UNIVERSITY OF ENGINEERING AND TECHNOLOGY MARDAN KHYBER PAKHTUNKHWA



STANDARD BIDDING DOCUMENTS

FOR

SUPPLY OF LAB EQUIPMENT FOR CIVIL ENGINEERING DEPARTMENT UNDER THE PROJECT TITLED "ESTABLISHMENT AND UPGRADING OF CORE ENGINEERING DEPARTMENTS AT UET MARDAN"

PROCUREMENT REF. NO. 17/HEC/2022

Last Date/Time for Submission: 4th March, 2022 at 11:00 AM

Bid Opening Date/Time: 4th March, at 11:30 AM

Venue: Conference room, UET Mardan

Email: po@uetmardan.edu.pk

Price: 2500/-

TABLE OF CONTENTS

1.	Invitation for Bids	2
2.	Instructions to Bidders	3
	A. General Terms	3
	B. Preparation of Technical Bid	3
	C. Preparation of Financial Bid	6
	D. Sealing, Submission and Opening of Bid	6
	E. Bids Evaluation Criteria	8
	F. Award of Final Contract	. 12
3.	Bid Data Sheet	. 15
4.	Evaluation Criteria	. 17
5.	Technical Specification of Equipment	.19
6.	Special Terms and Conditions	. 43
7.	Returnable Bidding Forms/Checklist	. 45
	Form A: Bidder Submission Form	. 46
	Form B: Joint Venture/Consurtium/Association Infomration Form	. 47
	FormC: Bidder Information Form	. 48
	Form D: Qualification Form	. 50
	Form E: Technical Bid Proposal Form	. 52
	Form F: Specifications Compliance Form	. 55
	Form G: Price Schedule Form	. 56
	Annexure – I: Integrity Pact	. 57
	Annexure – II: Draft Contract Sample	. 58

1. Invitation for Bids

Date:	
Bid Reference No.:	

- 1. The University of Engineering and Technology Mardan, KPK has received an allocation from the Public Fund in PKR/Foreign Currency towards the cost of the project titled "Establishment and Upgrading of Core Engineering Departments at UET Mardan". It is intended that part of the proceeds of this allocated fund will be applied to eligible payments under the contract for supply and installation of lab equipment/apparatus.
- 2. The University of Engineering and Technology Mardan, KPK, invites sealed bids from eligible firms or company registered with relevant govt. authority. A foreign bidder is entitled to bid only in a joint venture with a Pakistani supplier/agent in accordance with the provisions of PEC bye-laws. Bidders may obtain further information from, inspect at and acquire the Bidding Documents from the Purchase Section, UET Mardan from 10.00 am to 04.00 pm.
- 3. A complete set of Bidding Documents may be purchased by an interested bidder on submission of a written application to the above office and upon payment of a non-refundable fee of Rs.2500.
- 4. The provisions in the Instructions to Bidders and in the General Conditions of Contract are the provisions of the Khyber Pakhtunkhwa Public Procurement Act and its Rules made thereunder which also conform to the requirements of the World Bank Standard Bidding Documents: Procurement of Goods for National Competitive Bidding, Pakistan, Part One.
- 5. All bids must be accompanied by a Bid Security equal to 2% of the Bid amount and must be delivered to Procurement Officer, Purchase Section, UET Mardan from 10.00 am to 04.00 pm on or before March 4, 2022, 11:00 am. Bids will be opened at 11:30 am on the same day, in the presence of bidders' representatives who choose to attend at the same address. The Bid security amount shall not be disclosed to any person.

2. Instructions to Bidders

3.	General Terms	
1	Introduction	 1.1 Bidders shall adhere to all the terms and conditions of the requirements of instructions to bidders (ITB), including any amendments made from time to time as KPPRA rules/regulation. This ITB will be governed under "Single Stage, two Envelope Procedure" of Khyber Pakhtunkhwa Public Procurement Rules, 2014, as amended from time to time and instructions of the Government of Khyber Pakhtunkhwa received during the completion of the project. 1.2 Any Bid submitted will be regarded as an offer by the Bidder and does not constitute or imply the acceptance of the Bid by UET Mardan. The
		Institute is under no obligation to award a contract to any Bidder as a result of this ITB.
		1.3 UET Mardan reserves the right to cancel the procurement process at any stage without any liability of any kind for Institute, as per KPPRA rules.
2	Fraud & Corruption	2.1 UET Mardan strictly enforces a policy of zero tolerance on proscribed practices, including fraud, corruption, collusion, unethical or unprofessional practices, and obstruction of institute vendors and requires all bidders/ vendors observe the highest standard of ethics during the procurement process and contract implementation.
3	Eligibility Criteria	 3.1 Bidder shall not be suspended, debarred, or otherwise identified as ineligible by any Government/ Semi-government/ or any other international Organization. Bidders are therefore required to disclose to UET Mardan whether they are subject to any sanction or temporary suspension imposed by these organizations. 3.2 It is the Bidder's responsibility to ensure that its employees, subcontractors, service providers, suppliers and/ or their employees meet the eligibility requirements as established by UET Mardan.
4	General Terms	 4.1 The Bidder shall be registered with Sales Tax, Income Tax Department as well as with relevant tax Authorities. 4.2 The Bidder shall have not been blacklisted by any Government/ semi Government organization. 4.3 There shall be no litigation against the bidder/ firm.
4.	Preparation of Techn	ical Bid
5	Brief profile of Bidder firm/ Company	5.1 Bidder shall provide company introduction, type of business, offices & services in Pakistan, NTN & GST registration number with copy of NTN & GST certificates, professional staff (administrative & technical),

		verifiable office addresses, Telephone & Cell No., E-mail address for Contacts etc.
6	Detail of Experience	6.1 Bidder shall provide list of contracts in-hand along with the name of organization, complete address, year of contract, contract value, date of contract award and shall provide contract completion certificate/Satisfactory Report for all those contract which they have already completed/performed.
7	Detail of Items & Specifications	7.1 Bidder shall provide detail of items, brands, country of origin with complete specification being offered, without mentioning prices, on company letter head (duly signed and stamped beneath by the bidder).
8	Reputation & Reliability of Brand, Manufacturer & Country of Origin of Products	8.1 The Bidder shall provide supported brochures of quoted items for better understanding of brand, make and specification, country of origin and reputation of brand & manufacturer in relevant business market.
9	Bidder's Corporate Status or Affiliation of Bidder with Products manufacturer	 9.1 Bidder specify and mention clearly on bid whether the bidder firm is; a. Manufacturer b. Business partner of manufacturer c. Sole distributor of manufacturer d. Authorized distributor/agent/reseller/supplier e. Any other affiliation (Provide certificate/letter issued from manufacturer as supporting document to certify affiliation with manufacturer)
10	Technical Resources & Services Support	10.1 Mention in detail the in-house resources, facilities and technical support available from the bidder for installation, up-gradation, configuration, commissioning and after sales services of equipment.
11	Warranty/Guarantee Terms	11.1 The bidder shall offer 01-year warranty/guarantee standard warranty terms of manufacturer (after sales & service)
12	Project Implementation (Maximum 12-16 weeks)	12.1 Delivery, installation, commissioning, testing & execution, operation and training should be completed within 12-16 weeks .
13	Cost of Preparation of Bid	13.1 The Bidder shall bear all costs related to the preparation and/ or submission of the Bid, regardless of whether its Bid is selected or not.
14	Documents Comprising the Bid	14.1 The Bid shall comprise of the following documents and related forms, details of which are provided in the Bid Data Sheet (BDS). All pages of the Bid shall be signed, stamped and properly paginated.

		a) Returnable Forms shall be properly filled in Ink or Typed. Forms filled
		in using a pencil shall not be considered and substantiate the
		annulment of the Bid Proposal.
		b) Documents establishing the eligibility and qualifications of the
		bidder;
		c) Bid covering Technical Specifications in detail, and covering Price
		Schedule;
		d) Bid Security, as mentioned BDS;
		e) Any attachments and/ or appendices to the Bid.
15	Technical Bid Format	5.1 The Bidder is required to submit a bid using the Standard Forms and
	and Content	templates provided in the ITB.
		5.2 When applicable and required, the bidder shall describe necessary
		training program available for the maintenance and operation of the
		equipment offered as well as cost to the Institute. Unless otherwise
		specified, such training as well as training materials shall be provided
		in the language of the Bid as specified in the BDS.
		5.3 When applicable and required, the bidder shall certify the availability of
		spare parts for a period of at least five (5) years from date of delivery,
		or as otherwise specified in this ITB.
16	Price Schedule	16.1The Price Schedule shall be prepared using the Forms provided in the
		ITB and taking into consideration the requirements in the ITB.
		16.2 Any requirement described in this ITB but not priced in the Price
		Schedule, shall be assumed to have been included in the prices of other
		activities or items, as well as in the final total price.
17	Bid Security	17.1 A Bid Security shall be provided in the amount and form indicated in
		the BDS. The Bid Security shall be valid for the duration of BDS.
		17.2 The Bid Security will be forfeited by institute, and the Bid rejected,
		in the event of any, or combination, of the following conditions:
		a) If the Bidder withdraws its offer during the period of the Bid
		Validity specified in the BDS, or;
		b) In the event the successful Bidder fails:
		, and the second
		i. to sign the Contract after institute has issued an award letter;
		or
		ii. to furnish the Performance Security, insurances, or other
		documents that institute may require as a condition precedent
		to the affectivity of the contract that may be awarded to the
		Bidder.
		a) The Ridder shall submit an efficient an eterral manage with the
		c) The Bidder shall submit an affidavit on stamp paper with the technical bid that "the requisite Bid Security of 2% of the total
		bid has been placed separately in the sealed envelope of financial
	l	Dia has been placed separately in the sedied envelope of initialicial

		bid". In Affidavit the amount of Bid Security shall not be disclosed by any mean. In case of failure of submission of an affidavit for		
		bid security with the technical bid, or disclosing the bid amount indirectly, the bid shall be rejected by the Purchaser		
18	Bid Validity	18.1 90 days from the date of opening of Financial bid.		
5.	Preparation of Finan	icial Bid		
20	Bid Prices	20.1 Each offered item to be entered separately (with unit & total cost) inclusive of cost of equipment, air freight (Islamabad), Sea Freight (Karachi) and transportation charges upto UET Mardan. Delivery of equipment, installation, testing, commissioning, operational and training etc. (as and where applicable) will also be responsibility of the bidder/supplier. The bid must be made on company letter head either by foreign principal/ manufacturer of quoted items or the authorized agent/dealer/ bidder in Pakistan (duly signed and stamped beneath by the bidder firm/company or authorized person). (Price for equipment shall be quoted as C&F (Karachi/Islamabad/Peshawar).		
21	Bid Validity	21.1 90 Days from the date of opening financial tenders.		
22	Amount of Earnest Money	22.1 2% of total bid amount		
23	Form of Earnest	23.1 CDR from the scheduled bank in favor of the Treasurer, UET		
	Money	Mardan, shall be attached by the bidder.		
6.	Sealing, Submission			
24	Bid Proposal Submission	24.1 The bidder shall submit a duly signed and numbered all pages of the Complete bid in an envelope sealed and marked in accordance with KPPRA rule.		
		24.2 The envelope should contain all the returnable forms (A – G) along with technical specifications meeting or exceeding the requirements as stipulated in this ITB, and supporting documents in accordance with requirements in the BDS.		
		24.3 The bid security as referred in BDS must be placed in the bid envelope. An affidavit on stamp paper be placed in the technical bid stating that "the requisite Bid Security of 2% of the total bid has been placed separately in the sealed envelope of financial bid". 2% bid security in the shape of CDR be placed in the financial quotation.		
		 24.4 Bid can be delivered either personally, or by courier as specified in the BDS. 24.5 The bid shall be signed by the bidder or person(s) duly authorized to Commit the Bidder. The authorization shall be communicated through a document evidencing such authorization issued by the legal representative of the bidding entity, or a power of attorney accompanying the bid. There should be no errors and/ or over- 		

		writings. Corrections (if any) should be made clearly and initialed with
		dates.
		24.6 Bidders must be aware that the mere act of submission of a bid, in and
		of itself, implies that the bidder fully accepts the general contract
		terms and conditions.
		24.7 Hard copy submission by courier or hand delivery allowed or specified in the BDS shall be governed as follows:
		a) The signed bid shall be marked "Original", and its copies marked
		"Copy" as appropriate. The number of copies is indicated in the BDS.
		All copies shall be made from the signed original only. If there are
		discrepancies between the original and the copies, the original shall
		prevail.
		b) The bid proposals must be sealed and submitted in an envelope,
		which shall:
		i. Bear the name of the Bidder;
		ii. Be addressed to UET Mardan as specified in the BDS; and
		iii. Bear a warning not to open before the time and date for bid
		opening as specified in the BDS.
		iv. Technical and financial bids be sealed in separate envelopes
		bearing names as "Technical Bid" and "Financial Bid".
		If the envelope with the bid is not sealed and marked as required, the
		institute shall assume no responsibility for the misplacement, loss, or
		premature opening of the bid.
25	Deadline for	25.1 Complete bids must be received by UET, Mardan in the manner, and
23	Submission of Bids	no later than the date and time, specified in the BDS. The institute shall
	and Late Bids	only recognize the actual date and time that the bid was received by
	and Late blus	UET, Mardan.
		25.2 UET, Mardan shall not consider any bid that is received after the
		deadline for the submission of bids.
26	Withdrawal,	26.1 A Bidder may withdraw, substitute or modify its bid after it has been
	Substitution, and	submitted at any time prior to the deadline for submission.
	Modification of Bids	26.2 A bidder may withdraw, substitute or modify its bid by sending a
		written notice to UET, Mardan, duly signed by an authorized
		representative, including a power of attorney. The corresponding
		substitution or modification of the bid, must accompany the
		respective written notice. All notices must be submitted in the same
		manner as specified for submission of bids, by clearly marking them
		as "WITHDRAWAL" "SUBSTITUTION," or "MODIFICATION".
		26.3 Bids requested to be withdrawn shall be returned unopened to the
		bidders, except if the bid is withdrawn after the bid has been opened.
27	Bid Submission	27.1 Bids shall be submitted at the venue as mentioned in the BDS.
	Venue	
<u> </u>		

28	Bid Opening Date	28.1 Bids shall be opened on the date and venue as mentioned in the BDS.		
20	and Venue	20.1 Dublic appropriate of hide shall be used a often being around by		
29	Bid Announcement		ublic announcement of bids shall be made after being opened by	
			uthorized officials of UET, Mardan in presence of participating idders or their deputed representative who like to be present at the	
				ive who like to be present at the
_		1	ignated date, time & venue.	
	Bids Evaluation Crite			
30	Confidentiality		-	on, evaluation, and comparison of
				tract award, shall not be disclosed
			idders, even after publication of the	
		•	·	UET, Mardan in the examination,
			·	s or contract award decisions may,
			sequently be subject to consequer	e rejection of its Bid and may
31	Preliminary			s to determine whether they are
31	Examination			um documentary requirements,
	Lxammation		·	properly signed, and whether the
				other indicators that may be used
				the right to reject any bid at this
				nined preliminary as per following
			eck list: -	mica premimary as per ronowing
		S.No	Description	Compliance (yes/No)
			-	Compliance (yes, its)
		01	Covering Letter/Application	
		02	(on the letter head of the firm)	
		02	Receipt of tender fee	
			attached	
		03	Profile of the Firm: Complete	
			Introduction+ Type of Business	
			+ Offices & Services in Pakistan,	
			Professional Staff	
			(Administrative & Technical) +	
			Verifiable Office addresses,	
			Telephone & Cell No., E-mail	
			address for Contacts.	
		04	Proof of Active Taxpayer.	
		05	Sales Tax Registration	
		06	National/Income Tax Certificate	
		07	Professional Tax Certificate, if any	

		(08	Earnest Money @2% of the quoted bid value along with financial bid. (The bidder shall submit an affidavit on stamp paper with the technical bid that the "requisite bid security of 2% of the total bid value attached in the sealed envelope of financial bid" (Mandatory) The documents dully signed and stamped(Mandatory) Affidavits on Judicial stamp paper attested by Oath Commissioner that, the Service Providing Firm has never been blacklisted by private, Govt.,		
				Semi Govt. and Autonomous Body) (Mandatory)		
			11	To furnish Power of attorney for the authorized person		
		-	12	Financial Proposal as per Annexure-III		
		-	13	Agreement (For successful bidder only) as per Annexure-IV		
		res	ponsiv	minary examination will be conducted on a refer to basis. Only bids which have been rated ary examination of bids shall be considered for the same of	"respon	sive" in the
32	Technical Bid	32.	1 Tech	nnical bids will be scrutinized, examined and ev	aluated	on
	Evaluation		follo	wing setout evaluation standard:		
		S #	M	andatory Requirement		Scale of Evaluation
		1		chnical Compliance: Provide Technical Competet (Form F)	oliance	30 Marks
		2		erature in support of specifications		05 Marks
		3	Co ma an Th	ountry of Origin ountry of origin. 20 Marks for USA, UK and Jap arks for Canada d EU, 15 Marks for Turkey, 12 Marks for Malays ailand and 10 marks for any other country inc cal.	sia and luding	20 Marks
		4		puted universities experience where par uipment's delivered (attach letter of performa	ticular nce)	10 Marks
		5		parantee / Warranty (Minimum 1 year or more)	·	03 Marks

		6	Provision of af	ter sales services	02 Marks		
			TOTAL 70 Marks				
	* Minimum 60 percer	nt m	marks (42) in technical for qualification. Lowest will get highest (30) marks .				
33	Financial Bid	33.	3.1 After evaluation/marking of bidders in technical evaluation process,				
	Evaluation			of only technically qualified bidders will be	•		
			1	utinized for following necessary paramete	rs.		
		S #	Parameter	Mandatory Requirement			
		Bid Prices & Each offered item to be & total cost preferably) is air freight (Islamabad) at transportation charges taxes of shipment, instally operational training et will also be responsible However, installation operational training etc. also be responsibility of must be made on comforeign principal/manufation authorized agent/dealer (duly signed and stamfirm/company or author (Quoting prices in C&F)		Each offered item to be entered separat & total cost preferably) inclusive of cost air freight (Islamabad) and sea freight transportation charges up to UET, Ma taxes of shipment, installation/testing/co/operational training etc. (as and where will also be responsibility of the bid However, installation/testing/ co operational training etc. (as and where a also be responsibility of the bidder/sup must be made on company letter he foreign principal/manufacturer of quoted authorized agent/dealer/ bidder in Pak (duly signed and stamped beneath by firm/company or authorized person). (Quoting prices in C&F are mandator quotations will be rejected).	clusive of cost of equipment and sea freight (Karachi) and up to UET, Mardan. duties/ation/testing/commissioning. (as and where applicable) ity of the bidder/supplier. (testing/ commissioning/as and where applicable) will the bidder/supplier. The bid cany letter head either by cturer of quoted items or the bidder in Pakistan himself ed beneath by the bidder ted person). are mandatory. Otherwise		
		2	Bid Validity	90 Days from the date of opening financi	ial tenders.		
		3	Amount of Earnest money	2% of total bid amount			
		4	Form of Earnest	CDR from the scheduled bank in favor	•		
				NTN & GST Registration Certificates shall by the bidder.			
The	After initial scrutiny of above factors of financial bids, comparative statement of prices will be pre The lowest bid will get highest marks which are 30 and subsequently higher bids will get proport less marks.						
34	Due diligence	 30.1 UET, Mardan reserves the right to undertake a due dilige exercise, aimed at determining to its satisfaction, the validity of information provided by the bidder. Such exercise shall be f documented and may include, but need not be limited to, all or combination of the following: a) Verification of accuracy, correctness and authenticity information provided by the Bidder; 			validity of the shall be fully to, all or any		

		,		
		 b) Validation of extent of compliance to the ITB requirements and evaluation criteria based on what has so far been found by the evaluation team; 		
		 c) Inquiry and reference checking with Government entities with jurisdiction on the bidder, or with previous clients, or any other entity that may have done business with the bidder; 		
		 d) Inquiry and reference checking with previous clients on the performance on on-going or completed contracts, including physical inspections of previous works, as deemed necessary; 		
		e) Physical inspection of the bidder's offices, branches or other places where business transpires, with or without notice to the Bidder;		
		 f) Other means that institute may deem appropriate, at any stage within the selection process, prior to declaring the bidder as qualified. 		
35	Clarification of Bids	 35.1 To assist in the examination, evaluation and comparison of bids UET, Mardan may, at its discretion, request any bidder for a clarification of its bid. 35.2 UET, Mardan request for clarification and the response shall be in writing and no change in the prices or substance of the bid shall be sought, offered, or permitted, except to provide clarification, and 		
		confirm the correction of any arithmetic errors discovered by institute in the evaluation of the bids in accordance with the ITB. 35.3 Any unsolicited clarification submitted by a bidder in respect to its bid, which is not a response to a request by UET, Mardan, may not be		
		considered during the review and evaluation of the bids.		
36	Responsiveness of Bid	36.1 UET, Mardan determination of a bid's responsiveness will be based on the contents of the bid itself. A substantially responsive bid is one that conforms to all the terms, conditions, specifications and other requirements of the ITB without material deviation, reservation, or omission.		
		36.2 If a bid is not substantially responsive, it may be rejected by UET, Mardan, and may not subsequently be made responsive by the bidder by correction of the material deviation, reservation, or omission.		
37	Right to Accept, Reject, Any or All Bids	37.1 UET, Mardan reserves the right to accept or reject any proposal in response to the ITB, to render any or all of the proposals as non-responsive, and to reject all proposals in response to the ITB at any time prior to award of contract, while assigning the reason(s) thereof.		

38	Nonconformities, Reparable Errors and Omissions	 38.1 Provided that a bid is substantially responsive, UET, Mardan may waive any nonconformities or omissions in the bid that, in the opinion of UET, Mardan, do not constitute a material deviation. 38.2 UET, Mardan may request the bidder to submit the necessary information or documentation, within a reasonable period, to rectify nonmaterial nonconformities or omissions in the bid related to documentation requirements. Such omission shall not be related to any aspect of the price. Failure of the bidder to comply with the request may result in the rejection of its bid. 38.3 For the Price Schedule that are submitted UET, Mardan shall check and correct arithmetical errors as follows: a) if there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of UET, Mardan there is an obvious misplacement of the decimal point in the unit price; in which case, the line item total as quoted shall govern and the unit price shall be corrected; b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail.
		38.4 If the bidder does not accept the correction of errors made by UET, Mardan, its bid shall be rejected.
39	Bidder Grievance	1. UET, Mardan grievance readdress procedure provides an opportunity for appeal to those persons or firms not awarded a contract through a competitive procurement process. In the event that a bidder believes that it was not treated fairly, the bidder may lodge a complaint to the Bidder Grievance Readdress Committee, UET, Mardan.
	Award of Final Contr	
40	Evaluation	 40.1 UET, Mardan will conduct the evaluation solely on the basis of response to this tender received from the firms. 40.2 Evaluation shall be undertaken in the following steps: a) Preliminary Examination including Technical Specifications and
41	Integrity Pact	41.1 Bidders will also be required to submit a signed Integrity Pact on a stamp paper of appropriate value as part of their response. The text of Integrity Pact is available at Annexure-I.

42	Contract Signing	42.1 After the approval of any Work Award, a Contract Agreement on the
74	Contract Signing	stamp paper of appropriate value, shall be executed by UET, Mardan,
		with selected bidder within 15 days from the date of issuance of LoI (Letter of Intent)/ Work Order.
		42.2 Failure to signing of Contract Agreement by the selected bidder firm
		with UET, Mardan within the stipulated time may constitute sufficient
		grounds for the annulment of the award, and forfeiture of the bid
		security, if any, and on which event, UET, Mardan may award the
		contract to the second highest rated bidder or call for new proposals.
43	Right to Vary	43.1 At the time of award of Contract, UET, Mardan reserves the right to
43	quantity at the Time	vary the quantity of goods without any change in the unit price or
	of Award	other terms and conditions.
44	Sample draft	44.1 A sample draft contract to be signed, containing applicable general
' '	Contract	terms and conditions can be found at Annexure – II.
45	Performance	45.1 A performance security shall be provided in the amount specified in
	Security	BDS, well prior to the contract signing by both parties. Where a
	,	performance security is required, the receipt of the performance
		security by UET, Mardan shall be a condition for rendering the contract
		effective. The amount of performance security, as a percentage of the
		Contract Price, shall be 10% of the total contract value which shall be
		retained by the Purchaser for the warranty period.
46	Bank Guarantee for	46.1 No Payment will be released in advance.
	Advanced Payment	
47	Liquidated Damages	47.1 UET, Mardan shall apply liquidated damages for the damages and/ or
		risks caused to UET, Mardan resulting from the contractor's delays
		or breach of its obligations as per contract.
		a) In case of delay, the Procurement Committee, UET, Mardan reserves
		the right to impose a penalty not exceeding 10% of the total amount
		of the contract Value at the rate as referred in the sample contract at
		Annexure – II.
		b) If the contractor fails to complete work as per UET, Mardan
		requirement, the Vice Chancellor on the recommendation of
		Procurement Committee, UET, Mardan reserves the right to reject
		contract, altogether or impose a penalty not exceeding 50% of the
		total amount of the contract.
		c) If the contractor fails to provide supplies/ services as per UET, Mardan
		requirements, UET, Mardan may forfeit his earnest money as well as
		Performance Security, and the work will be done at the risk and cost
		of contractor.
		d) In case of any dispute, matter will be referred to Vice Chancellor UET,
		Mardan, whose decision will be binding on both the parties.

48	Force Majeure	48.1 "Force Majeure" means an event which is beyond the reasonable
		control of a party and which makes a party's performance of its
		obligations under the Purchase Order/ Work Order/ Contract
		impossible or so impractical as to be considered impossible under the
		circumstances, and includes, but is not limited to, War, Riots, Storm,
		Flood or other industrial actions (except where such strikes, Lockouts
		or other industrial issues are within the power of the party Invoking
		Force Majeure), confiscation or any other action by Government
		· · · · · · · · · · · · · · · · · · ·
		agencies. In all disputes between the parties as to matters arising
		pursuant to this Purchase Order/ Work Order/ Contract, the dispute
		will be referred to Vice Chancellor, UET, Mardan whose decision will
		be final.
	Delivery of Goods	49.1 Contractor will be required to deliver the goods as per the Delivery
		Schedule referred in BDS without claiming any additional cost to the
		UET, Mardan at the designated site(s) and quantities as referred in
		the contract.
50	Payment Provisions	50.1 Payment will be made only upon UET, Mardan acceptance of the goods
		and/ or services performed. The terms of payment shall be within
		thirty (30) days, after receipt of invoice, and certification of acceptance
		of goods and/or services issued by the relevant authority, UET,
		Mardan. Payment will be affected by bank transfer in the currency of
		the contract.
		50.2 The contractor shall provide all necessary supporting documents
		along with GST invoice, delivery challan and any other relevant
		documents as required by UET, Mardan.
		documents as required by OET, Maruan.

3. Bid Data Sheet

The following data for the goods and/ or services to be procured shall complement, supplement, or amend the provisions in the Invitation to bid. In the case of a conflict between the Instructions to Bidders, the Bid Data Sheet, and other annexures or references attached to the Bid Data Sheet, the provisions in the Bid Data Sheet shall prevail.

BDS No.	Data	Specific Instructions / Requirements
1	Name of Procuring Agency	University of Engineering and Technology, Mardan, KPK
2	Loan or credit	N/A
3	Name of Project.	Establishment and Upgrading of Core Engineering Departments at UET Mardan
4	Name of Contract.	Supply of Labs equipment for Civil engineering department under the project titled "Establishment and Upgrading of Core Engineering Departments at UET, Mardan"
5	Procuring Agency's address	University of Engineering and Technology, Mardan, Charsadda Road, Mardan
6	Language of the bid.	English
7	Submitting Bids for Parts or subparts of the Schedule of Requirements (partial bids)	The Purchase Committee shall consider the bids item-wise.
8	Bid Validity Period	90 days
9	Bid Security/ Earnest Money (Refundable)	Required in the amount of: 2% of the bid value of each item (separately) against which the bidder is participating. Acceptable Forms of Bid Security: Denominated in Pak Rupees duly issued by a Pakistani Bank or branch of a Foreign Bank, in the form of CDR in favor of the Treasurer, UET, Mardan. An affidavit, without disclosing the amount, stating that "The requisite Bid Security of 2% of the total bid has been placed separately in the sealed envelope of financial bid" on stamp paper shall be placed in the technical proposal. Whereas, 2% bid security in the shape of CDR shall be placed in the financial proposal.
10	Liquidated Damages	Will be imposed as percentage of contract price per day of delay: as referred in Draft Contract Sample in Annexure – II.
11	Performance Security	Within 20-days of issuance of Purchase Order and well prior to the signing of contract, as 10% of the contract value for the duration of Warranty period as referred.
12	Currency of Bid	Relevant Currency

-		
13	Deadline for submitting	5 days before the submission deadline.
	requests for clarifications/	
	questions	
14	Contact Details for	Procurement Officer, UET, Mardan
	submitting clarifications/	
	questions	
15	Manner of Disseminating	Procurement Officer, UET, Mardan
	Supplemental Information	
	to the ITB and responses/	
	clarifications to queries	
16	Deadline for Submission	March 4, 2021 at 11:00 AM
17	Number of Set(s) of Bid	Bid Proposal(s)
		- One (01) Original
		- One (01) Copy
		Note: Bidders are required to prepare and submit the
		Proposal(s) against the individual item.
18	Allowable Manner of	Courier/By hand delivery.
	Submitting Bids	
19	Bid Submission Address	Procurement Officer, Purchase Section, UET, Mardan:
20	Electronic submission	Not Allowed
	(email) requirements	
21	Date, time and venue for	Date and Time: 5 th March, 2022, at 11:30 am
	opening of bid	Venue: Conference Room, UET Mardan
22	Evaluation Method	Eligible and qualified bids of bids as per technical and
		financial evaluation criteria as stipulated in this ITB.
23	Evaluation Method for the	As per the technical and financial evaluation mentioned in
	Award of Contract	ITB 33 & 34, respectively.
24	Expected date for	As per supply Order
	commencement of	
	Contract	
25	Maximum expected	As per Supply Order
	duration of Contract	
26	UET, Mardan will award	Bidder on individual item base.
	the contract to:	
27	Type and Contract Terms	General Terms and Conditions for Contracts for Goods and/
	and conditions that will	or Services as per Sample at Annexure – II.
	apply	
28	Delivery, Installation and	As per Supply Order
	Testing/Training	

4. Evaluation Criteria

Preliminary Examination Criteria

Bids will be examined to determine whether they are complete and submitted in accordance with ITB requirements as per below criteria on a Yes/ No basis:

- Appropriate signatures
- Power of Attorney
- Minimum Bid documents provided
- Bid Validity
- Bid Security submitted as per ITB requirements with compliant validity period

Minimum Eligibility Criteria

Eligibility will be evaluated on a Pass/ Fail basis as per ITB laid down criteria. If the Bid is submitted as a Joint Venture, there should be no more than two (02) companies in the Joint Venture and each company should meet the minimum criteria, unless otherwise specified.

Eligi	bility		
S #	Subject	Criteria	Reference/Returnable
			Form(s)
1.	Bidder's status	Participate as:	Form B: Joint Venture/
		Individual company	consortium/
		JV/Consortium	association
			Information Form
2.	Legal Status	Bidder is a legally registered entity in Pakistan. Bidder	Form C: Bidder
		is/ are also registered with FBR for Income Tax and	Information Form
		Sales Tax	
3.	Location of	Bidder (Lead Bidder) has either declared office(s) in	Form C: Bidder
	Offices	Islamabad/ Rawalpindi/ Peshawar. Alternately, if the	Information Form
		Contract is awarded, the Bidder may establish office	
		in either of these cities (Optional).	
4.	Principal's	Bidder or at least one member of JV/ Consortium/	Form C: Bidder
	Authorization	Association must be Authorized Partner/ Reseller/	Information Form
		Dealer for the supply and services of quoted goods/	
		services.	
5.	Company in	Bidder (Lead Bidder) is in operation for at least Five	Form C: Bidder
	Operation	(05) years.	Information Form
6.	Financial	Average annual turnover over last 3 years no less	Form C: Bidder
	Strength	than Rs. 10 million (For JV/ Consortium/ Association,	Information Form
		all Parties cumulatively should meet requirement).	
7.	Relevant	Minimum No. of Projects of similar nature, value, and	Form C: Bidder
	Experience	complexity in last 3 years Two (02) projects (For	Information Form

		JV/Consortium/Association, all Parties cumulatively	
		should meet requirement).	
8.	Eligibility	Bidder(s) is not suspended, nor debarred, nor	Form A: Bid
		otherwise identified as ineligible by any	Submission Form
		Government/ Semi-government/ Autonomous	
		organization in Pakistan, in accordance with ITB	
		clause. Non-Blacklisting certificate will be required.	
9.	Bankruptcy	Bidder(s) has not declared bankruptcy, is not	Form A: Bid
		involved in bankruptcy or receivership proceedings,	Submission Form
		and there is no judgment or pending legal action	
		against the vendor that could impair its operations in	
		the foreseeable future.	

5. Technical Specification of Equipment

1.Hydraulics Lab

1.	Misc.	Lab tools	1
		Including LVDTs (10, 25, 50 mm travel), vernier calipers (digital and manual), strain gauges (10, 20, 30, 60, 120 mm base length), 8 channel data-logger, tool kit, glass beakers (25, 50, 100, 250, 600 and 1000 ml), cylindrical measures with stopper (25, 50, 100, 250, 500 and 1000 ml), wash bottles (250 and 500 ml), sand bath, 7 liters. Stop watches (05 No.)	

2. Public Health ENGINEERING LAB

1 a. Portable Waterproof Multi-Meter

Shock-proof, water-tight casing, Automatic or manual temperature compensation.

Measurements:

- pH
- Conductivity
- Ion concentration
- Oxidation Reduction Potential
- Dissolved Oxygen
- Total Dissolved Solids
- Resistivity
- Salinity
- Atmospheric Pressure
- Temperature

Ranges x resolution, accuracy

pH 0.00 to 14.00 x 0.01, ±0.02

mV (rel. mV) -600.0 to +600.0 x 0.1, ±0.5

ORP (mV) -2000.0 to +2000.0 x 0.1, ±1.0

Oxygen %0.0 to 500.0 x 0.1, (up to 300.0%: $\pm1.5\%$ of reading or $\pm1\%$, whichever is greater, $\pm3\%$ of reading: rest of range)

Oxygen ppm (mg/l) 0.00 to 50.00 x 0.01, (up to 30.0ppm:±1.5% of reading or ±0.1ppm, whichever is greater, ±3% of reading: rest of range)

Barometric pressure, mm Hg 450 to 850 x 0.1, ±3mm Hg within ±15°C from the temperature during calibration

Barometric pressure, mbar 600.0 to 1133.2 x 0.1, ±3mbar within ±15°C from the temperature during calibration

Conductivity, EC 0.01μ S to $400mS \times 0.1$ (manual or autoranging), $\pm 1\%$ of reading or $\pm 1\mu$ S, whichever is greater

TDS 1mg/l to 400g/l x 0.1 to 1(manual or autoranging), \pm 1% of reading or \pm 1 μ S, whichever is greater

Salinity, PSU.0.00 to 70.00×0.01 , $\pm 2\%$ of reading or ± 0.01 PSU, whichever is greater

Seawater o 0.0 to 50.0 ot, o0, o15

20

5

	Specific resistance M Ω cm-1 0 to 1.0000 x 0.0001 (autoranging: Ω cm-1 , k Ω cm-1, M Ω cm-1)	
	Temperature (and ATC), °C -5.00 to +55.00 x 0.01, ±0.15	
	Temperature (and ATC), 23.00 to +131.00 x 0.01, ±0.27	
	Logging 45,000 records with one second to three hour intervals selectable	
	Power supply 4 x 1.5V AA batteries	
2	Battery Dry Alkaline Manganese	10
	a. (5) 45mAh (0.374inch) b. (5) 150mAh (0.457inch)	
3	a. <u>VIS spectral photometer with RFID* technology</u> Data Logger: 5000 data points (result, date, time, sample-ID, user-ID)	2
	Display: 7 inch WVGA color touch	
	Enclosure Rating: IP20 with closed lid	
	Interfaces: USB type A (2), USB type B, Ethernet, RFID module	
	Manual Languages :en, es,	
	Operating Conditions: 10 - 40 °C, max. 80% relative humidity (non-condensing)	
	Operating Mode: Transmittance (%), absorbance and concentration (wavelength, time)	
	Optical System: Reference beam, spectral	
	Photometric Accuracy: 5 mAbs @ 0.0 - 0.5 Abs <1% @ 0.5 - 2.0 Abs @ 546 nm	
	Photometric Linearity: 0.005 - 2 Abs ≤ 0.01 at > 2 Abs with neutral glass at 546 nm	
	Photometric Measuring Range: ± 3 Abs	
	Power Requirements: 100 - 240 V; 50/60 Hz	
	Preprogrammed Methods: > 240	
	Region: US	
	Sample Cell Compatibility: Rectangular: 10, 20, 30, 50 mm, 1inch; round: 13 mm, 16 mm, 1 inch 100 mm rectangular cell with additional adapter	
	Scanning Speed: 900 nm/min (in 1 nm steps)	
	Source Lamp: Tungsten (visible range), deuterium (UV range)	
	<u>I</u>	1

Specific Technology: RFID for easy method update, sample ID

and Certificate of Analysis

Spectral Bandwidth: 2 nm

Storage Conditions:- 25 to 60 °C / max. 80% relative humidity

(non-condensing)

Stray Light: KI-solution at 220 nm < 3.3 Abs/ < 0.05%

User Interface Languages: bg, cn, cz, da, en, es, fr, gr, hr, hu, it,

jp, kr, nl, pl, pt, ro, ru, sl, sl, sv, tr

User Programs: 200

Wavelength Accuracy: ± 1 nm

Wavelength Range: 190 - 1100 nm

Wavelength Reproducibility: < 0.1 nm

Wavelength Resolution: 0.1 nm

Wavelength Selection: Automatic, based on method selection

Weight:11 kg

What's included:

1 x Power Cord (US, EU)

1x Universal-Adapter

1x Dust Cover

Matched pair of 1 inch glass sample cells

Printed multilingual basic user manual (en, fr, es, pt, zh, jp, ko)

Supplied with cell holder for 10mm diameter Lange AccuVac® 10mm or 1 inch square cuvettes or 1 inch diameter tubes, operating manual and a.c. adapter requiring a 100-240V 50/60Hz single phase supply.

SulfaVer 4 Reagent Powder Pillows, pk/100

NitraVer® 5 Nitrate Reagent AccuVac TM Amplus, pk/25

Ferrozine Iron Reagent Sol, pk/100

Total Chromium Reagent Set

DPD Total Chlorine Reagent Powder Pillows, pk/100

Fluoride Reagent, AccuVac®, pk/25

PhosVer 3 Reagent Pillows pk/100

COD Reagent Vials, (0.1.500 mg/L). pk/25

4	a. Turbidity Meter Accuracy:	5
	Absorbance: ±0.01 Abs from 0 - 0.5 Abs at 455 nm, ±2% Abs from 0.5 - 1 Abs at 455 nm Transmittance: 2% T from 10 - 100% T at 455 nm	
	Ratio on: ±2% of reading plus 0.01 NTU from 0 - 1000 NTU, ±5% of reading from 1000 - 4000 NTU ±10 % of reading from 4000 - 10000 NTU Ratio off: ±2% of reading plus 0.01 NTU from 0 - 40 NTU	
	Air purge: Dry nitrogen or instrument grade air (ANSI MC 11.1, 1975) 0.05 L/s at 69 kPa (10 psig); 138 kPa (20 psig) max Hose barb connection for 1/8-inch tubing	
	Certifications: CE, KC, RCM	
	Communication: USB	
	Compliance: EPA	
	Data logging: 2000 total logs, includes reading log, verification log and calibration log	
	Dimensions (H x W x D):153 mm x 395 mm x 305 mm	
	Display: 17.8 mm colour touch screen	
	Interface: 2 USB-A ports for USB flash drive, external printer, keyboard and barcode scanner	
	Light source: Tungsten filament lamp	
	Measurement method: Nephelometric	
	Measuring range: NTU (Ratio on): 0 - 10000 auto decimal NTU (Ratio off): 0 - 40 EBC (Ratio on): 0 - 2450 auto decimal EBC (Ratio off): 0 - 9.8 Absorbance (auto range): 0 - 1.0 Transmittance (%): 1.0 - 100 Degree (mg /L): 1 - 100	
	Model: EPA standard	
	Operating temperature range:0 - 40 °C	
	Power requirements (Amps):3.4 A	

Power requirements (Hz):50/60 Hz

Power requirements (Voltage):100 - 240 V AC

Range:0 - 10000 NTU

Reading modes: Single, continuous, Rapidly Settling Turbidity,

signal averaging on or off, ratio on or off

Region: Global

Regulatory: Meets EPA Method 180.1

Repeatability: ±1% of reading or 0.01 NTU, whichever is greater

(under reference conditions)

Response time: Signal averaging off: 6.8 seconds / Signal averaging on: 14 seconds (when 10 measurements are used to

calculate the average)

Sample cell compatibility: Round cells 95 x 25 mm (3.74 x 1 in.)

borosilicate glass with rubber-lined screw caps

Note: Smaller sample cells (less than 25 mm) can be used when

a cell adapter is used.

Sample requirements: 25 mm sample cell: 20 mL minimum

0 to 70 °C (32 to 158 °F)

Source lamp: Tungsten Lamp

Stabilization time: Ratio on: 30 minutes after start-up

Ratio off: 60 minutes after start-up

Storage conditions: - 20 - 60 °C

Units: NTU, EBC, Abs (absorbance), %T (% transmittance) and

mg/L

Weight: 3.0 kg

Turbidimeter, silicone oil, oiling cloth, USEPA filter assembly, 1-inch sample cells (30 mL) with caps (6x), Gelex secondary turbidity standardization kit, Stablcal calibration kit, power supply, power cord, dust cover

5 **BOD-Measurement-System**

2

The sensor system is a 6-sample system which allows precise measurement of BOD, based on the manometric principle. Manometric respirometers relate oxygen uptake to the change in pressure caused by oxygen consumption, while maintaining a constant volume. Thanks to modern, integral pressure sensors, it

	is no longer necessary to use mercury for pressure measurement.	
	Large, graphical display, USB and SD card ports and optional Bluetooth® wireless output using accessory dongle	
	System comprises: - Complete with 6 sensors, control unit and batteries	
	- magnetic, inductive stirring system with power supply, 6 sample bottles	
	- 6 adapter caps and 6 stirring bars, 1 volumetric flask, 157ml	
	- 1 volumetric flask, 248ml, 1 x 50 ml bottle potassium hydroxide solution	
	- 1 x 50 ml bottle nitrification inhibitor, 1 user manual	
	Measuring principle: manometric, electronic pressure sensor	
	Ranges: 0 to 40, 0 to 80, 0 to 200, 0 to 400, 0 to 800, 0 to 2000, 0 to 4000mg/l O2	
	User-selectable, between 1 and 28 days. Measurement period: Power supply: 3x1.5V alkaline batteries, size "C" (Sensor)	
6	Millipore Bacteriological Analysis kit	5
	Test kit contains accessories for	
	a. Biological activity reaction testSlime forming bacteria test	
	Sulfate reducing bacteria test	
	Iron related bacteria test	
	 Heterotrophic aerobic bacteria test b. Coliform, e-coli screening test 	
	 Total coliform/ e-coliform bacteria screening test 	
7	 Total coliform bacteria screening test Microscope with Eyepieces: 	2
	Research stereo microscopic system	
	Advanced Model	
	Observation Method Fluorescence (Blue/Green Excitations)	
	Fluorescence (Ultraviolet Excitations)	
	Simple Polarized Light √	

Brightfield

 \checkmark

Darkfield

 \checkmark

Oblique

Zoom Ratio (16.4)

Magnification Indication (0.7, 0.8, 1, 1.25, 1.6, 2, 2.5, 3.2, 4, 5, 6.3, 8, 10, 11.5)

Galilean Optical System

Fluorescence illuminator: Hg Lamp, Xenon Lamp, Light Guide

Illumination

Load Capacity: 0-10.0kg/ 2.7-15.0kg/ 8.0-25.0kg

Corse and fine focus available

Coarse Handle Stroke:80 mm, 120 mm

Coarse Handle Stroke per Rotation: 36.8 mm

Fine Handle Stroke per Rotation: 0.77 mm

Standard Type Revolving Nosepiece

Observation tubes(trinocular, tilting trinocular, ergonomic long

tilting trinocular)

Tube inclination: 5-45 degree

angle: 30 degree

Interpupillary Distance Adjustment: 51–76 mm,52–76 mm,57–80

mm

Dimensions: 268 (W) × 386 (D) × 413 (H) mm (Standard Set

Configuration)

Operating environment: Amb. Temperature : (0-40 degree C)

Max. Relative Humidity: 30-90 %

Four Eyepieces: 22*, 16*,12.5*, 7* with diopter adjustment and

reticle

Objectives: WD (141mm, 70.5mm, 81mm, 60mm, 30mm, 20mm)

Zoom variable magnification system with parallel optical axis

Zoom drive system: Horizontal handle

Click-stop for various zoom positions incorporated(Manual)

Ultra-Wide Zoom Ratio (16.4:1) and High-Resolution

Advanced Fluorescence Observations

	10x & 16x Magnification; 10x, 25x 40x working distance 10.8, 4,2 2.8 mm	
8	Water Bath Capacity: 26 liters, Temperature 99°C MAX.	2
	Ambient + 5°C TO 99°C, Stainless Steel Tank, 26 Liters, with Polycarbonate Lid and base tray. For 230V 50HZ A.C. Lid for Polycarbonate Bath	
9	a. Incubator Temperature 100°C, Capacity: 200 liters Stainless Steel. FAN CON. Solid Door	1
	Power Supply 220-240V 50HZ Fan Convection, 4 Shelves, with Digital Controller and safety thermostat.	
	b. Incubator	
	Cooled Incubator, Solid Door, 140 Litre, +2 To +40°c. 885 X 600 X 600mm H X W X D. 3 Shelves. 4 Internal Sockets. For 230V 50Hz Supplies.	1
	 Temperature range: +2 to +40°C x 0.1°C Temperature fluctuation ±1°C (stirred 500ml water at centre of cabinet). For BOD (T = 20°C) ±0.5°C R134a refrigerant Backlit LED temperature display Fan-assisted cooling solid door models 	•
10	Built-in internal sockets (Europlug, Schuko-type) for operating instruments inside the cabinet.	2
10	C.O.D Apparatus: Reactor Kit Safety shield etc. Vario Photometer - Colorimeter for COD	2
	Scroll memory	
	Automatic switch-off	
	Real-Time-Clock and date	
	Calibration mode indicator	
	Optics LEDs, interference filters (IF) and photo sensor in transparent sample chamber. Depending	
	on the version, up to 3 different interference filters are used. Wavelength specifications of	
	interference filters: 430 nm $\Delta\lambda$ = 5 nm, 530 nm $\Delta\lambda$ = 5 nm, 560 nm $\Delta\lambda$ = 5 nm, 610 nm $\Delta\lambda$ = 6 nm	
	Wavelength Accuracy ± 1 nm	

Photometric Range -2500 - 2500 mAbs

Photometric Accuracy 3 % FS (T = $20 \,^{\circ}\text{C} - 25 \,^{\circ}\text{C}$)

Operation Foil keypad

Display backlit LCD (on keypress)

Suitable Vials Round Cuvettes 24 mm

Calibration Factory calibration and user calibration.

Reset to factory calibration possible.

Interfaces Infrared

Internal Storage internal ring memory for 16 data sets

Power Supply 4 batteries (AA)

Battery Life Time approx. 53 hours

Auto – OFF Yes

Clock Real Time Clock and Date

Thermoreactor RD 125 for 24 cuvette tests, 230V/50-60Hz

Three Temperature Ranges: The reactor can operate optionally with 100°C, 120°C or 150°C – depending in each case on the sample to be prepared.

Three Different Reaction Times: Three different reaction times are available with 30, 60 and 120 minutes. Your advantage: Afterwards the unit switched itself off automatically.

Large Cuvette Shaft: Place up to 24 16-mm-round cuvettes in the RD 125.

WS810-43 Tube tests, mercury-free, 16mm diameter, with screw cap, containing COD reagent to test 0 to 150mg/l, low range, pack of 25.

WS810-46 Cod Tube Tests For Ws810-10 Hg-Free Mr 0 To 1500mg/L Pk.25

WS810-51 Tube tests, mercury-free, 16mm diameter, with screw cap, containing COD reagent to test 0 to 15000mg/l, high range, pack of 25.

11 | Portable Top Loading Autoclave

15 Liters, Top Loading, Stainless Steel, Electrically Heated, 230-250V A.C.

Suitable for sterilizing both instruments and glassware

1

Stainless steel construction, All models operate at 121°C

Capacities 15 liters, All models include

- adjustable pressure relief safety valve
- pressure and temperature dial gauges
- air release cock and drain syphon
- resettable thermal cut-out (electric models only)

The drain tube removes steam and water and the partial vacuum created after sterilization is used to dry the contents of the chamber. Electric models have built-in electric heaters (a single 2kW element). ST1528 and ST3028 models feature electronic temperature control. Alternative 'Vario' automatic cycle control models are available with a choice of three pre-set and one operator programmable cycles including adjustable temperature maximum 121°C and time from 1 to 99 minutes. Additionally a free-steaming facility with self-sealing airlock allows unattended operation. All electric models are supplied for use on 230-250V a.c. single phase supplies.

Lid closures. All models have a quick access twist locking lid mechanism with nylon handled wingnuts and separate nylon lid handle.

Autoclave Basket, Stainless Steel Wire Mesh With Lifting Handles, 240mm Dia. X 220mm Deep.

12 **Distilled water**

Water Still, 4 Litres/Hour Single Output, With Bench/Wall Mounting Stand, 240V 50/60Hz A.C

Output 4 litres/hour* single distilled

Long life metal sheathed heater

Safety thermostat protects still in the event of water supply failure

Pyrex glass boiler and double coil condenser

Plumbing connections via screwthread connectors

Can be descaled without dismantling

Bench or wall mounting

Water consumption 60 litres/hour

Distillate quality:

Conductivity 3 to 4µS/cm

1

	pH 5 to 6.5	
	Pyrogen free (output must be tested)	
13	Analytical Balances Electronic	
	Electronic balance, 220g x 0.0001g, with external calibration, RS232/USB outputs and a.c. adapter for 100-240V 50Hz single phase supplies.	
	Large, backlit LCD readout	
	User selectable units g, mg, oz, dwt, ct, gn, troy oz. (precision models over 520g capacity can additionally weigh in kg and lb units)	
	Application modes include: parts counting, % weighing and full range tare	
	Four-button operation with simple user interface	
	RS232 data output port	
	Front visible levelling bubble	
	Weigh-below hook for density/specific gravity determination	
	Selectable environmental filter settings.	
14	Oven	
	Natural Convection, 32 Litres. +20°c To +300°c. With Single display Controller, Timer And 1 Stainless Steel Shelf. For Use With 230V 50/60Hz Supplies.	
	display Controller, Timer And 1 Stainless Steel Shelf. For Use	
	display Controller, Timer And 1 Stainless Steel Shelf. For Use With 230V 50/60Hz Supplies. Stainless steel interior and exterior sides (external rear panel-	
	display Controller, Timer And 1 Stainless Steel Shelf. For Use With 230V 50/60Hz Supplies. Stainless steel interior and exterior sides (external rear panel-zinc coated steel)	
	display Controller, Timer And 1 Stainless Steel Shelf. For Use With 230V 50/60Hz Supplies. Stainless steel interior and exterior sides (external rear panelzinc coated steel) Natural convection	
	display Controller, Timer And 1 Stainless Steel Shelf. For Use With 230V 50/60Hz Supplies. Stainless steel interior and exterior sides (external rear panelzinc coated steel) Natural convection With Single DISPLAY control COCKPIT controller	
	display Controller, Timer And 1 Stainless Steel Shelf. For Use With 230V 50/60Hz Supplies. Stainless steel interior and exterior sides (external rear panelzinc coated steel) Natural convection With Single DISPLAY control COCKPIT controller Heaters located in ribs on all four sides provide uniform heating Digital process timer, adjustable between 1 minute and 99 days,	
	display Controller, Timer And 1 Stainless Steel Shelf. For Use With 230V 50/60Hz Supplies. Stainless steel interior and exterior sides (external rear panelzinc coated steel) Natural convection With Single DISPLAY control COCKPIT controller Heaters located in ribs on all four sides provide uniform heating Digital process timer, adjustable between 1 minute and 99 days, 23 hours	
	display Controller, Timer And 1 Stainless Steel Shelf. For Use With 230V 50/60Hz Supplies. Stainless steel interior and exterior sides (external rear panelzinc coated steel) Natural convection With Single DISPLAY control COCKPIT controller Heaters located in ribs on all four sides provide uniform heating Digital process timer, adjustable between 1 minute and 99 days, 23 hours 10 year data logger SetpointWAIT function ensures that the process time is not initiated until the set temperature is reached at all measuring	

15 Miscellaneous glassware

- a. Set of 4 Thermometers, THERMOMETER SPIRIT FILLED -10 TO 110°CX0.5°C 76MM IMM.
- b. Set of 3 Iron stands, TRIPOD STAND 200X150MM CAST IRON CIRCULAR TOP
- c. Set of 3 Latex tubes
- d. Set of 3 Condenser tubes, GRAHAM COIL CONDENSER 24/29 SOCKET AND CONE 310MM
- e. Set of 3 Horn tubes
- f. Set of 3 Conical flasks, CONICAL PYREX GLASS RIMLESS TUBE NECK 500ML
- g. Set of 3 Beaker brush, BEAKER BRUSH 400MM LONG BRISTLE HEAD WOOD HANDLE PK/10
- h. Set of 3 Plastic beaker BEAKER KARTELL PP LOW WITH GRAD'S AND SPOUT 1000ML
- i. 1 Portable Toolbox along with all necessary accessories for PHE lab maintenance
- j. Set of 3 Funnels, CONICAL FUNNEL PLAIN PYREX SHORT STEM 100X105MM L X TOP DIA
- k. Set of 3 Water stop clip
- I. Set of 3 BUNSEN BURNER WITH AIR REGUL. FOR LPG 11MM OD
- m. Brushes /Bottle Brushes, BRUSH NYLON HEAD ON WIRE HANDLE FOR 500ML BOTTLES PK 10
- n. 5 sets of Conical Plastic POM joint clips
- o. Gas Washing Bottles, DRESCHEL GAS WASHING BOTTLE 500ML 24/29 SOCKETX245MM HIGH
- p. Set of 5 Glass Stirring Rods, STIRRING ROD GLASS ONE END FLAT PADDLE OTHER PLAIN 300MM
- q. Set of 5 Glass Stopper with Hollow tip, STOPPER PYREX GLASS INTERCHANGEABLE HOLLOW BLOWN 10/13 CONE
- r. Set of 5 Joint Clips, Metals, SPHERICAL JOINT CLIP S35
- s. Set of 5 Nessler Glass tubes cylinders, NESSLER CYLINDER DB420 GLASS 250MM 2/pk
- t. Set of 5 Plastic PP Hexagonal stopper

- u. Set of 5 PP Screw thread
- v. Set of 5 Plastic hose straight nipple
- w. Set of 5 Glass weighing scoops, WEIGHING SCOOP PYREX GLASS 10ML
- x. Set of 5 Glass Scintillation vials with crew caps, SCINTILLATION VIALS GLASS, UREA SCREW CAP NON STERILE PK 500
- y. Set of 5 Rubber crucible holders
- z. 3 sets of Volumetric burettes with stand and holders (10 ml, BURETTE PYREX CLASS AS WKS CERT. PTFE S/COCK 10X0.02ML

25 ml, BURETTE PYREX CLASS AS WKS CERT. PTFE S/COCK 25X0.10ML

50 ml), BURETTE PYREX CLASS AS WKS CERT. PTFE S/COCK 50X0.10ML

aa. 3 Lab Adjustable MICROPIPETTOR NEWTON SCI. DIG. VAR. VOL. 0.5-10ML X 0.02ML

10-100ul,

100-1000ul)

bb. Glass Erlenmeyer flasks set (50ml,

100ml, ERLENMEYER FLASK PYREX GLASS N/NECK GRADUATED 100ML, 10/pk

250 ml), ERLENMEYER FLASK PYREX GLASS N/NECK GRADUATED 250ML, 10/pk

cc. CYLINDER PYREX CL.B GRAD. WITH SPOUT AND GLASS FOOT 10ML

CYLINDER PYREX CL.B GRAD. WITH SPOUT AND GLASS FOOT 25ML

CYLINDER PYREX CL.B GRAD. WITH SPOUT AND GLASS FOOT 50ML

CYLINDER PYREX CL.B GRAD. WITH SPOUT AND GLASS FOOT 100ML

CYLINDER PYREX CL.B GRAD. WITH SPOUT AND GLASS FOOT 250ML

dd. TEST TUBES BORO. GLASS LIGHT WALL RIMMED 150X18MM PK 100 Cork Stoppers STOPPERS RUBBER BS2775 SOLID NO 5, PK 50

TEST TUBE BRUSH NYLON COTTON TIP FOR 19-25MM TUBES, PK 10

ee. BEAKER PYREX GLASS LOW FORM GRADUATED WITH SPOUT 50ML, 10/pk

BEAKER PYREX GLASS LOW FORM GRADUATED WITH SPOUT 100ML, 10/pk

BEAKER, PYREX GLASS, LOW FORM, GRADUATED WITH SPOUT, 250ML, 10/pk

BEAKER PYREX GLASS LOW FORM GRADUATED WITH SPOUT 600ML, 10/pk

ff. 6 mm transparent plastic PVC food grade flexible pipe 8 m

gg. 8 mm transparent plastic PVC food grade flexible pipe 8 m

hh. 25 mm PVC flexible transparent pipe 10 m

38 m PVC flexible transparent pipe 10 m jj. 5 sets of Conical Plastic POM joint clips

kk. Gas Washing Bottles

Set of 5 Glass Stirring Rods

Set of 5 Glass Stopper with Hollow tip

Set of 5 Joint Clips, Metals

Set of 5 Nessler Glass tubes cylinders

Set of 5 Plastic PP Hexagonal stopper

Set of 5 PP Screw thread

Set of 5 Plastic hose straight nipple

Set of 5 Glass weighing scoops 10 ml

Set of 5 Glass Scintillation vials with crew caps

Set of 5 Rubber crucible holders

3 sets of Volumetric burettes with stand and holders (10 ml, 25 ml, 50 ml)

3 Lab Adjustable Micropipette (0.5-10ul, 10-100ul, 100-1000ul)

Glass Erlenmeyer flasks set (50ml, 150ml, 250 ml)

Glass graduated cylinders (10ml, 25ml, 50ml, 100ml, 250ml)

	20 pcs 35ml Glass Test Tubes 20 x 150mm with Cork Stoppers and Brush						
	Graduated Beakers (50ml,100ml, 250ml, 500ml)						
	Set of 3 Imhof Cone with Stands Set of 2 Desiccator						
	1 Magnetic Stirrer with heater						
	1 Microbiological Kit Set of 10 China dish						
	Set of 5	5 Wash bottle					
16	BOD Bottle Clear Glass with Hollow Glass Peg Stopper 500ml						
17	_	nt Bottle Blass with 29/32 PP Stopper 1 liter			10		
18	Portable water Proof pH meter Digital pH meter with analytical sensors for conductivity, pH, ion concentration and dissolved oxygen, touchscreen display, USB port for data transfer, computer connection, standard solution for calibration, software for data analysis,						
19	Miscellaneous chemicals						
	S/No	Items	A/U	Qty			
	21.01	SulfVer 4 Reagent Powder Pillows, pk/100	Nos	01			
	24.02						
	21.02	NitraVer® 5 Nitrate Reagent AccuVac TM Amplus, pk/25	u	01			
	21.02	_	" Pillows	01 90			
		TM Amplus, pk/25					
	21.03	TM Amplus, pk/25 Ferrozine Iron Reagent Sol, pk/100	Pillows	90			
	21.03 21.04	TM Amplus, pk/25 Ferrozine Iron Reagent Sol, pk/100 Total Chromium Reagent Set DPD Total Chlorine Reagent Powder	Pillows "	90 80			
	21.03 21.04 21.05	TM Amplus, pk/25 Ferrozine Iron Reagent Sol, pk/100 Total Chromium Reagent Set DPD Total Chlorine Reagent Powder Pillows, pk/100	Pillows "	90 80 85			
	21.03 21.04 21.05 21.06	TM Amplus, pk/25 Ferrozine Iron Reagent Sol, pk/100 Total Chromium Reagent Set DPD Total Chlorine Reagent Powder Pillows, pk/100 Fluoride Reagent, AccuVac®, pk/25	Pillows " "	90 80 85			
	21.03 21.04 21.05 21.06 21.07	TM Amplus, pk/25 Ferrozine Iron Reagent Sol, pk/100 Total Chromium Reagent Set DPD Total Chlorine Reagent Powder Pillows, pk/100 Fluoride Reagent, AccuVac®, pk/25 PhosVer 3 Reagent Pillows pk/100 COD Reagent Vials, (0.1.500 mg/L).	Pillows " " "	90 80 85 100 100			

21.11	Manganese Sulfate	u	800	
21.12	Starch Solution	u	500	
21.13	Std Potassium dichromate , 0.025N	u	800	
21.14	Standard EDTA (0.01M)	u	600	
21.15	Buffer solution	MI	500	
21.16	EBT Indicator	Grms	100	
21.17	Sodium Hydroxide (0.1N)	u	1500	
21.18	Hydroxynaphthol blue indicator	u	20	
21.19	Les Endo Agar Medium	u	600	
21.20	Standard silver Nitrate Titrant (0.0141N)	u	20	
21.21	Standard sodium Chloride (0.0141N)	u	700	
21.22	Sodium Hydroxide suspension	Lit	02	
21.23	Sulfuric Acid (1.0N)	Lit	02	
21.24	Magnesium chloride	Kg	2	
21.25	Ammonium chloride	Grms	400	
21.26	Phenolphthalein indicator	u	50	
21.27	Ammonium hydroxide	Ltr	0.5	
21.28	Brilliant green bile broth	Grm	1000	
21.29	Methanol	Ltr	02	
21.30	2 Chlro phenol	MI	500	
21.31	Ammonium sulphate	Grms	700	
21.32	Di-Potassium hydrogen phosphate	u	800	
21.33	Potassium Di hydrogen phosphate	u	70	
21.34	Standard sulfuric acid solution (0.02N)	Lit	02	
21.35	Methyl Orange Indicator	Grms	500	
21.36	Sodium Carbonate (0.02N)	u	700	
21.37	Sodium Thiosulfate (0.1N)	u	800	
21.38	Sodium Bicarbonate	Kg	01	
21.39	Oxalic Acid (0.05M)	u	01	
21.40	Magnesium Sulfate	Grms	700	

2	1.41	Potassium Chromate Indicator	u	300	
2	1.42	Hydrogen Peroxide	Kg	01	
2	1.43	Phosphate Buffer Solution	Lit	0.5	
2	1.44	Alkali-Iodide-Azide Reagent	u	2	
2	1.45	Phenol	Grms	800	
2	1.46	Magnesium sulphate	и	800	
2	1.47	Bromocresol Green sodium salt	Grm	25	
2	1.48	Aluminum sulphate	Kg	1	
2	1.49	Ferrous sulphate	Grms	900	
2	1.50	Ferrous chloride	Kg	1	
2	1.51	Arsenic Kit	Kit	One & half	
2	1.52	Sodium Hydroxide	Kg	01	
2	1.53	Aluminum chloride	Kg	1	
2	1.54	Distilled water	lit	5	

3.Survey Lab

1.	Alidade brass 18" Brass Alidade Compass 18" - Large Brass Compass - Nautical Decor - Alidade Compass Nautical Decoration Fully Functioning Brass Telescope with Compass. Detailed Telescope made from brass metal. Beautiful Alidade compass also known as Turning table is a Navigational Marine Instrument to measure angle and distance of the object. Crafted classic marine collectible item Using high class Brass and finished to retro dull antique finish. brass and polished to brass finish Tube telescope Magnetic compass Polished to high class antique finish on brass Excellent retro design Decorative instrument base: 18 in telescope: 9 in overall: 8 1/8 in x 18 in x 4 1/4 in	5
2.	Alidade brass 12"	5
2.	Brass Alidade Compass 18" - Large Brass Compass - Nautical Decor - Alidade Compass Nautical Decoration Fully Functioning Brass Telescope with Compass. Detailed Telescope made from brass metal. Beautiful Alidade compass also known as Turning table is a Navigational Marine Instrument to measure angle and distance of the object. Crafted classic marine collectible item Using high class Brass and finished to retro dull antique finish. brass and polished to brass finish Tube telescope Magnetic compass Polished to high class antique finish on brass Excellent retro design Decorative instrument base: 12 in telescope: 9 in overall: 8 1/8 in x 12 in x 3 in	5
3.	Chains 100 ft.	10
J.	Durable Surveying chain with length 100 ft. This chain comes in 100ft length. It consists of 100 links each link being 1ft long. At every 10 links a brass ring or tags are provided for indication of 10 links. Readings are taken in feet and decimal.	.0
4.	Compass (Prismatic)	5
	As described in attached leaflet and with the following technical	
	data: Schmalkalder type compass with prismatic reading on an	
	oscillating ring. For topographic surveys, exploring expeditions, setting out, etc., Oscillating circle connected with compass	
	needle, outer diameter 106mm/4in., inner diameter 80mm, magnetic needle 80mm length with sliding inclination weight, graduation in ½° or ½g, simultaneous prismatic reading of the graduated circle, sighting through slot in prism housing and hinged	

	l' ('' ''	
	diopter, with spherical spirit level in compass housing 3/8" thread	
	in compass bottom.	
	Leather case for above compass	
	Antimagnetic Ball Joint Head for above compass	
	Telescopic Non-magnetic Tripod for above compass With 3/8"	
	thread, height 0.62m, extended height 1.90m	
_	Canvas Bag for Telescopic metal tripod with ball joint head	
5.	Compass (Surveyors) Surveyor's compass consists of a long, thin, pointed needle of magnetized steel with a small conical-shaped bearing of agate material at the center. The end of this needle which points north, the north end, is differentiated from the other end, the south end, by a small metal pin which passes horizontally through the needle near its north end. The agate bearing works on a pointed pivot of hard steel carried at the center of the low cylindrical metal box (140mm in diameter). Attached to the opposite ends of this box are two sighting vanes with two slow motion screws and clamps which enable a definite line of sight to be defined or laid out. The instrument can either be screwed on to a tripod or remain handheld for the purpose of measuring magnetic bearings. The metal box carries inside it, three graduated horizontal circles: top and lower circles 0-360 degrees, third circle in quadrants 0-90	5
	degrees, with the N and S directions identified as zero points and	
	the E and W directions are labelled as 90 degrees each	
6.	Hand Level in leather case	8
	Specifications:	
	Equipped with two interchangeable arcs with 47mm radius	
	One arc is graduated in degrees, 0 to 60 in both directions, and	
	the other arc is graduated in topographic.	
	Index with friction movement for fine adjustment	
	Non-glare finish	
	Height: 65mm	
	Abney level 5" (item no. 421):	
	Tube length: 5 inches Graduation: Percent and degree	
	9	
	Vernier reading: 10'	
	Abney level 7 1/2" (item no. 423): Tube length: 168mm	
	Graduation: Percent and degree	
	Vernier reading: 10'	
	Magnification: 5x	
7.	Auto Set level	5
, .	Standard deviation for 1 km double levelling : 1.0 mm	
	Telescope:	
	Magnification: 32x	
	Objective aperture : 36 mm	
	Field of view: 1º 20'	
	Multiplication factor: 100	
	Additive constant : 0	
	Min. Focusing distance; 1.0 m	
	With air type compensator of working range ±15' and setting	
	accuracy ± 0.5" and circular level sensitivity 8'/2mm	
1	Horizontal Circle:	

Graduation: 360° Graduation Level: 10 IP66 Environmental protection Temperature: -20° to 50° C operating -40° to 70° C Storage Approx. Size: 210 mm x 135 mm x 140 mm Approx. weight: 1.4 kg Lightweight, Accurate and Durable Quality Dust proof, water proof, easy to use interface, Anti- reflective Lens, Professional support network. Should be manufactured in an ISO, RoHS and CE certified factory **Electronic Theodolite** 6 Data: Double sided Display Telescope: Image: Erect Magnification: 30x Effective Aperture: 47mm Resolving Power: 3.75" Field of View: 1°30' (26m/1000m) Min. Focus: 1.5m Stadia Ratio: 100 Tube Length: 169mm Angle Measurement: Method: Absolute Encoding Dia.: 79 mm Min. reading: 1", 5", 10" Measuring unit: 360°, 400 gon Vertical Angle 0°: Zenith 0°, Horizontal 0° Accuracy: 2" Plate Vial: 30 "/ 2mm Circular Vial: 8'/ 2mm Compensator: Electronic Tilt Sensor: Vertical Compensation Compensation Range: ±3" Resolving Power: 6" Display type: Dual Face LCD Onboard Battery: Power resource: Rechargeable Li-ion Battery Voltage: DC7.4 V Operation Time: BDC 1600 mAh (About 20 hours) Laser: Length of the wave: 635 nm Power: 10 mW Effective Range: 150 m Position Error: ≤ 5" Power: DC 3.3 V Laser Plummet: Red Laser, Class II Operating Temperature: -20° C to 45° C

39

Approx. Dimensions: 180 mm x 166 mm x 355 mm

Approx. weight: 6.5 kg

Including:

	Set of 15 ranging rods	
9.	Optical Squares (Stanley) double pattern, Leather case Four different pentagon prisms that allow setting out of 90 degree angles. Two of these are actually double 90 degree angles, allowing to set out a 90 degree angle both left and right at the same time (making a line crossing at straight angles rather than a single straight angle). With the exception of the modern, plastic, one, they are all metal (brass or aluminum).	5
10.	Plane table (30" X 24") Accessories include: Drawing Board: Board may be mounted on a tripod with a leveling head or a ball-and-socket arrangement in such a fashion that it can be leveled and revolved about a vertical axis and may be clamped in any position. It consists of a metal (brass or gunmetal) or boxwood straightedge or ruler of about 45 cm long. The beveled edge is called the "ruling edge" or the "working edge" or the "fiducial edge." Alidade: The alidade may be plain fitted with sight vanes at both the ends, or it may be equipped with a telescope. One of the sight vanes is provided with a narrow rectangular slit. While other is provided with a central vertical hair or wire. If the alidade is telescopic, the telescope is provided with a vertical circle, and a level tube is fitted with cross-hairs Spirit Level: The spirit level which may be very sensitive, is not fitted to the alidade, the table can be leveled by placing the spirit level in two positions at right angles to each other and setting the plane table such that the bubble is central in both positions. Trough Compass: Trough Compass with two bubble tubes at right angles to each other mounted on a square brass plate is used for indicating the direction of the magnetic meridian on the paper. Water Proof Cover: The Waterproof cover is used to protect the sheet of paper on the plane table from the rain.	5
	Provided along with Aluminum Tripod for setting out the table.	
11.	Staves leveling staff (aluminum) Graduation (Front) TRI-E, Graduation (Back) Inside, section: 5m / 5 sec	20
12	Tape (30 m/ 100 ft)	10

Description

Differential GPS

Triple Frequency GPS.

One Base, One Rover

Key Features

Multi-Constellation Tracking

- •800 tracking channels With External Antenna, NGS approved full-wave GNSS antenna
- Support GPS, GLONASS, BeiDou, Galileo, SBAS, Support a wide range of satellite signals
- Support TerraStar® & RTK Assist

Transceiver UHF Radio

• Enable switchable working modes: Tx, Rx, • Compatible with third party radios

Multi-communication Connection

• Support UTMS/WCDMA/GPRS/GSM, • Support WIFI, Bluetooth and NFC

GNSS

Description

3D SCANNER

Scanning Part: (Flight of Time (Pulse Method Measurement Close Standard Power Low Speed High Detail* Distance - 350m 210m 210m 100m% 90 Reflectivity - 150m 90m 90m 40m% 18 Reflectivity 40m% - - - - 9 Reflectivity 1064nm Laser 3R 1M 3R Class Laser (Power Resolving (Density Scanning 11mm $\leq \varphi$ 4mm $\leq \varphi$) FWHM(Size Spot 150m to 1 20m to 1 (10m At (1mm.Minimum3 Increment Point (°360 (Line/Pt 268,20:H°) 270 (Line/Pt 202,15:V Number Point Maximum °360:H°/ 270:V View of Field "6: V" / 6: H Accuracy Angle () 5mm.3 () 5mm.3 () 0mm.4 () mm 5.3 () 5mm.3 Accuracy Distance 40m to 1 At 150m to 1 At 110m to 1 At 110m to 1 At 90m to 1 At () 0mm.2 Accuracy Surface 40m to 1 At 150m to 1 At 110m to 1 At 90m to 1 At Measurement Height 0m.2 to 3.0 Range Measuring (Target Special. Req (0mm.3 Accuracy Measuring,

Camera partL

°170 Diagonal : Wide Angle Field (H°(9.11 x) V°(9.8. : Tele 5megapixels. Tele & Wide Both pixels of Number

Tilt sensor-Type tilt axis-2 Liquid Type '6 ±Range Compens

Others (5m.1 (4mm) / 1m (1mm Size Spot Plummet Laser 1m range Magnification Plummet I

Interface (more or 6 Class SDHC (card SD Slot Card Supply Power BDC70 Battery Internal 4pcs x 1pce / 5240mAh Capacity pcs x 1pce / 4V.7 Voltage Nominal (scanning continuous 4pcs (hours 5.2 Duration Workin

• pieces 4) BDC70 (Battery• pieces 2) CDC68A (Charger Battery• pieces 2) EDC113 (Cable Charging• case Carrying• gel Silica• cloth Wiping• card SD• Components Standard case card SD• kit Tooling• sheet Target• target Centering• manual Instruction

5. Special Terms and Conditions

Standard

- **1.** The goods supplied must be capable of functioning properly under the climatic conditions of the area.
- 2. There shall be no deviation from specification and country of make as provided with each item. In case of any ambiguity in specification/ accessories needed for the full functioning of the equipment, the firm must clear it with the Procurement Committee. However, the decision of the Procurement Committee will be final.
- 3. The goods with standard accessories supplied under this tender shall confirm to the standard maintenance in the technical specification.

Training

1. The firm supplying the item/ equipment(s) will demonstrate the operation/ working of the supplied goods to the satisfaction of UET, Mardan and provide training. Suppliers are advised to provide details on formal training for covering all aspects.

Calibration of item/equipment

2. The supplier will install the good(s) in the presence and to the satisfaction of the Procurement Committee, if need be. In case of any defect in the supplied good(s) or if it is not in accordance with the desired specification(s), the goods will be changed at the cost of the supplier.

Warranty/ Guarantee

- 3. The Supplier will give comprehensive onsite warranty/ guarantee that the goods/ stores/ articles would continue to conform to the description and quality as specified for a period of at least One(01) year from the date of delivery, installation and commissioning of the said goods/ stores/ articles to be purchased and that notwithstanding the fact that the purchaser may have inspected and/ or approved the said goods/ stores/ article, if during the aforesaid period, the said goods/ stores/ articles, be discovered not to conform to the description and quality aforesaid or have determined (and the decision of the Procurement Committee in that context will be final and conclusive), the UET, Mardan will be entitled to reject the said goods/ stores/ articles or such portion thereof as may be discovered not to conform to the said description and quality, on such rejection the goods/ articles/ stores will be at the supplier's risk and all the provisions relating to rejection of goods etc. shall apply.
- 4. The Supplier shall, if so called upon to do, replace the goods etc., or such portion thereof as is rejected by Procurement Committee, otherwise the supplier shall pay such damage as may arise by the reason of the breach of the condition herein contained. Nothing herein contained shall prejudice any other right of the Procurement Committee in that behalf under this contract or otherwise.

5. The Supplier shall also replace equipment, in case it is found defective which cannot be put to operation due to manufacturing defect, etc. In case of equipment specified by the Procurement Committee, the supplier shall be responsible from carrying out annual maintenance and repairs on the terms and conditions as may be agreed. The supplier shall also be responsible to ensure adequate regular supply of spare parts needed for a specific type of equipment whether under their annual maintenance and repairs contract or otherwise. In case of change of model, supplier will give sufficient notice to the Procurement Committee who may like to purchase spare parts from them to maintain the equipment in perfect condition.

6. Returnable Bidding Forms/Checklist

This section serves as a checklist for preparation of your Bid. Please complete the Returnable Bidding Forms in accordance with the instructions in the forms and return them as part of your Bid submission. No alteration to format of forms shall be permitted and no substitution shall be accepted. Before submitting your Bid, please ensure compliance with the Bid Submission instructions of the BDS. Bid Proposal:

Have you duly completed all the Returnable Bidding Forms?	
Form A: Bid Submission Form	1.
Form B: Joint Venture/Consortium/ Association Information Form	2.
Form C: Bidder Information Form	3.
Form D: Qualification Form	4.
Form E: Bid Proposal Form	5.
Form F: Specifications Compliance Form	6.
Form G: Price Schedule Form	7.
Have you provided the required documents to establish compliance with the evaluation criteria in Section 4?	8.

Form A: Bid Submission Form

(To be submitted in an envelope duly sealed and marked as Technical Proposal)

Name of the Bidder:	Date:
ITB reference:	

We, the undersigned, submit our Bid for the award of contract to supply the goods and related services required for [Insert Title of goods and services] in accordance with your Invitation to Bid No. [Insert ITB Reference Number]. We hereby submit our Bid, which includes this Bid proposal. We hereby declare that our firm, its affiliates or subsidiaries or employees, including any JV/ Consortium/ Association members or subcontractors or suppliers for any part of the contract:

- is not under procurement prohibition by any of the Government/ Semi-government/ Autonomous Organization;
- have not been suspended, debarred, sanctioned or otherwise identified as ineligible by any Organization in Pakistan;
- have not declared bankruptcy, are not involved in bankruptcy or receivership proceedings, and there
 is no judgment or pending legal action against us that could impair our operations in the foreseeable
 future;
- undertake not to engage in proscribed practices, including but not limited to corruption, fraud, coercion, collusion, obstruction, or any other unethical practice, with the UET, Mardan, and to conduct business in a manner that averts any financial, operational, reputational or other undue risk to the UET, Mardan.

We declare that all the information and statements made in this Bid are true and we accept that any misinterpretation or misrepresentation contained in this Bid may lead to our disqualification and/ or sanctioning by the UET, Mardan.

We offer to supply the goods and related services in conformity with the Bidding documents, including the UET, Mardan General Conditions of Contract and in accordance with the Schedule of Requirements and Specifications. Our Bid shall be valid and remain binding upon us for the period specified in the Bid Data Sheet. We understand and recognize that you are not bound to accept any Bid you receive.

I, the undersigned, certify that I am duly authorized by [Insert Name of Bidder] to sign and submit this Bid on behalf of bidder to UET, Mardan.

Name:	
Гitle:	
Date:	
Signature:	
Ctanana with afficial atoms of the Bidden	

[Stamp with official stamp of the Bidder]

Form B: Joint Venture/ Consortium/ Association Information Form

(To be submitted in an envelope duly sealed and marked as Technical Proposal)

Nam	e of the Bidder:									Date:			
ITB re	eference:									1			
To b Ventu	e completed and r re/Consortium/Associat		with	your	Bid	if	the	Bid	is s	ubmitted	as	а	Joint
No.	Name of Partner and conditions (address, telephone nuaddress) [Complete]				-mail	%) pe	•	type o	•	•			-
2	[Complete]					-	omple						
3	[Complete]					[C	omple	ete]		ery partner, which details the of the members of the said ciation agreement ture/Consortium/Association provisions of the Contract.			
(with Association Association We had likely I joint v	egal structure of and the enture: eer of intent to form a journey confirm that if the enture is the enture of the enture is the enture of the	he below rene confirmation	eferen ation o	of joint [ed, all [and s	ent s seve	signed rable sortiu	liabil m/Ass	ity of too	the memb on agreem /Consortiu	ers o nent nm/As	of the	e said
Signat Date: Name	of partner: ure: of partner:			Date: Nam	cure: _	artr	ner: _						
_	Signature: Signature:												
Date:				Date	:								

Form C: Bidder Information Form

(To be submitted in an envelope duly sealed and marked as Technical Proposal)

Legal name of Bidder	[Complete]
Legal address & Branch Offices	[Complete]
Year of registration	[Complete]
Bidder's Authorized Representative Information	Name and Title: [Complete] Telephone numbers: [Complete] Email: [Complete]
Countries of operation	
No. of full-time employees	
No. of Technical Staff	
Quality Assurance Certification (e.g. SO 9000 or Equivalent) (If yes, provide a Copy of the valid Certificate):	[Complete]
Does your Company hold any accreditation such as ISO 14001 or ISO 14064 or equivalent related to the environment? (If yes, provide a Copy of the valid Certificate):	[Complete]
Does your Company have a written Statement of its Environmental Policy? (If yes, provide a Copy)	[Complete]
Does your organization demonstrates significant commitment to sustainability through some other means, for example internal company policy documents on women empowerment, renewable energies, education, vocational trainings ,social responsibility towards people with Special needs, or membership of trade institutions promoting such issues	[Complete]
Contact person that UET, Mardan may contact for clarifications during bid evaluation	Name and Title: [Complete] Telephone numbers: [Complete] Email: [Complete]
Please attach the following documents:	 Company Profile, which should not exceed fifteen (15) pages, including printed brochures and product catalogues relevant to the goods and/ or services being procured. Proposed timetable for delivery, installation and commissioning plan for the required and

	quoted items to UET, Mardan after the award
	of Contract.
	 Certificate of Registration of the business.
	Principal's Authorization Letter in favor of
	Bidder to participate in this Tender.
	A proofing document confirms the offered
	warranty for at least One (01) year,
	supported by the manufacturer's certificates,
	if applicable.
	 A proofing document confirming supply of
	same or similar items of this magnitude to
	various clients/ customers in Pakistan.
	 Proven records of no less than the required
	Projects of similar nature/ value/ complexity
	in which delivery and services were
_	extended.
	Full detailed description of the specifications
	of the proposed items in addition to
	catalogues clearly showing the proposed
	specifications responding to the
	requirements.
	Supporting photos of the proposed items, if
	applicable.
	Quality certifications: ISO 9001:2015 (if
	applicable)
	Latest Audited Financial Statements (Income Statements and Balance Chapth) including
	Statement and Balance Sheet) including
	Auditor's Report for the past (3 years).

Note: To be filled in by each partner in case Bid is submitted as a JV/ Consortium/ Association

Form D: Qualification Form

(To be submitted in an envelope duly sealed and marked as Technical Proposal)

Name of the Bidder:	Date:
ITB reference:	

If JV/ Consortium/ Association, to be completed by each partner.

Previous Relevant Experience

Please list all Projects successfully completed in the last 3 years, covering following aspects;

- a) Scope of the projects/ assignments.
- b) Activities performed for the successful completion of the project.
- c) Support Services Contracts in hand with SLA for the supplied goods.

List only those assignments for which the Bidder was legally contracted or sub-contracted by the Client as a company or was one of the Consortium/ JV partners. Assignments completed by the Bidder's individual experts working privately or through other firms cannot be claimed as the relevant experience of the Bidder, or that of the Bidder's partners or sub-consultants, but can be claimed by the Experts themselves in their CVs. The Bidder should be prepared to substantiate the claimed experience by presenting copies of relevant documents and references if so requested by UET, Mardan.

Project name &	Client & Reference	Contract	Period of	Types of activities
Country of	Contact Details	Value	activity and	undertaken
Assignment			status	

Bidders may also attach their own Project Data Sheets with more details for assignments above.

History of Non-Performing Contracts

☐ Non-performing contracts did not occur during the last 3 years				
☐ Conf	tract(s) not performed	in the last 3 years		
Year	Year Non- performed Contract Identification Total Contract Am			
	portion of contract		(current value in PKR)	
		Name of Client:		
Address of Client:				
Reason(s) for non-performance:				

Financial Standing

Annual Turnover for the last 3 years	Year	PKR
	Year	PKR
	Year	PKR

Latest Credit Rating (if any), inc	licate the		
source			
Financial information	Histo	ric information for the la	st 3 years
(in PKR equivalent)			
	Year 1	Year 2	Year 3
	Ir	formation from Balance	Sheet
Total Assets (TA)			
Total Liabilities (TL)			
Current Assets (CA)			
Current Liabilities (CL)			
	Ir	formation from Balance	Sheet
Total / Gross Revenue (TR)			
Profits Before Taxes (PBT)			
Net Profit			
Current Ratio			

[☐] Attached are copies of the audited financial statements (balance sheets, including all related notes, and income statements) for the years required above complying with the following condition:

- a) Must reflect the financial situation of the Bidder or party to a JV, and not sister or parent companies;
- b) Historic financial statements must be audited by a certified auditing firm;
- c) Historic financial statements must correspond to accounting periods already completed and audited. No statements for partial periods shall be accepted.

Form E: Technical Bid Proposal Form

(To be submitted in an envelope duly sealed and marked as Technical Proposal)

Name of the Bidder:	Date:
ITB reference:	

The Bidder's Bid should be organized to follow this format of the Technical Bid Proposal. Where the bidder is presented with a requirement or asked to use a specific approach, the bidder must not only state its acceptance, but also describe how it intends to comply with the requirements. Where a descriptive response is requested, failure to provide the same may be viewed as non-responsive.

SECTION 1: Qualification, capacity and expertise

- Bidder's general organizational capability: management structure, financial stability and project financing capacity, project management controls, extent of work to be subcontracted (if so, provide details).
- Bidder's relevance of specialized knowledge and experience on similar engagements done
 in the region/ country. Bidder should submit a detailed description of the projects
 executed (quantities, value, beneficiary).
- Manufacturer's strengths covering the regional/global market presence, hi-tech products portfolio, manufacturing capacity, R&D activities resulting in national and international patents, quality control and assurance practices, and international certifications in relevant areas.

SECTION 2: Management Structure and Key Personnel

- 2.1 Describe the overall management approach toward planning and implementing the project. Include an organization chart for the management of project describing relationship of key positions and designations.
- 2.2 Provide CVs for key personnel that will be provided to support the implementation of this project using the format below. CVs should demonstrate qualifications in areas relevant to scope of goods and/or services.

Format for CV of Proposed Key Personnel

Name of Personnel	[Insert]
Name of reisonner	[III3611]
Position	[Insert]
Nationality	[Insert]
Language proficiency	[Insert]
Education/	Summarize college/university and other specialized education of personnel
Qualifications	member, giving names of schools, dates attended, and
	degrees/qualifications obtained.]
	[Insert]
Professional	Provide details of professional certifications relevant to the scope of goods
certifications	and/or services]
	☑ Name of institution: [Insert]
	Date of certification: [Insert]

Employment Record/	[List all positions held by personnel (starting with present position, list in
Experience	reverse order), giving dates, names of employing organization, title of
	position and location of employment.
	[Insert]

SECTION 3: Scope of Supply, Technical Specifications and Training(s)

This section should demonstrate the Bidder's responsiveness to the specification by identifying the specific components proposed, addressing the requirements, as specified, point by point; providing a detailed description of the essential performance characteristics proposed; and demonstrating how the proposed bid meets or exceeds the requirements/specifications. All important aspects should be addressed in sufficient detail.

- 1.1 A detailed description of how the Bidder will deliver the required goods and services, keeping in mind the appropriateness to local conditions and project environment. Details how the different service elements shall be organized, controlled and delivered.
- 1.2 Explain whether any work would be subcontracted, to whom, how much percentage of the requirements, the rationale for such, and the roles of the proposed sub-contractors and how everyone will function as a team.
- 1.3 Implementation plan including a Gantt Chart or Project Schedule indicating the detailed sequence of activities that will be undertaken and their corresponding timing.
- 1.4 Details on post-deployment trainings on-site hands-on training for all equipment.

SECTION 4: Registration & Certifications

This section should demonstrate the Bidder's responsiveness towards its registration with the relevant national body and international organizations certifying the bidder's qualifications with respect to Quality and Project Management.

- 4.1 Provide a copy of valid registration with the relevant govt Authority.
- 4.2 Provide a copy of valid Certificate issued by International Organization for Standardization certifying the bidder's compliance and practices towards quality management principles and standards in their offered products/ solutions and services.
- 4.4 Provide a copy of valid Certificate issued by International Organization for Standardization certifying the bidder's compliance and practices towards information security management principles and standards in their offered products/ solutions and services.

SECTION 5: Warranty and Support Services

This section should demonstrate the Bidder's responsiveness to the post-commissioning warranty and support services of the goods supplied, addressing the requirements, as specified, point by point; providing a detailed description of the essential performance characteristics proposed; and demonstrating how the proposed bid meets or exceeds the requirements. All important aspects should be addressed in sufficient detail.

5.1 A detailed description of how the Bidder will provide the Warranty claims to the users, keeping in

- mind the span and complexity of the project in context of local conditions and project environment.
- 5.2 Details how the post-delivery/ deployment Support Services will be provided to the users keeping in consideration the criticality of systems, and dependency of university administration and operations on such systems.

Form F: Specifications Compliance Form

(To be submitted in an envelope duly sealed and marked as Technical Proposal)

Name of the Bidder:	Date:
ITB reference:	

The Bidder's Bid should be organized to follow this format of the Technical Bid Proposal. Where the bidder is presented with a requirement or asked to use a specific approach, the bidder must not only state its acceptance, but also describe how it intends to comply with the requirements. Where a descriptive response is requested, failure to provide the same may be viewed as non-responsive.

Goods and Services to be supplied (based on the technical specification provided in Section 5) Required Items:		Comply (Yes/NO) (If No, Indicate discrepancy	Quotes Specification	Type/Model No. and Country of Origin Required
		Offered:		

Form G: Price Schedule Form

(To be submitted in	n an envelope duly sealed and mar	ked as Finan	iciai Proposai)	
Name of	the Bidder:			Date:	
ITB refere	ence:			'	
_		epare the Price Schedule following to down of all goods and related serv			e Schedule mus
you of our deviation a	full compliance to and/ or reservatio	e, hereby submit our Financial Bid for the required specifications, delivens. We reiterate our acceptance to low is submitted for your kind cons	ery schedule o the terms	and other ter	ms without any
Total Bid V	'alue in Figures (in	cluding Extended Warranty Price):			
Total Bid V	alue in words (inc	luding Extended Warranty Price):_			
Name & De	esignation of Auth	orized Person:			
Signature:		(Please affix company s	tamp here)		
Note: Quo	ted price must be	inclusive of all taxes and duties.			
ITEMS					
			Quantity	Unit Price	Price (C&F)

Annexure - I: Integrity Pact

The Bidders will be required to submit the below text on stamp paper after filling in the details and duly signed as well as stamped, as part of their Technical Proposal.

DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC PAYABLE BY THE SUPPLIER OF GOODS, SERVICES & WORK IN CONTRACTS WORTH RS. 10.0 MILLION OR MORE

(To be filled by the bidder as a part of tec	chnical proposal)
Contract Number:	
Contract Value:	
Contract Title:	
•	it has not obtained or induced the procurement of any contract,
- · · · · · · · · · · · · · · · · · · ·	on or benefit from Government of Pakistan or any administrative ner entity owned or controlled by it (GoP) through any corrupt
fully declared the brokerage, commission or agreed to give and shall not give or ag or indirectly through any nature or jur consultant, director, promoter, sharehold finder's fee or kickback, whether describe	represents and warrants that it has a, fees etc. paid or payable to anyone and not given or not given gree to give to anyone within or outside Pakistan either directly ridical person, including its affiliate, agent, associate, broker, der, sponsor or subsidiary, any commission, gratification, bribe, ed as consultant fee or otherwise, with the object of obtaining or ight, interest, privilege or other obligation or benefit in whatever spressly declared pursuant hereto.
arrangements with all persons in respect	s made and will make full disclosure of all agreements and of or related to the transaction with GoP and has not taken any mvent the above declaration, representation or warranty.
making full discloser, misrepresenting for declaration, representation and warrant obligation or benefit obtained or procur	bility and strict liability for making any false declaration, not acts or taking any action likely to defeat the purpose of this y. It agrees that any contract, right, interest, privilege or other ed as aforesaid shall, without prejudice to any other right and , contract or other instrument, be voidable at the option of GoP.
identify GoP for any loss or damage incur pay compensation to GoP in an amount of bribe, finder's fee or kickback given by	s exercised by GoP in this regard, agrees to red by it on account of its corrupt business practices and further equivalent to ten time the sum of any commission, gratification, as aforesaid for the purpose of obtaining or fact, right, interest, privilege or other obligation or benefit in
[Buyer] [Seller / Supplier]	

Annexure - II: Draft Contract Sample

	THIS AGREEMENT made the day of the december of the decem		2021 between University of Engineering & eer Brothers Lahore (Supplier):
of ser	of Civil Engineering Department] and has ac	ccepted a b	n goods and ancillary services, viz., [Lab Equipment id by the Supplier for the supply of those goods and ix hundred & seven only) (hereinafter called "the
NC	NOW THIS AGREEMENT WITNESSETH AS FO	OLLOWS:	
1. 2.	to them in the Conditions of Contract re	eferred to.	ve the same meanings as are respectively assigned form and be read and construed as part of this
i. ii.		ıbmitted by	the Bidder;
ıı. iii.	·		
iv.	v. the General Conditions of Contract;		
٧.	•		
vi.	i. the Procuring agency's Notification of A	Award.	
3.	mentioned, the Supplier hereby cove	nants with	the Procuring agency to the Supplier as hereinafter the Procuring agency to provide the goods and ity in all respects with the provisions of the Contract
4.	I. The Procuring agency hereby covenant goods and services and the remedying of	ts to pay th of defects t	ne Supplier in consideration of the provision of the herein, the Contract Price or such other sum as may tract at the times and in the manner prescribed by
			d this Agreement to be executed in accordance with vritten.
Sig	signed, sealed, delivered by	_the	(for the Procuring Agency)
Sig	signed, sealed, delivered by	_the	(for the Supplier)
Wi	Vitnesses 1.		
	Procuring Agency)		Witnesses2.
			(Procuring Agency)