

# TENDER DOCUMENTS

# Civil Lab Equipment

# NUTECH / SCM / Civil Lab Eqpt - PSDP 2021 / TD-184

# NATIONAL UNIVERSITY OF TECHNOLOGY

#### TENDER NOTICE

### National University of Technology (NUTECH)

#### NUTECH / SCM / RFID Solutions - PSDP 2021 / TD-187,

### NUTECH / SCM / Electrical Lab Eqpt - PSDP 2021 / TD-183,

#### NUTECH / SCM / Civil Lab Eqpt - PSDP 2021 / TD-184 &

#### NUTECH / SCM /Computer Lab Eqpt II - PSDP 2021 / TD-188

1. Sealed bids are invited from Government / FBR Registered Firms for the procurement of Lab Equipment for NUTECH on **FOR Basis**.

2. Tender documents containing terms, conditions and detailed specifications of items (including draft contract) can be downloaded from NUTECH website "<u>https://nutech.edu.pk/downloads/procurement/scm-tenders/</u> w.e.f **05 January 2021.** 

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. <u>Submit Rs 1500/- as Tender fee in favor of NUTECH NBP Account Main Branch, Civic</u> <u>Center G-6, Islamabad (Development Project Security A/c No. 0341-00316702674-7).</u> Please <u>attach bank receipt with technical offer. Offers will not be entertained without payment of</u> <u>processing fee.</u>

6.	Details for Submission & Opening of bids for tender are as under:-

Ser	Description	Submission	Tender Opening	Completion Days
a.	RFID Solutions - PSDP 2021 / TD-187	1130 hrs on 22 Jan 2021	1200 hrs on 22 Jan 2021	90 Days
b.	Electrical Lab Eqpt- PSDP 2021 / TD-183	1030 hrs on 25 Jan 2021	1100 hrs on 25 Jan 2021	120 Days
c.	Civil Lab Eqpt- PSDP 2021 / TD-184	1130 hrs on 25 Jan 2021	1200 hrs on 25 Jan 2021	120 Days
d.	Computer Lab Eqpt II - PSDP 2021 / TD-188	1230 hrs on 25 Jan 2021	1300 hrs on 25 Jan 2021	90 Days

# Deputy Director (Supply Chain Management) NATIONAL UNIVERSITY OF TECHNOLOGY, UPROAD, 1-12, ISLAMABAD Tel: 0092-51-5476768, Ext: 227

# NATIONAL UNIVERSITY OF TECHNOLOGY SUPPLY CHAIN MANAGEMENT INVITATION TO TENDER

#### Tender submission time: 1130 hours, 25 January 2021

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

2 **<u>Conditions Governing Contracts.</u>** 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. <u>Technical Offer.</u> 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 i.e literature/brochures) without mentioning the financial aspect of the offer 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. <u>Commercial Offer.</u> 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) IJ 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 **1130 hours on 25 January 2021.** 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. <u>Tender opening.</u> 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 intimate later. Only legitimate / registered representatives of firm will be allowed to attend tender opening.

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

7. <u>With drawal of offer</u> If the firm withdraws its offer within validity period the competent authority may place such firm under <u>embargo for a period</u>, which may be <u>extended up to one year</u>. Moreover, the Earnest Money of the firm will be <u>confiscated</u>.

8. **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.
- 9. **Disgualification.** 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. Manufacturer's relevant brochures and technical details on major equipment assemblies are not attached in support of specifications.
  - f. Offer received later than appointed / fixed date and time.
  - g. Subject to restriction of export license.
  - h. Offers (Commercial / technical) containing non-initialed / 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.
  - i. If the offer is found to be based on cartel action in connivance with other sources/participants of the tender.

10. <u>Earnest Money / Bid Bond.</u> 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.

#### 11. 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.

#### 12 <u>Terms of Payment/ LC Charges</u>

#### (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.

#### In FOR cases

- b. 20% advance payment will be made to the Seller on provision of unconditional Bank Guarantee/ CDR/ DD/ Pay order. Advance BG/CDR/DD/Pay order will be submitted at the time of signing the contract.
- c. 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.

13. <u>Warranty/ Bank Guarantee (BG)</u>. 2 Years against 5% Bank Guarantee/CDR/Pay Order/Bank Draft of the store value will be required from the successful bidders from the date of commissioning as performance bond. BG submitted shall remain valid for up to 60 days beyond completion of warranty period.

14. <u>**Taxes/ Duties/ Custom clearance</u>** All taxes /duties /import Licenses Fee as applicable under government laws in Pakistan as well as country of supplier shall be</u>

on Seller (in FOR Case). NUTECH will provide applicable exemption certificates and documents (In FOB Cases only).

15. <u>Insurance:</u> Insurance will be NUTECH's responsibility through NICL (in FOB Cases).

16. <u>Freight charges /Misc charges:</u> 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 seller's responsibility and all associated costs will be part of quotation as well.

17. **Delivery Schedule.** Store will be delivered within **120 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, pandemics/epidemics 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. Will be as under:-

"All Claims ,disputes ,controversies, differences arising out of or in connection with this contract ,including any question regarding its existence, validity, interpretation performance, breach or termination ,shall be referred to and shall finally be solved by binding arbitration. An Arbitration Committee Shall be constituted comprising Rector NUTECH and two Arbitration to be nominated on mutual agreement by each party. The venue of the Arbitration shall be the place of issuance of this contract or as Rector NUTECH may determine. In case of any difference, the clauses of Arbitration Act 1940, Rules and Regulation made thereof for time being enforce shall prevail. The award shall be final and binding on both parties.

a. Provided that written record of any such arbitration and its award shall be arranged properly. An award of such arbitration may be confirmed in a court of competent jurisdiction at Islamabad. b. Provided further that incase of any other question /dispute not covered under this clause, the decision of Rector NUTECH shall be final."

21. <u>**Redress Of Grievance.**</u> 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. <u>Technical Specification</u>: 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. <u>Inspection /Testing of Store</u>: 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. <u>Change In Specification /Mfr /Model.</u> No alternation marked/brand and quality of store will be entertained after the tender have been opened.

26. <u>Checking of Store at Consignee/User End.</u> 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. User/Consignee's report on checking of the stores will be binding on the seller in such cases.

27. **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 lose 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.

28. **<u>Original Performa Invoice</u>**: 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 (on 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.

## 29. **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. (On Judicial Paper)

- 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.
- Firms with previous pending/outstanding projects/business and unsatisfactory performance with NUTECH may not be considered for award of any further business.

Deputy Director Supply Chain Management Office

Page **11** of **44** 

#### <u>Annex-A</u>

# **Technical Specifications**

# NUTECH / SCM / Civil Lab Eqpt - PSDP 2021 / TD-184

Ser	Items	Description	A/U	Country of	Qty	Bidder Co	ompliance
				Origin		Yes	No
1	Hydrostatics Bench & Fluid Properties	<ul> <li>Comprehensive experimental introduction to hydrostatics</li> <li>For the study of the most relevant properties and phenomena in the field of fluid statics.</li> <li>Transparent tank for observing the processes</li> <li>Experimental unit each: measuring the buoyancy force, investigation of the hydrostatic pressure in liquids, calibration for bourdon type manometer, measuring the surface tension, communicating vessels, capillarity etc.</li> <li>Pitot tube for determining the total pressure and tube for static pressure</li> <li>Major accessories</li> <li>Dead Weight Calibration Apparatus         <ul> <li>Pressure manometer: Bourdon type. 0 – 3 bar.</li> <li>Set of masses of different weights</li> <li>Piston of suitable diameter and weight</li> </ul> </li> <li>Hydrostatic Pressure Apparatus         <ul> <li>Independent operating equipment</li> <li>Calculation of the pressure force exerted on both flat and curve surfaces</li> <li>Provision for variation of the angle of the surface on which the study is made</li> <li>Water Tank</li> <li>Set of masses of different weights</li> </ul> </li> </ul>	No	Europe/ USA	02		

#### Page **12** of **44**

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		<ul> <li>Autonomous equipment</li> <li>Transparent manometer.</li> <li>Cylinder with flywheel to introduce pressure in the circuit</li> <li>Metacentric Height Apparatus</li> <li>Dynamometers</li> <li>Capillary tubes</li> <li>Falling Ball viscometers</li> </ul> Or Equivalent Ranges and values are approximate and close values will be acceptable Experimental Capabilities:- <ul> <li>Density Measurement</li> <li>Demonstration of Pascal's principle</li> <li>Study and demonstration of capillarity</li> <li>Viscosity coefficient calculations</li> <li>Measurement of pressure</li> <li>Calibration of pressure gauges</li> <li>Archimedes' principle</li> <li>Stability of floating bodies</li> <li>Pressure, potential and kinetic energy</li> <li>Hydrostatic forces on submerged surfaces</li> <li>Metacentric height</li> <li>Bernoulli's equation</li> </ul>					
2	Fluid Friction in Pipe Apparatus (Losses in Pipe Network)	<ul> <li>Anodized aluminum frame and panels made of painted and stainless steel.</li> <li>This unit allows the detailed study of fluid friction pressure losses, which occur when a non-compressible fluid flows through pipes, valves, pipe fittings and flow metering devices.</li> <li>Sudden contraction and sudden enlargement, pipe bend, segment bend, pipe angle and ball valve as measurement objects</li> </ul>	No	Europe/USA	01		

#### Page **13** of **44**

	rage 13 of	
Minimum Five pipes of different     and roughness	diameter, material	
and roughness		
Minimum Four valves of different	nt types	
Minimum 8 types of couplings		
Special couplings		
<ul> <li>Elbows 90 ° short radius.</li> </ul>		
Elbows 90 ° long radius.		
• 45 ° elbows.		
Sudden enlargement.		
Abrupt narrowing.		
Gradual widening.		
Taper.		
Gate valve.		
Check valve.		
Valve seat.		
Ball valve.		
Diaphragm valve.		
Diaphragm.		
Venturi.		
Rotameter.		
• Filter.		
Annular chambers for precise n	neasurement of	
pressure		
<ul> <li>Thirty four pressure tapings with</li> </ul>	n quick action	
connections.		
Two water manometers, range:	0 – 1000 mm	
approximate		
Minimum Two Bourdon manom	eters, approximate	
range: 0 – 2.5 bar. –		
<ul> <li>Flowmeter approximate range 6</li> </ul>	600 – 6000 I/min	
Or Equivalent		
Item must be compatible with ex	isting Hydraulic	
bench FME 00 of Edibon Spain a	vailable in lab or	
any other Hydraulic Bench of rei	nowned brands	

#### Page **14** of **44**

					1	 <b>)</b>
		Ranges and values are approximate and close values will be acceptable				
		<ul> <li>Experimental Capabilities of</li> <li>Determination of pressure loss due to friction in pipes made of different materials and with different diameters and roughness.</li> <li>Determination and comparison of pressure loss in different types of valves.</li> <li>Determination and comparison of pressure loss in different fittings.</li> <li>Measurement of the flow with the Venturi tube and the Pitot tube.</li> <li>Determination and comparison of the discharge coefficient determined in the Venturi tube and the</li> </ul>				
		Pitot tube				
3	Speedy Moisture Meter	<ul> <li>Speedy moisture tester, 20 g cap. With carrying case and steel balls</li> <li>Vessel with gauge, digital scale, scoop, cleaning brush, cleaning cloth</li> <li>Moisture range 0-20 %</li> <li>Moisture tester reagent 500 gm with expiry limit of atleast 12 months at time of delivery</li> </ul>	No	Europe/USA	2	
4	Portable BOD and COD Measuring Devices	<ul> <li>Digital BOD and COD measuring device with complete accessories</li> <li>With excellent range, accuracy and resolution</li> <li>COD Measuring Devices.</li> <li>Comprises of         <ul> <li>Portable COD Photometer</li> <li>COD Reactor (minimum 25 vial capacity)</li> <li>Variable Volume 0.2-2ml pipetter and tips</li> <li>50 COD Vials (0 – 1500 mg/l) (2 packs of 25)</li> <li>Cooling Rack for COD vials.</li> <li>Water Mercury Free COD Vials 0-150 mg/l 16 mm</li> </ul> </li> </ul>	No	Europe/USA	4	

#### Page **15** of **44**

·		Page 15 of 44
	Diameter Pack of 25, 16 mm Water mercury-free	
	COD	
	o Results displayed as O₂mg/l	
	○ Water Mercury Free COD Vials 0-15,000 mg/l	
	Pack of 25, 16 mm Water mercury-free COD.	
	○ Results displayed as O₂ mg/l	
	BOD Measurement System 6 Place	
	It includes:-	
	<ul> <li>complete unit with 6 sensor heads and control unit with batteries</li> </ul>	
	<ul> <li>Power supply unit incl. Y-cable for common power</li> </ul>	
	supply of stirring unit	
	$\circ$ 1 x USB-cable	
	o 1 x remote control	
	<ul> <li>Inductive stirring unit</li> </ul>	
	• At least 6 sample bottles	
	• At least 6 rubber gaskets	
	• At least 6 magnetic stirring rods	
	• At least 1 overflow flask, 157 ml approximately	
	• At least 1 overflow flask, 428 ml	
	• At least 1 bottle, 50 ml potassium	
	• At least hydroxide solution	
	• At least 1 bottle, 50 ml nitrification inhibitor	
	solution	
	Thermostatic Controlled BOD Incubator.	
	Thermostat-controlled incubator specially designed	
	for BOD determination at 20 °C	
	Continuous regulation of a temperature range of 2 -	
	40 °C for various fields of application	
	<ul> <li>Temperature setting in increments of 0.1 °C</li> </ul>	
	<ul> <li>Equipped with</li> </ul>	
	o four standard 230 Volt earthed sockets inside,	
	$\circ$ a low power consumption	
	<ul> <li>LED display for temperature</li> </ul>	
	Experimental Capabilities	
	• To measure the, COD, BOD, TOC, SS and	

#### Page **16** of **44**

	1			1	1	2	
		<ul> <li>nitrates and detergent measurements etc.</li> <li>To measure biochemical oxygen demand and chemical oxygen demand in wastewater</li> <li>Or Equivalent</li> <li>Ranges and values are approximate and close values will be acceptable</li> </ul>					
5	Dynamic Cone Penetrometer with Accessories	<ul> <li>Portable hand operated for the rapid in-situ measurement of the structural properties of existing road pavements</li> <li>As per ASTM D 6951</li> <li>Continuous measurements down to a depth of approximately 800 mm or, with extension shafts to a maximum depth of 2 m</li> <li>It includes :- <ul> <li>Drop sliding hammer 8 kg weight, falling height of 575 mm</li> <li>Impact anvil with driving rod</li> <li>Two penetration rods with conical 60° point</li> <li>Anvil with driving rod</li> <li>Metal plate coupling for ruler</li> <li>Lower extension rod</li> <li>Upper extension rod</li> <li>Bar wrench, spanners, adhesives, steel ruler</li> <li>Wooden carrying box</li> </ul> </li> <li>Or Equivalent</li> <li>Ranges and values are approximate and close values will be acceptable</li> </ul>	No	Europe/USA	1		
6	SPT Apparatus with Complete Accessories	<ul> <li>Split-barrel</li> <li>Sampler made of hardened machined steel (1-3/8" id., 18" length)</li> <li>SPT adapter</li> <li>SPT cutting shoe</li> </ul>	No	Any	1		

#### Page **17** of **44**

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		<ul> <li>A pair of SPT split spoons</li> <li>SPT nose cone</li> <li>SPT steel catcher</li> <li>sampling rod (set of 20 steel pipe,1.5 meter length)</li> <li>Drive weight assembly consisting hammer (steel, 63.5 kg weight)</li> <li>guide rod (steel, 76.2 cm drop height)</li> <li>Anvil (machined steel)</li> <li>Tripod stand 5 meter long each leg is made of two parts.</li> <li>Vertical guide (machined steel), rope (3/4" x 15 meter),</li> <li>Pipe wrench (set of two, 24" length),</li> <li>Pulley (20 cm diameter).</li> </ul> Or Equivalent Ranges and values are approximate and close values will be acceptable					
7	Lab Plate Load Test Machine with DAQ System	<ul> <li>As per ASTM D1194, ASTM D1195, ASTM D1196</li> <li>Plate bearing test apparatus with 200kNcapacity or better and complete hydraulic assembly</li> <li>Electronic configuration with high resolution load cell and displacement transducer</li> <li>Hydraulic assembly and Pressure Transducer</li> <li>Connected to DATALOG version with rigid carrying case.</li> <li>DATALOG 8, 8 channels dataloger</li> <li>Battery operated with rigid carrying case</li> <li>Displacement transducer 50 mm (x3)</li> <li>Pressure transducer</li> <li>Adjustable support for displacement gauge (x3)</li> <li>Plate 160mm (6") dia. x 25mm (1")</li> <li>Plate 300mm (12") dia x 25mm (1")</li> <li>Plate 608mm (24") dia x 25mm (1")</li> </ul>	No	Europe/USA	1		

# Page **18** of **44**

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		<ul> <li>Plate 760mm (30") dia x 25mm (1")</li> <li>Datum bar 2.5 m long</li> <li>Extension kit to extend the datumbar from 2.5 m to 5.5 m long</li> <li>Wooden box for loading plates</li> <li>Carrying case, trolley type, suitable for plate bearing hydraulic assembly</li> <li>Supplied complete with calibration certificate.</li> <li>Wooden carrying case for datum bar</li> <li>3 universal coupling pliers for transducers</li> <li>Or Equivalent</li> <li>Ranges and values are approximate and close values will be acceptable</li> </ul>					
8	Soil Lathe/Trimmer and Extruder for Soil Samples	<ul> <li>Designed to reduce by trimming the diameter of a soil sample using a wire saw</li> <li>Soil Lathe can trim and Extrude samples from 35 mm to 100 mm diameter</li> <li>Open Wire Saw</li> <li>Wires pack of 12</li> <li>Trimming Knife</li> </ul> Or Equivalent Ranges and values are approximate and close values will be acceptable	No	Europe/USA	1		
9	Double Ring Infiltrometer	<ul> <li>Confirming to ASTM D3385 standard</li> <li>For conducting infiltration of water into soils in the field.</li> <li>Two infiltrometer rings (12 in and 24 in) x 20" high</li> <li>Driving cap,</li> <li>Two mariotte tubes (3,000 ml and 10,000 ml) for providing a constant head of water for the test</li> <li>Two splash guards, 30 ft of 3/8 in clear tubing</li> <li>Infiltrometer field set</li> <li>A 1/2"-thick aluminum driving plate with centering</li> </ul>	No	Europe/USA	1		

Page **19** of **44** 

	1			1	1	
		pins, Or Equivalent Ranges and values are approximate and close values will be acceptable				
10	Vacuum Desiccator for Soil Suspension	<ul> <li>Complete with perforated porcelainplate (mini. Dia 300 mm),</li> <li>Safety cage for vacuum desiccators</li> <li>Silica gel box 1000 g or more</li> <li>Or Equivalent</li> <li>Ranges and values are approximate and close values will be acceptable</li> </ul>	No	Europe/USA	2	
11	Coarse Aggregate Sieve Set	A set of 300 mm diameter sieves with the following aperture sizes: • 75.00 mm (3 in), • 37.50 mm (1½ in), • 9.50 mm (3/8 in), • 6.30 mm (1/4 in), • 4.75 mm (No.4), • 2.00 mm (No.10), • 425 microns (No.40), (No.100), • 75 microns (No.200), • lid, pan and a nylon brush. Or Equivalent Ranges and values are approximate and close values will be acceptable	No	Europe/USA	1	
12	Light Weight Deflectometer with DAQ System	<ul> <li>Lightweight deflectometer for determining bearing capacity and compaction quality of soils and non-cohesive subbases.</li> <li>Magnetic base plate for proper positioning of loading unit</li> <li>The machine includes:</li> </ul>	No	Europe/USA	1	

#### Page **20** of **44**

	1	1			1	၊ မပ္	je <b>20</b> 01 <b>44</b>
		<ul> <li>Loading mechanism with bubble level</li> <li>Load plate with acceleration transducer</li> <li>Electronic settlement measuring instrument</li> <li>USB Interface for thermal printer and PCconnection</li> <li>Thermal Printer with 5 paper rolls</li> <li>PC software</li> <li>Battery operated</li> <li>Power pack charger for vehicle (12/24V) andadapter for socket (100-240V / 50-60Hz / 1Ph),</li> <li>Transport cart for easier on-site transport between the measuring points</li> <li>Magnetic base plate for proper positioning of loading unit</li> <li>Carrying case for secure transport of the Light weight deflectometer</li> <li>Or Equivalent</li> <li>Ranges and values are approximate and close values will be acceptable</li> </ul>					
13	Skid Resistance Apparatus with Complete Accessories	<ul> <li>Confirming to EN 1097-8, EN 1338, EN 1341, EN 1342, EN 13036-4, EN 1436, BS 7976, ASTM E303 standards.</li> <li>Additional incorporated scale for tests on polished stone value specimens,</li> <li>Rule, made of plexi-glass, for sliding length verification, thermometer range –10 to +110 °C for surface temperature measurement, stool, wash bottle, bristle and tool set for machine use,</li> <li>carrying case and calibration certificate.</li> <li>Mounted rubber slider, TRL rubber, 76 mm width for site use (road surface), complete with conformity certificate.</li> <li>Mounted rubber slider, TRL rubber, 32 mm width for Polished Stone Value tests (laboratory), complete</li> </ul>	No	Europe/USA	1		

#### Page **21** of **44**

		<ul> <li>with conformity certificate.</li> <li>Mounted rubber slider, 4S rubber, 76 mm width (ceramics, marbles, paving tiles, sidewalk surface) complete with conformity certificate. Standards: EN 13036-4, BS 7976.</li> <li>Metal base plate for polished stone value tests in laboratory and for tests on natural stones and concrete block pavers.</li> <li>Clamping device for Polished Stone Value tests in laboratory.</li> <li>Clamping device for tests on natural stones (EN 1341, 1342); for concrete block pavers (EN 1339) and skidding tests on wooden floor (EN 1339).</li> <li>Pink lapping film (10 sheets) for skid calibration.</li> </ul>				
		Ranges and values are approximate and close values will be acceptable				
14	Concrete Flow Table Test Apparatus with Accessories	<ul> <li>Motorized Flow Table with Counter</li> <li>Top table square surface of 700x700 mm (minimum)</li> <li>Percent Flow Caliper</li> <li>Wooden Tamper</li> <li>Or Equivalent</li> </ul>	No	Imported	2	
		Ranges and values are approximate and close values will be acceptable				

Firm Name:		
Signature:		
Name:		
Designation:		

# **Special Instructions**

Description		Bidd	der	Tech Scrutiny to be done by User		
	Yes	No	Alternate Offer	Accepted	Rejected	Reasons of Rejection
Environment Conditions						
(a) Temperature range: 05°C to +60°C						
(b) Relative humidity: 0-70% non-condensing						
<b>Warranty period</b> Two years from the date of commissioning.						
A warranty sticker is to be pasted on each imported item by the						
Supplier / OEM highlighting Name of Firm, Contract No and						
date, Description of Store and Warranty validity						
Training NotesSupplier will provide a set of handouts for						
training on operation and maintenance of the equipment						
PublicationsSupplier is to provide hard and soft copies						
(CD) of following manuals.						
(a) <b>Operational / Maintenance manual</b> : - Qty 01 with						
Equipment and additional Qty 02 for record purposes and						
should consist of following sections:-						
(1)Equipment Description /Operation:-						
(a)Specifications						
(b)Description						
(c)Operation						
(2)Servicing:-						
(a)Maintenance Schedule						
(b)Adjustment / test						
(c)Removal / Installation procedure						
(d)Tools Used						
(3) Trouble shooting guide						
(4) Cleaning requirements						
(b) <b>IPB</b> (Illustrated Parts Breakdown Manual) should have full						
parts description along with detailed diagrams (exploded view).						
(c) <b>Experimental manuals</b> which must contain the list and						
procedure of the experiments that equipment can perform.						
(d) Recorded video lectures of the equipment explaining use /						

	 	 	 - age <b>-</b>
functions / experiments.			
<ul> <li>Spares / Technical Support <ul> <li>(a) Supplier to have in-country spares / technical support and ensure spares and technical support / assistance for next 10 years</li> <li>(b) Comprehensive list of spares required for scheduled maintenance of Equipment is to be provided</li> <li>(c) Any software provided must have its license</li> <li>(d) Software upgrade support must be provided free of cost for 10 x years with renewed license at every upgrade</li> <li>(e) Supplier must also provide calibration service for at least 5 x years after commissioning</li> </ul> </li> </ul>			
<ul> <li>Additional Spare / Replaceable parts.</li> <li>(a) Replaceable spare / parts during scheduled inspections are to be identified and provided as per requirement along with equipment sufficient to cater five years consumption.</li> <li>(b) All specialized / standard tools required for inspection / repair / servicing must be supplied along with equipment.</li> </ul>			
Physical Inspection Criteria: 100% physical inspection of store will be carried out before commissioning of the equipment for following details:-(a)For physical damage, scratches and deformity.(b)Accessories /components as per contractual	<u> </u>		
specifications.			
(c) Technical Manuals (Operation manual, user			
guide, IPBs).			
(d) Quality certificate and calibration certificate by the			
(a) Quality continuate and calibration continuate by the			

		 	 	 Faye Z
OEM				
(e)	OEM certificate and verifiable documents by the			
	supplier that store has been procured from			
	certified source and is factory new and from latest			
	production.			
(f)	Brand name and country of origin.			
Commissie	0			
(a) by Of	Commissioning of the equipment will be carried out EM rep at his own cost and risk at designated place			
at NU	JTECH.			
(b) and	Any special requirement for installation, operation commissioning must be specified in the offer by			
the supplier	<b>o</b> 1 ,			
Training: ( NUTECH	01 week OEM operational/ maintenance training at			
	ent and Safety Measures: Any improvement and sures suggested by NUTECH during commissioning			
	resolved by the supplier / manufacturer at no extra			
cost.				
Liability of	••			
(a) is t	OEM certificate of authorized dealership Supplier o provide original OEM certificate of subject			
equi	pment bought directly from the manufacturer and			
bein (b)	g an authorized dealer. In case the equipment supplied is not compatible			
with	specifications, the supplier will be obliged to call his			
	esentatives at his own cost for consultation and ective action			
COIR				

		 i age 🗖
<ul> <li>Special Notes <ul> <li>(a) Additional requirements for the maintenance of equipment (if any) must be intimated by the supplier in technical offer.</li> <li>(b) Supplier must provide the list of organizations using same equipment in Pakistan (if any).</li> <li>(c) Equipment must be a standard product of OEM available at web address of OEM.</li> <li>(d) In case of premature failure of the equipment, OEM has to replace / rectify the item free of cost. Required transportation charges would be borne by the supplier.</li> </ul> </li> </ul>		
Firm Name		
Signature		

Si	gr	nat	ur	e	

Name\_\_\_\_\_

Designation\_

#### Page 26 of 44

#### Annex-B

#### TECHNICAL OFFER NUTECH / SCM / Civil Lab Eqpt - PSDP 2021 / TD-184

#### Fill in following essential parameters:-

- 1. Validity of Offer: \_\_\_\_\_Days (Should not be less than **120 days**)
- 2. Delivery period: \_\_\_\_\_Days (After placement of order)
- 3. Country of Origin:
- 4. Warranty Period:

#### <u>General</u>

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

#### Payment Terms (In continuation of IT Document clause 12)

In FOR Cases

20% advance payment against BG/CDR/Pay Order/DD

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 & CNIC:
OEM Email Id:	Firm Email Id:	Designation:

#### <u>Annex C</u>

## FINANCIAL OFFER NUTECH / SCM / Civil Lab Eqpt - PSDP 2021 / TD-184

Ser Item Name/Size	Specification	A/U	Qty Req	Unit Price PKR (Including Tax)	Total Price PKR (Including Tax)
1 Hydrostatics Bench & Fluid Properties	<ul> <li>Comprehensive experimental introduction to hydrostatics</li> <li>For the study of the most relevant properties and phenomena in the field of fluid statics.</li> <li>Transparent tank for observing the processes</li> <li>Experimental unit each: measuring the buoyancy force, investigation of the hydrostatic pressure in liquids, calibration for bourdon type manometer, measuring the surface tension, communicating vessels, capillarity etc.</li> <li>Pitot tube for determining the total pressure and tube for static pressure</li> <li>Major accessories</li> <li>Dead Weight Calibration Apparatus         <ul> <li>Pressure manometer: Bourdon type. 0 – 3 bar.</li> <li>Set of masses of different weights</li> <li>Piston of suitable diameter and weight</li> <li>Hydrostatic Pressure Apparatus</li> <li>Independent operating equipment</li> <li>Calculation of the pressure force exerted on both flat and curve surfaces</li> <li>Provision for variation of the angle of the surface on which the study is made</li> <li>Water Tank</li> <li>Set of masses of different weights</li> </ul> </li> </ul>	No	02		

			<u> </u>		 Page 20 01 44
		<ul> <li>Autonomous equipment</li> <li>Transparent manometer.</li> <li>Cylinder with flywheel to introduce pressure in the circuit</li> <li>Metacentric Height Apparatus</li> <li>Dynamometers</li> <li>Capillary tubes</li> <li>Falling Ball viscometers</li> </ul> Or Equivalent Ranges and values are approximate and close values will be acceptable Experimental Capabilities:- <ul> <li>Density Measurement</li> <li>Demonstration of Pascal's principle</li> <li>Study and demonstration of capillarity</li> <li>Viscosity coefficient calculations</li> <li>Measurement of pressure</li> <li>Calibration of pressure gauges</li> </ul>			
		<ul> <li>Archimedes` principle</li> <li>Stability of floating bodies</li> <li>Pressure, potential and kinetic energy</li> <li>Hydrostatic forces on submerged surfaces</li> <li>Metacentric height</li> <li>Bernoulli`s equation</li> <li>Surface tension</li> </ul>			
2	Fluid Friction in Pipe Apparatus (Losses in Pipe Network)	<ul> <li>Anodized aluminum frame and panels made of painted and stainless steel.</li> <li>This unit allows the detailed study of fluid friction pressure losses, which occur when a non-compressible fluid flows through pipes, valves, pipe fittings and flow metering devices.</li> <li>Sudden contraction and sudden enlargement, pipe bend, segment bend, pipe angle and ball valve as measurement objects</li> </ul>	No	01	

Minimum Five pipes of different diameter, material	
and roughness	
Minimum Four valves of different types	
Minimum 8 types of couplings	
Special couplings	
Elbows 90 ° short radius.	
Elbows 90 ° long radius.	
• 45 ° elbows.	
Sudden enlargement.	
Abrupt narrowing.	
Gradual widening.	
• Taper.	
Gate valve.	
Check valve.	
Valve seat.	
Ball valve.	
Diaphragm valve.	
Diaphragm.	
Venturi.	
Rotameter.	
• Filter.	
Annular chambers for precise measurement of	
pressure	
Thirty four pressure tapings with quick action	
connections.	
<ul> <li>Two water manometers, range: 0 – 1000 mm</li> </ul>	
approximate	
<ul> <li>Minimum Two Bourdon manometers, approximate</li> </ul>	
range: 0 – 2.5 bar. –	
<ul> <li>Flowmeter approximate range 600 – 6000 l/min</li> </ul>	
Or Equivalent	
Item must be compatible with existing Hydraulic	
bench FME 00 of Edibon Spain available in lab or	
any other Hydraulic Bench of renowned brands	

		Ranges and values are approximate and close values will be acceptable			
		<ul> <li>Experimental Capabilities of</li> <li>Determination of pressure loss due to friction in pipes made of different materials and with different diameters and roughness.</li> <li>Determination and comparison of pressure loss in different types of valves.</li> <li>Determination and comparison of pressure loss in different fittings.</li> <li>Measurement of the flow with the Venturi tube and the Pitot tube.</li> <li>Determination and comparison of the discharge coefficient determined in the Venturi tube and the Pitot tube</li> </ul>			
3	Speedy Moisture Meter	<ul> <li>Speedy moisture tester, 20 g cap. With carrying case and steel balls</li> <li>Vessel with gauge, digital scale, scoop, cleaning brush, cleaning cloth</li> <li>Moisture range 0-20 %</li> <li>Moisture tester reagent 500 gm with expiry limit of atleast 12 months at time of delivery</li> </ul>	No	2	
4	Portable BOD and COD Measuring Devices	<ul> <li>Digital BOD and COD measuring device with complete accessories</li> <li>With excellent range, accuracy and resolution</li> <li>COD Measuring Devices.</li> <li>Comprises of         <ul> <li>Portable COD Photometer</li> <li>COD Reactor (minimum 25 vial capacity)</li> <li>Variable Volume 0.2-2ml pipetter and tips</li> <li>50 COD Vials (0 – 1500 mg/l) (2 packs of 25)</li> <li>Cooling Rack for COD vials.</li> <li>Water Mercury Free COD Vials 0-150 mg/l 16</li> </ul> </li> </ul>	No	4	

#### Page **31** of **44**

Page 31 of 44
mm Diameter Pack of 25, 16 mm Water
mercury-free COD
○ Results displayed as O₂mg/l
o Water Mercury Free COD Vials 0-15,000 mg/l
Pack of 25, 16 mm Water mercury-free COD.
o Results displayed as O₂ mg/l
BOD Measurement System 6 Place
It includes:-
o complete unit with 6 sensor heads and control
unit with batteries
<ul> <li>Power supply unit incl. Y-cable for common</li> </ul>
power supply of stirring unit
o 1 x USB-cable
o 1 x remote control
○ Inductive stirring unit
○ At least 6 sample bottles
o At least 6 rubber gaskets
○ At least 6 magnetic stirring rods
o At least 1 overflow flask, 157 ml approximately
o At least 1 overflow flask, 428 ml
o At least 1 bottle, 50 ml potassium
○ At least hydroxide solution
o At least 1 bottle, 50 ml nitrification inhibitor
solution
Thermostatic Controlled BOD Incubator.
Thermostat-controlled incubator specially
designed for BOD determination at 20 °C
Continuous regulation of a temperature range of 2
- 40 °C for various fields of application
Temperature setting in increments of 0.1 °C
Equipped with
o four standard 230 Volt earthed sockets inside,
$\circ$ a low power consumption
○ LED display for temperature
Experimental Capabilities
To measure the, COD, BOD, TOC, SS and

#### Page **32** of **44**

					1 age <b>32</b> 01 <b>44</b>
		<ul> <li>nitrates and detergent measurements etc.</li> <li>To measure biochemical oxygen demand and chemical oxygen demand in wastewater</li> </ul>			
		Or Equivalent			
		Ranges and values are approximate and close values will be acceptable			
5	Dynamic Cone Penetrometer with Accessories	<ul> <li>Portable hand operated for the rapid in-situ measurement of the structural properties of existing road pavements</li> <li>As per ASTM D 6951</li> <li>Continuous measurements down to a depth of approximately 800 mm or, with extension shafts to a maximum depth of 2 m</li> <li>It includes :-         <ul> <li>Drop sliding hammer 8 kg weight, falling height of 575 mm</li> <li>Impact anvil with driving rod</li> <li>Two penetration rods with conical 60° point</li> <li>Anvil with driving rod</li> <li>Metal plate coupling for ruler</li> <li>Lower extension rod</li> <li>Upper extension rods</li> <li>Bar wrench, spanners, adhesives, steel ruler</li> <li>Wooden carrying box</li> </ul> </li> </ul>	No	1	
		Ranges and values are approximate and close values will be acceptable			
6	SPT Apparatus with Complete Accessories	<ul> <li>Split-barrel</li> <li>Sampler made of hardened machined steel (1- 3/8" id., 18" length)</li> <li>SPT adapter</li> <li>SPT cutting shoe</li> </ul>	No	1	

#### Page **33** of **44**

	1				Faye 33 01 44
		<ul> <li>A pair of SPT split spoons</li> <li>SPT nose cone</li> <li>SPT steel catcher</li> <li>sampling rod (set of 20 steel pipe,1.5 meter length)</li> <li>Drive weight assembly consisting hammer (steel, 63.5 kg weight)</li> <li>guide rod (steel, 76.2 cm drop height)</li> <li>Anvil (machined steel)</li> <li>Tripod stand 5 meter long each leg is made of two parts.</li> <li>Vertical guide (machined steel), rope (3/4" x 15 meter),</li> <li>Pipe wrench (set of two, 24" length),</li> <li>Pulley (20 cm diameter).</li> </ul> Or Equivalent <i>Ranges and values are approximate and close</i>			
7	Lab Plate Load Test Machine with DAQ System	<ul> <li>values will be acceptable</li> <li>As per ASTM D1194, ASTM D1195, ASTM D1196</li> <li>Plate bearing test apparatus with 200kNcapacity or better and complete hydraulic assembly</li> <li>Electronic configuration with high resolution load cell and displacement transducer</li> <li>Hydraulic assembly and Pressure Transducer</li> <li>Connected to DATALOG version with rigid carrying case.</li> <li>DATALOG 8, 8 channels dataloger</li> <li>Battery operated with rigid carrying case</li> <li>Displacement transducer 50 mm (x3)</li> <li>Pressure transducer</li> <li>Adjustable support for displacement gauge (x3)</li> <li>Plate 160mm (6") dia. x 25mm (1")</li> <li>Plate 300mm (12") dia x 25mm (1")</li> </ul>	No	1	

#### Page **34** of **44**

	1				Faye 34 01 44
		<ul> <li>Plate 456mm (18") dia x 25mm (1")</li> <li>Plate 608mm (24") dia x 25mm (1")</li> <li>Plate 760mm (30") dia x 25mm (1")</li> <li>Datum bar 2.5 m long</li> <li>Extension kit to extend the datumbar from 2.5 m to 5.5 m long</li> <li>Wooden box for loading plates</li> <li>Carrying case, trolley type, suitable for plate bearing hydraulic assembly</li> <li>Supplied complete with calibration certificate.</li> <li>Wooden carrying case for datum bar</li> <li>3 universal coupling pliers for transducers</li> </ul> Or Equivalent Ranges and values are approximate and close values will be acceptable			
8	Soil Lathe/Trimmer and Extruder for Soil Samples	<ul> <li>Designed to reduce by trimming the diameter of a soil sample using a wire saw</li> <li>Soil Lathe can trim and Extrude samples from 35 mm to 100 mm diameter</li> <li>Open Wire Saw</li> <li>Wires pack of 12</li> </ul>	No	1	
9	Double Ring Infiltrometer	<ul> <li>Confirming to ASTM D3385 standard</li> <li>For conducting infiltration of water into soils in the field.</li> <li>Two infiltrometer rings (12 in and 24 in) x 20" high</li> <li>Driving cap,</li> <li>Two mariotte tubes (3,000 ml and 10,000 ml) for providing a constant head of water for the test</li> <li>Two splash guards, 30 ft of 3/8 in clear tubing</li> </ul>	No	1	

Page **35** of **44** 

	1				Faye 35 01 44
		<ul> <li>Infiltrometer field set</li> <li>A 1/2"-thick aluminum driving plate with centering pins,</li> <li>Or Equivalent</li> </ul>			
		Ranges and values are approximate and close values will be acceptable			
10	Vacuum Desiccator for Soil Suspension	<ul> <li>Complete with perforated porcelainplate (mini. Dia 300 mm),</li> <li>Safety cage for vacuum desiccators</li> <li>Silica gel box 1000 g or more</li> <li>Or Equivalent</li> <li>Ranges and values are approximate and close</li> </ul>	No	2	
	Coarse Aggregate Sieve Set	values will be acceptableA set of 300 mm diameter sieves with the following aperture sizes:75.00 mm (3 in),37.50 mm (1½ in),9.50 mm (3/8 in),6.30 mm (1/4 in),4.75 mm (No.4),2.00 mm (No.10),425 microns (No.40), (No.100) ,75 microns (No.200),Iid, pan and a nylon brush.Or EquivalentRanges and values are approximate and close values will be acceptable	No	1	
12	Light Weight Deflectometer with DAQ System	<ul> <li>Lightweight deflectometer for determining bearing capacity and compaction quality of soils and non-cohesive subbases.</li> <li>Magnetic base plate for proper positioning of</li> </ul>	No	1	

					 Page 36 01 44
		<ul> <li>Ioading unit</li> <li>The machine includes: <ul> <li>Loading mechanism with bubble level</li> <li>Load plate with acceleration transducer</li> <li>Electronic settlement measuring instrument</li> <li>USB Interface for thermal printer and PCconnection</li> <li>Thermal Printer with 5 paper rolls</li> <li>PC software</li> <li>Battery operated</li> <li>Power pack charger for vehicle (12/24V) andadapter for socket (100-240V / 50-60Hz / 1Ph),</li> <li>Transport cart for easier on-site transport between the measuring points</li> <li>Magnetic base plate for proper positioning of loading unit</li> <li>Carrying case for secure transport of the Light weight deflectometer</li> </ul> </li> <li>Or Equivalent</li> </ul>			
		values will be acceptable			
13	Skid Resistance Apparatus with Complete Accessories	<ul> <li>Confirming to EN 1097-8, EN 1338, EN 1341, EN 1342, EN 13036-4, EN 1436, BS 7976, ASTM E303 standards.</li> <li>Additional incorporated scale for tests on polished stone value specimens,</li> <li>Rule, made of plexi-glass, for sliding length verification, thermometer range –10 to +110 °C for surface temperature measurement, stool, wash bottle, bristle and tool set for machine use,</li> <li>carrying case and calibration certificate.</li> <li>Mounted rubber slider, TRL rubber, 76 mm width for site use (road surface), complete with conformity certificate.</li> </ul>	No	1	

#### Page **37** of **44**

					1	1 490 01 01 44
		<ul> <li>Mounted rubber slider, TRL rubber, 32 mm width for Polished Stone Value tests (laboratory), complete with conformity certificate.</li> <li>Mounted rubber slider, 4S rubber, 76 mm width (ceramics, marbles, paving tiles, sidewalk surface) complete with conformity certificate. Standards: EN 13036-4, BS 7976.</li> <li>Metal base plate for polished stone value tests in laboratory and for tests on natural stones and concrete block pavers.</li> <li>Clamping device for Polished Stone Value tests in laboratory.</li> <li>Clamping device for tests on natural stones (EN 1341, 1342); for concrete block pavers (EN 1338) and skidding tests on wooden floor (EN 1339).</li> <li>Pink lapping film (10 sheets) for skid calibration.</li> <li>Or Equivalent</li> <li>Ranges and values are approximate and close</li> </ul>				
14	Concrete Flow Table Test Apparatus with Accessories	<ul> <li>values will be acceptable</li> <li>Motorized Flow Table with Counter</li> <li>Top table square surface of 700x700 mm (minimum)</li> <li>Percent Flow Caliper</li> </ul>	No	2		
		Ranges and values are approximate and close values will be acceptable <u>Total</u>				

# Page **38** of **44**

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 he 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.

#### SPECIMEN FOR "ADVANCE PAYMENT BANK GUARANTEE"

Guarantee No:	_Date	Amount:	Valid upto:
In Favour of:			
National University o	of Technology (NUTI	ECH), IJP Road, I-12	2, Islamabad
Subject: <u>Advance F</u>	Payment Bank Gua	rantee	
Contract No:	DATED		

Dear Sir,

1. We [Name of Guarantor] understand that you have entered into contract with <u>M/S [Name of Firm]</u> (hereinafter called Our Client), for provision of [Name of Stores]. And as per the above mentioned Contract, you are liable to pay to Our Client an amount of [Amount of Guarantee] in advance, which shall be released against a Bank Guarantee. 2. Bank & seller firm shall inform your office regarding termination of the validity of this bank Guarantee one clear month before the actual expiry date of this Bank Guarantee.

3. Now, we hereby irrevocably undertake to immediately make payment on to your orders, merely upon receipt of your first written notice, an amount not exceeding [Amount of Guarantee] that may be claimed by you at your own discretion without it being necessary for you to prove or even assert to the Bank any default whatsoever of Our Client under the Contract.

4. Claims against this Guarantee shall be lodged on us through written request/s on your proper Letter Head. Unless claims are not presented on or before the Validity Date, all rights and benefits under this guarantee shall be forfeited and we shall be released from all claims, demands or liabilities of any kind whatsoever.

5. This Guarantee shall remain in force up to the above mentioned Validity Date which can however, be extended upon request of Our Client.

Yours faithfully,

Signature:\_\_\_\_\_

Name:\_\_\_\_\_

Designation:

Bank Stamp:

# "SPECIMEN FOR BANK GUARANTEE AGAINST PERFORMANCE/WARRANTY

## GUARANTEE"

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 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:-

- 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 been 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 CERTIFICATE"

(To be provided on stamp paper) Dated:

Contract No:

Validity \_\_\_\_\_ years from the date of final acceptance of the Stores. 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.

1. 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, reprovisioning and reinstallation of such defective Stores or their parts shall also be borne by us.

2. The Warranty shall remain valid for a period of \_\_\_\_\_ years from the date of final acceptance of the Stores.

Signature & Stamp	
Name & CNIC	
Designation:	
Date:	

\*\*Sellers warranty must be provided by the Seller (firm) on Rs 100 stamp paper along with bank guarantee/CDR/Pay Order without changing a word. BG with additional clauses will be rejected.

#### <u>CHECK LIST</u>

## (This checked list must be attached with your technical offer, duly filled and

#### Signed by authorized signatory)

Tender No\_\_\_\_\_

Date\_\_\_\_\_

1	Tender Processing	a. Tender processing fee ref no_	_	
	Fee	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	No	
	Signatory			
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			No
11	Certified that there is no Deviation from IT conditions/YesNo			No
	there is deviation from IT condition as per fol details			
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