of age more than 25 For male height range starts from 5 feet 7 inches to 6 feet 0 inches. 				
21.	CTC (Carbon tetra chloride)	<ul style="list-style-type: none"> Carbon tetra chloride For separation of bitumen samples 	Ltr	20 liters		
22.	Bitumen	Bitumen of all three grades <ul style="list-style-type: none"> Grade 40-60 Quantity: 20 kg Grade 70-80 Quantity: 20 kg Grade 80-100 Quantity: 20 kg 	Kg	20 kg each (Total 60 kg)		
23.	Cement	<ul style="list-style-type: none"> OPC Ordinary Portland cement Bag of 50 Kg 	Kg	5 Bags		
24.	Coarse aggregate	Coarse aggregate Pan <ul style="list-style-type: none"> ½ inch down ½ inch pure ¾ inch down ¾ in pure 	Cft	100 Cft each (Total 400 cft)		
25.	Fine Aggregate	Fine Aggregate <ul style="list-style-type: none"> River sand Lawrence pur sand 	Cft	200 Cft Each (Total 400 cft)		
26.	Castor oil	<ul style="list-style-type: none"> For fluid mechanics labs Boiling point is 313 °C (595 °F) Density is 961 kg/m3. 	Ltr	5 L		
27.	Thin machine oil	For fluid mechanics labs <ul style="list-style-type: none"> Good inherent oxidation Thermal stability 	Ltr	5 L		

		<ul style="list-style-type: none"> Contains good film strength Have anti rust additives 				
28.	Well graded Gravel (2- 5 mm), Washed	For fluid mechanics labs <ul style="list-style-type: none"> SIZE : 2- 5 mm Washed and clean 	Cft	20 Cft		
29.	Sand (Grain size 1 - 2 mm), washed	For fluid mechanics labs <ul style="list-style-type: none"> Grain size 1 - 2 mm washed 	Cft	20 Cft		
30.	*Dye (color for flow visualization in Osborne apparatus)	For fluid mechanics labs <ul style="list-style-type: none"> color for flow visualization in Osborne apparatus 	Ltr	5 Ltr		
31.	Lime powder	For Survey labs <ul style="list-style-type: none"> Should be non-hydrated 	Kg	10 kg		
32.	Plotter Sheets	For Survey labs Size: <ul style="list-style-type: none"> 22" x 34" sheets (50 sheets) 30"x 34" (25 sheets) 	No	75		
33.	Oil paint (red)	For Survey labs <ul style="list-style-type: none"> with admixture/thinner Along 2xNo. Brush 	Ltr	1000 ml		
34.	Ear muffs	<ul style="list-style-type: none"> Features- Foam ear muffs provide comfort and secure fit Color: Orange And Black Comfort ear defenders 	No	30		
35.	Dust Mask	<ul style="list-style-type: none"> Dust Respiratory Mask White in color. 	No	100		
36.	Gloves for cement and Concrete	<ul style="list-style-type: none"> Specification Age Group .Adult CE Standard (Tested) Clothing Size Full Description Large Color, Black/Grey Construction Material (Safety) Polyester Glove CoatingPerformance 1 Year Guarantee Parent color : Grey 	No	30		

		<ul style="list-style-type: none"> Size Type Regular 				
37.	Rubber Gloves for handling Cement and concrete	<ul style="list-style-type: none"> For handling Cement and concrete Made of good quality rubber Large and medium combo Fat and Abrasion Resistance 	No	30		
38.	Le-chatlier apparatus	<ul style="list-style-type: none"> Mould should consists of a spring tensioned split cylinder 30 mm internal diameter, 30 mm high with two indicator stems which measure 165 mm from the points of the centre line of the cylinder and O ring. Accessories required without Water bath. <ul style="list-style-type: none"> Like glass plate Weight Two sets (Each containing 6 moulds) No need of water bath. 	No	12 (Two sets Each containing 6 moulds)		
39.	Cylinder mould 6 x 12 inch	<ul style="list-style-type: none"> ASTM standard Steel cylinder mould, dia. 150x300 mm (6X12 inch), Weight 10 kg approx. Split type with butterfly nut. Each cylinder accompanied with Graduated tamping rod dia. 16x600 mm 	No	06		
40.	Cylinder mould 4 x 8inch	<ul style="list-style-type: none"> ASTM standard Steel cylinder mould, dia. (4X8 inch) 	No	06		
41.	Set of Scoop	<ul style="list-style-type: none"> 85 Ounce Aluminum Scoop Made of heavy-gauge diecast aluminum Light weight and heavy duty Good quality Each set containing 3 scoop of different sizes 	No	05 sets		
42.	Rubber hammer	<ul style="list-style-type: none"> Product Dimensions <ul style="list-style-type: none"> 13.6 x 3.8 x 2.6 inches Double-faced solid rubber head High-strength Fiberglass handle core helps absorb vibrations Exterior poly jacket protects handle core from missed strikes Soft, nonslip rubber grip Material: high-strength lightweight fiberglass 	No	08		
43.	Straight edge	<ul style="list-style-type: none"> Straight Edge used to remove excess material when molding cube and cylinder specimens. Conduction slump cone and air meter tests. Size 1"x12" (2.5X30.4cm) 	No	05		

44.	Cube mould 6 x 6 inch	<ul style="list-style-type: none"> • Cast iron cube moulds size 6X6 inch • Each cube accompanied with square cube tamping rod with round side handle • Size 25 mm square. x 380 mm long. 	No	12		
45.	Measuring water 5 lit steel Bucket	<ul style="list-style-type: none"> • Made by stainless steel measuring Bucket • With Markings on it • With Handle 	No	02		
46.	Eyes safety Goggles	<ul style="list-style-type: none"> • Safety glasses should have safety frames constructed of metal and impact-resistant lenses. • Side protection is required. • Dust goggles, sometimes called direct ventilated goggles, • Must tight fitting eye protection designed to resist the passage of large particles into the goggles. 	No	30		
Total						

Firm Name: _____

Signature: _____

Name: _____

Designation: _____

Tender No _____

Name of the Firm _____

Firm Address _____

Date _____

Telephone No _____

E-Mail _____

To,

DD SCM Office
NUTECH University
I-12, Main IJP Road,
Islamabad.

Dear Sir

1. I / We hereby offer to supply to the NUTECH University the stores detailed in schedule to the tender inquiry or such portion thereof as you may specify in the acceptance of tender at the price offered against the said schedule and further agree that this offer will remain valid up to 90 days after opening of **Financial offer** and will not be withdrawn or altered in terms of rates quoted and the conditions already stated therein or on before this date. I / we shall be bound by a communication of acceptance to be dispatched within the prescribed time.
2. I / we have understood the instructions to Tenders and General Conditions Governing Contract available at NUTECH website and have thoroughly examined the specifications / drawing and / or patterns quoted in the schedule here to and am/are fully aware of the nature of the stores required and my/ our offer is to supply stores strictly in accordance with the requirements.

Yours Faithfully.

(Signature of Tenderer)

Designation

Date:

Individual signing tender and / or other documents connected with a contract must be signed by principal authorized rep/ OEM rep/ Authorized partner firm rep.

BANK GUARANTEE AGAINST
"ADVANCE/PERFORMANCE/WARRANTY GUARANTEE
Which ever is applicable

Guarantee No _____
Date: _____
Amount: _____
Valid upto: _____

In Favour of:

National University of Technology (NUTECH), IJP Road, I-12, Islamabad.

Subject: **In compliance with terms of Advance/Performance/Warranty**
Guarantee Bank Guarantee

Contract No: _____
dated _____

Dear Sir,

1. Whereas your good-self have entered into Contract No: _____ dated _____ with M/s [Firm Name] Located at [Firm Address], Herein after referred to as our customer and that one of the conditions of the Contract is submission of Bank Guarantee by our customer to your good-self for a sum of [Amount].

2. Incompliance with this stipulation of subj contract, we hereby agree and undertake as under:-

- a. To pay to you unconditionally on demand and / or without any reference to our Customer an amount not exceeding the sum of [Amount] as would be mentioned in your written Demand Notice.
- b. To keep this Guarantee in force till [Validity Date].
- c. That the validity of this Bank guarantee shall be kept two clear year ahead of the original / extended delivery period or the warrantee of the stores which so ever is later in duration on receipt of information from your office. Our liability under this Bank Guarantee shall cease on the closing of banking hours on the last date of validity of this Bank Guarantee. Claim received there after shall not been entertained by us whether you suffer a loss or not. On receipt of payment under this Guarantee, this

documents i.e., Bank Guarantee must be clearly cancelled, discharged and returned to us.

- d. That we shall inform your office regarding termination of the validity of this bank Guarantee on clear month before the actual expiry date of this Bank Guarantee.
- e. That with the consent of our customer you may amend / alter any term / cause of the contractor add / delete any term / clause to / from this contract without making any reference to us. We do not reserve any right to receive any such amendment / alternation or addition / deletion provided such like actions do not increase our monetary liability under this Bank Guarantee which shall be limited only [Amount.....].
- f. That the bank guarantee herein before given shall not be affected by any change in the constitution of the Bank or Customer / Supplier or Vendor.
- g. That this is an unconditional Bank guarantee, which shall be cashed on sight on presentation without any reference to our Customer / Supplier or Vendor.

Signature_____

Name_____

Desig_____

Bank Stamp_____

Note: No changes in the above given BG format shall be accepted.

"SELLER'S WARRANTY"

(To be provided on stamp paper)

Contract No: _____

Dated: _____

Validity year from the date of final acceptance of the Stores.

1. We hereby guarantee that we are the genuine and original Source of provisioning the Stores to our Buyer. We also undertake that nothing in the manufacturing of these Stores has been obtained through unauthorized means.
2. We hereby warrant and undertake that the Stores and all the associated spares/ accessories supplied under the terms and conditions of the above Contract, are:
 - a. brand new, complete in all respects, possessing good quality and standard workmanship; and
 - b. liable for replacement/rectification free of charge, if during the Warranty period the same are found defective before or under normal use or these do not remain within the limits and tolerances stated under the specifications or in any way not in accordance with the terms of this Contract. All expenses incurred in removal, re-provisioning and reinstallation of such defective Stores or their parts shall also be borne by us.
3. The Warranty shall remain valid for a period of _____ years from the date of final acceptance of the Stores.

Signature_____

Name_____

Desig_____

Stamp_____

Date_____

CHECK LIST**(This checked list must be attached with your technical offer, duly filled and****Signed by authorized signatory)****Tender No _____****Date _____**

1	Tender Processing Fee	a. Tender processing fee ref no _____ b. Bank _____ c. Amount _____	
2	EM/ Bid Bond	a. EM/ Bid Bond ref no _____ b. Bank _____	
3	Form Annex A, A-1, B and C signed by Authorized Signatory	Yes	No
4	Offering specification of items as per IT	Yes	No
5	Quoted Currency as per IT	Yes	No
6	Accounting unit/Qty as per IT	Yes	No
7	Delivery Schedule as per IT	Yes	No
8	Country of origin of store _____		
9	Name of OEM:- _____		
10	Original Performa invoice (Mandatory)	Yes	No
11	Certified that there is no Deviation from IT conditions/ there is deviation from IT condition as per fol details	Yes	No
12	Blacklisting certificate.	Yes	No
13	Verifiable OEM Certificate	Yes	No
14	Warranty Period as per IT	Yes	No
15	ATPs provided	Yes	No

Note: Fill and/or mark Yes/No where required

Signature of Firm Auth Signatory