



**Government of Khyber Pakhtunkhwa  
Standard Bidding Document  
FOR**

**Procurement for Laboratory Chemical Regents on Rental Basis  
Medical Teaching Institution, (ATH) Abbottabad  
Under National Competitive Bidding (NCB)**

**Tender (2025-28)**

## **PREFACE**

These Standard Bidding Documents have been prepared for use & prepared by the Ayub Medical & Teaching Institution Abbottabad, for procurement of Lab Chemicals i.e. Reagents on Rental basis, through National Competitive Bidding (NCB) Khyber Pakhtunkhwa via E-PADS.

The standard bidding documents for procurement of the said Bidding Documents are grouped in five parts.

- Part-I Mandatory Documents
- Part-II Instructions to Bidders (ITB)
- Part-III Technical Evaluation Performa
- Part-IV Demand list.
- Part-V Equipment's specification
- Part-VI Contract Agreement

## PART -I

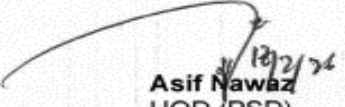
### Mandatory Documents

#### PART -I


##### Mandatory Documents for Laboratory Chemical Regents on Rental Basis

- a) Bidder shall be Manufacturer/Importer and shall be registered with DRAP or Authorized Distributors of Manufacturer/Importer shall attach Authorization Certificate and DRAP Registration of respective Manufacturer/Importer.
- b) 100% compliance to specification.
- c) Income tax registration with last year income tax return and shall be active on ATL at the time of submission of bid.
- d) Sales tax registration and shall be active on ATL at the time of submission of bid.
- e) Last year bank statement.
- f) Performance certificate issued by the MTI ATH end user (Pathology Dept.) in case the supplier has previously executed a contract with MTI ATH.
- g) Original CDR amount of **Rs. 500,000 PKR** in the name of Hospital Director MTI ATH Abbottabad shall be provided in hard and also uploaded on E-PADS.
- h) Integrity Pact on a judicial stamp paper.
- i) Under taking on judicial stamp paper (Hard copy as well as upload on E-PADS) for the following:
  - 1 Bidder is NOT blacklisted in any Govt. (Federal, Provincial or Local) or a public sector Organization.
  - 2 No employee of Ayub Teaching Hospital is shareholder in the company business.


Note: Any Document Missing in the mandatory documents will lead to disqualification.

  
**Asif Nawaz**  
HOD (PSD)  
Co-Opted Member

  
**Sardar Pervaiz**  
Litigation Officer  
Member

  
**Wg Cdr (Retd) Asghar Khan**  
Senior Manager Material Management  
Chairman

  
**Dr. Anila Riyaz**  
Chairperson Pathology  
Co-Opted Member

  
**Altaf Ur Rehman**  
Finance Director  
Member

## **PART -II**

### **Instructions to Bidders (ITB)**

#### **(A) General:**

##### **1 Scope of Bid**

AMTI invites bids for supply of Laboratory chemical Regents on rental Basis Items specified in Schedule of Requirements along with Technical Specifications and related services incidental thereto to meet the requirements AMTI Abbottabad with Bid Reference Number for the procurement activity as mentioned in Bid Data Sheet (BDS).

##### **2 Source of Funds**

AMTI Abbott bad

##### **3 Eligible Bidders**

3.1 This Invitation for Bidders (IFB) is open to all eligible registered manufacturers and registered importers supply of lab chemicals. The Importer must possess valid authorization from the Principal origin Furthermore all the items quoted must be registered with the relevant forum.

3.2 Bidders under the declaration of ineligibility for corrupt and fraudulent practices issued by the Government (Federal, Provincial or Local) or a public sector organization are NOT ELIGIBLE.

##### **4. Corruption and Fraud.**

4.1 The Government of Khyber Pakhtunkhwa defines Corrupt and Fraudulent Practices as, *“offering, giving ,receiving or soliciting of anything of value to influence the action of the public official or the supplier or the contractor in the procurement process or in contract execution to the detriment of the Procuring agencies; or misrepresentation of facts in order to influence a procurement process or the execution of contract, collusive practices among bidder (prior to or after bid submission) designed to establish bid prices at artificial, non-competitive and any request for or solicitation of anything of value by any public official in the course of the exercise of this duty”*.

4.2 Indulgence in corruption and fraudulent practices is liable to result in rejection of Bids, cancellation of contract, debarring and blacklisting of the bidder, for a stated or indefinite period of

## **5. Bidding for Selective Items.**

A Bidder, if he so chooses, can bid for selective items from the list of goods provided for the schedule of Requirements. A Bidder is also at liberty to bid for all the goods mentioned in the Schedule of Requirements provided he fulfills the requirements.

However, a Bidder cannot bid for partial quantities of an item in the Schedule of Requirement. THE BID MUST BE FOR THE WHOLE QUANTITY OF AN ITEM REQUIRED IN THE SCHEDULE OF REQUIREMENT

### **(B) The Bidding Procedures:**

#### **1. The Governing Rules.**

The Bidding procedure shall be governed by the Khyber Pakhtunkhwa Public Procurement of Goods, Works and Services KPPRA Rules, 2014.

#### **2. Applicable Bidding Procedure.**

The bidding procedure is governed by thy Rule 06 Para (2) KPPRA Rules, 2014.

#### **3. The bidding procedure is explained below:**

Single Stage, Two Envelop Procedure (Rule 2(b) KPPRA 2014) via E-PAD KPPRA.

- i) The bid shall be submitted through E-Pad both the Technical Proposal and the Financial Proposal.
- ii) The files shall be marked as “TECHNICAL PROPOSAL” and “FINANCIAL PROPOSAL” OF LABORATOYR CHEMICAL ON REGENT BASIS in bold and legible letters to avoid confusion.
- iii) Initially the “TECHNICAL PROPOSAL” shall be downloaded; technical proposal is to determine the technical strength and consideration of the illegibility of the firm for the bidding process, which is to be carried out before the opening the financial bids.
- iv) The “FINANCIAL PROPOSAL” shall be only be downloaded and opened after the successful technical evaluation.
- v) The Technical Evaluation committee shall evaluate the technical proposal, without reference to the price and reject any proposal which do not conform the specified requirements.
- vi) During the technical evaluation no amendments in the technical proposal shall be permitted.

- vii) The financial proposals of bids shall be opened publicly at a time, date and venue to be announced and communicated to the Bidders in advance.
- viii) After the evaluation and approval of the technical proposal the Purchase committee shall at a time within the bid validity period, publicly open the financial proposals of the technically accepted bids only.
- ix) The bid found to be the lowest offered price shall be accepted.

## **Preparation of Bids**

### **(A) The Bidding Documents:**

#### **1. Contents of the Bidding Documents**

The Bidding Documents include

#### **2. Language of Bids.**

2.1 All Correspondences, communications associated with preparation of Bids, clarifications, amendments, submissions shall be written in English/Urdu. Supporting documents and printed literature furnished by the Bidder may be in any language provided they are accompanied by an accurate translation of the relevant passages in English/urdu, in which case, for purpose of interpretation of the Bid, the said translation shall take precedence.

#### **3. Bid Price**

3.1 The Bidders should quote the prices of the goods according to the technical specifications the technical specifications of goods; different from the required specifications shall straightway be rejected.

3.2 The Bidder is required to offer a competitive price which must include all the taxes, levies, duties, prescribed prices.

If there is no mention of taxes, the offered/quoted price shall be considered as inclusive of all prevailing taxes/duties, etc.

3.3 The benefit of exemption from or reduction in the taxes and duties shall be passed as per Govt. rules.

3.3 Prices offered should be for the entire quantity of an item demanded in the Schedule of Requirement; partial quantity offered shall be straightway rejected. Conditional or alternate offer shall also be considered as non-responsive bid.

3.4 While making a price quote, trends/inflation in the rate of goods and services in the market should be kept in mind. No request for increase in price due to market fluctuation in the cost of goods or services shall be entertained.

#### **4. Bid Currencies**

Price shall be quoted in Pakistani Rupees.

#### **5. Bid Validity**

5.1 Bid Validity is for 90 days.

5.2 The TEC shall ordinarily be under an obligation to process and evaluate the bid within the stipulated bid validity period. However, under exceptional circumstances and for reason to be recorded in writing, if an extension is considered necessary, all those who have submitted their bids shall be asked to extend their respective bid validity period. Such extension shall be for not more than the period to the period of original bid validity.

5.3 Bidders who;

- a) Agree to the Competent Authority request for extension of bid validity period shall not be permitted to change the substance of their bids; and
- b) Do not agree an extension of the bid validity period shall be allowed to withdraw their bids without forfeiture of their bid securities.

#### **6. Format and Signing Of Bids**

6.1 The bidder shall prepare and submit its bid and provide original documents bas appropriate. Copies of any documents must be stamped and signed by the bidders.

6.2 The Bid shall be accompanied by the original receipt for the payments made for the purchase of the bidding document. In an event

Where the Bidder has downloaded the bidding document from the web, they will require to get the original payment receipt of the prescribed fee from the Procuring cell well before the date of submission of bid.

6.3 The original bid shall be typed or written in indelible ink and shall be signed by the bidder or a person or persons duly authorized to bind the bidder to Contract. The person or person signing the bid shall initial all pages of the bid form.

6.4 Any interlinear actions, erasures or overwriting shall valid only if they are initiated by the person or persons signing the bid.

6.5 Any tempering, illegitimate inclusion or exclusion in any part of the Standard Bidding Documents shall lead to disqualification of the bidder.

## **Submission Of Bids**

### **7. Submission of Bids**

The “TECHNICAL PROPOSAL” and “FINANCIAL PROPOSAL” of Laboratory chemical On Regent Basis shall be uploaded on E-PADS according to the dates mentioned in the advertisement.

### **8. Late Bids**

Any bid if not uploaded to portal before the end time shall Not be entertained later.

### **9. Withdrawal of Bids**

9.1 The Bidder may withdraw its bid after the bid’s submission and prior to the deadline prescribed for opening of bids.

9.2 No bid may be withdrawn in the period between deadline for submission of bids and the expiration of the period of bid validity specified. Withdrawal of a bid during this period may result in forfeiture of the Bid Security submitted by the Bidder

## **Opening and Evaluation of Bids**

### **1. Opening of Bids by Procuring Agency**

1.1 All bids received through E-PADS shall be opened by the Tender opening committee (Purchase Committee) publicly in the presence of the Bidders or their representatives on the date, time and venue prescribed in Advertisement.

1.2 All Bidders in attendance shall sign an attendance sheet.

1.3 The Purchaser shall open one bid at a time and read out aloud its contents which may include name of the Bidder, the presence or absence of requisite bid security CDR amounting 500,000 PKR, and such other details as the Purchaser, at its discretion, may consider

appropriate if not in conflict with Khyber Pakhtunkhwa Public Procurement of Goods, Works and Services Rile 2014 specifically Rule 37.

1.4 The Procuring cell shall have the minutes of the Bid opening (technical and when applicable financial) recorded.

1.5 No Bid shall be rejected at technical proposal/bid opening, except for late bids, Tender fee receipt & non submission of Original CDR and judicial stamp papers.

1.6 The Envelop without Bid Security CDR shall also be returned unannounced to the bidders. However, prior to return to the bidder, the Chairman of the Purchase/Procurement Committee shall record a statement giving reasons for return of such bid(s).

## **2. Clarification of Bids**

During evaluation of the bids the TEC may, at its discretion, ask the bidder for a 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.

## **3. Examination of Technical BIDS**

After opening of the bids by Tender opening committee, the bids will submitted to TEC FOR Technical Evaluations.

## **4. Examination of Financial BIDS**

4.1 The firms achieved the qualified marks in technical evaluation against the quoted items so as its financial bids will be opened by Purchase Committee.

4.2 In the financial bids the arithmetical errors shall be rectified on the following basis.

a) If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected.

b) If the Bidder does not accept the correction of the error, its bid shall be rejected, and its Bid Security may be forfeited.

c) If there is a discrepancy between words and figures, the amount in words shall prevail.

d) For the purpose of comparison of bids quoted in different currencies, the price shall be converted into Pak Rupees. The rate of exchange shall be the Selling rate, prevailing on the date of opening of bids specified in the bidding documents, as notified by the State Bank of Pakistan/National Bank of Pakistan on that day.

e) A bid once opened in accordance with the prescribed procedure shall be subject to only those rules, regulations and policies that are in force at the time of issue of notice for invitation of bids.

f) The procurement cell prepared the comparative statements of the product and purchase committee approved the items

## **5. Announcement of Evaluation Report**

The TEC may announce the results of the bid evaluation in form of a report through its website of the institution or display office notice board, giving justification for acceptance or rejection of bids at least ten days prior to the award of procurement Contract.

## **6. Re-Bidding**

6.1 If the TEC has rejected all bids under Rule 47, it may call for a re-bidding Khyber Pakhtunkhwa Public Procurement of Goods, Works & Services Rules 2014 (Rule-48).

6.2 The TEC before invitation for re-bidding shall assess the reasons of rejection and may revise specifications, evaluation criteria or any other condition for Bidders as it may deem necessary.

## **Award of Contract**

### **7. Acceptance of Bid and Award Criteria**

The Bidder, whose bid is found to be most closely conforming to the Evaluation Criteria and having the lowest evaluated responsive bid, if not in conflict with any other law, rule, regulation or policy of the Government of Khyber Pakhtunkhwa, shall be awarded to the Contract within the original or extended period of bid validity.

### **8. Competent Authority Right to vary quantities at the time of Award**

The competent Authority reserves the right at the time of the award of the Contract to increase or decrease, the quantity of goods originally specified in the Schedule of Requirements without any change in unit price or other terms or conditions

### **9. Notification of Award**

9.1 Prior to the expiration of the period of the bid validity, the procurement cell shall notify to the successful Bidder in writing that its bid has been accepted Rule 46 in conformity with provision of Section 31 of the act in these rules.

9.2 The notification of the award shall constitute the formation of the Contract between the competent authority and the successful Bidder.

9.3 The enforcement of the Contract shall be governed by the Rule 50 of the Khyber Pakhtunkhwa Public Procurement of Goods, Works & Services Rules 2014.

## **10. Limitation on Negotiations**

10.1 Negotiations that may be undertaken in finalization of the Contract shall not relate to the price or substance of bid specified by the Bidder but only to minor technical, contractual or logistical details.

10.2 Negotiations may relate to the following areas; (the list is being provided as guidance as only and under no circumstances be treated as exhaustive and final):

- Minor alternation to technical details, such as scope of work, the specification or drawings;
- Minor amendment to the Special Condition of Contract;
- Finalization of payment schedule and ancillary details;
- Mobilization arrangements;
- Agreement on final delivery or completion schedules to accommodate any changes required by the Procuring Agency;
- The proposed methodology or staffing;
- Inputs required from the Procuring Agency;
- Clarifying details that were not apparent or could not be finalized at the time of the bidding;
- The Bidder's tax liability in Pakistan, if a Bidder is a foreign company.

## **11. Negotiations shall not be used to:**

- Substantially change the technical quality or details of the requirement, including the task and responsibilities of the Bidder or the performance of the goods;
- Substantially alter the terms & conditions of the Contract;
- Reduce unit rates or reimbursable costs;
- Substantially alter anything which formed a crucial or deciding factor in the evaluation of the bids or proposals;
- Alter the submitted financial bid.

## **12. Signing of Contract**

- I. After the completion of Contract Negotiations the Purchaser shall send the Bidder the Contract Agreement Form provided in Part-Two: Section IV of these Standard Bidding Documents, incorporating all agreements between the Parties.
- II. Within one week of the receipt of the Contract Agreement Form, the successful Bidder and the Purchaser shall sign the Contract in accordance with the legal requirements in vogue.
- III. Unless the procurement contract has already entered into force a contractor or supplier feeling aggrieved by the Order of a Purchaser accepting a bid may file an application for review.
- IV. If a successful Bidder, after completion of all codal formalities show an inability to sign the Contract then its Bid Security shall stand forfeiture and the firm may be blacklisted and de-barred from future participation, whether temporarily or permanently. In such situation the Purchaser may award the Contract to the next lowest evaluated Bidder or call for a new bid.
- V. The Contract shall become effective upon affixation of signature of the Purchaser and the selected Bidder on the contract document, shall be governed for the period of one year or till the finalization of new contract.
  - a) All Goods and related Services to be supplied under the contract that are required to be imported in Pakistan shall have their origin in eligible source countries as prescribed by the commercial polices of Federal Government Of Pakistan and all expenditures made under the contract shall be limited to such goods and services.
  - b) For purpose of this Clause “origin” means the place where the goods are produced, or the place where the related services are supplied. Goods are produced when, through manufacturing or processing.

### **PART –III**


**TECHNICAL EVALUATION PERFORMRA FOR LABORATORY CHEMICAL REGENT ON RENTAL BASIS**

**PART -III**

**AYUB TEACHING HOSPITAL, AMTI, ABBOTTABAD  
TECHNICAL EVALUATION PERFORMRA FOR LABORATORY CHEMICAL REGENT ON RENTAL BASIS (FY 2025-28)**

M/S						
A	B	C	D	G	H	
B No	Names of Product offered	Credibility & certifications: ISO, CE, FDA & OR its equivalent certificate.	Good Declaration certificate of the quoted item issued by Pakistan customs.	Last 05 years performance Certificate from Govt Health institution in country/ private health institutions register with Health care commission. One Certificates = 03 Marks Two Certificates=06 Marks Three Certificates =10 Marks attested by CEO/Senior executive of the Firm	Technical Staff 1. Biomedical Engineer (05) Marks 2. Technicians (02) Marks 3. Sale Staff (02) Marks 4. Staff Training Certificate (01) Mark	Valid documents of the FBR showing financial turnover of the firm for the last one year. Maximum of 10 marks will be awarded in the following manner. Financial Turn over of PKR < 10millions =0 Marks. Financial Turn over of PKR 10 to < 30 millions =2 Marks. Financial Turn over of PKR 30 to < 50millions =4 Marks. Financial Turn over of PKR 50 to < 70 millions =6 Marks. Financial Turn over of PKR 70 to < 90millions =8 Marks. Financial Turn over of PKR 90 million & above =10 Marks
	10 Marks	10 Marks	10 Marks	10 Marks	10 Marks	


**Total Technical Score 50 marks (Qualifying percentage is 70% which is equal to 35/50 marks)**

  
**Asif Nawaz**  
HOD (PSD)  
Co-Opted Member

  
**Sardar Pervaiz**  
Litigation Officer  
Member

  
**Wg Cdr (Retd) Asghar Khan**  
Senior Manager Material Management  
Chairman

  
**Dr. Anila Riyaz**  
Chairperson Pathology  
Co-Opted Member

  
**Altaf Ur Rehman**  
Finance Director  
Member

**PART IV**

**DEMAND LIST.**

S.NO	Name of Items	Instruments	Avg. Cons./ month	QTY required (FY 26-27)
1	Glucose (Kits)	RR Basis	2	24
2	Creatinine (Kits)	RR Basis	5	60
3	ALK Phos (Kits)	RR Basis	6	72
4	ALT (Kits)	RR Basis	4	48
5	Albumin (Kits)	RR Basis	0.25	3
6	Urea (Kits)	RR Basis	5	60
7	CRP (Kits)	RR Basis	4	48
8	Uric Acid (Kits)	RR Basis	1	12
9	Amylase (Kits)	RR Basis	1.5	18
10	Cholestrol (Kits)	RR Basis	0.75	9
11	CKMB (Kits)	RR Basis	0.15	2
12	T.Bilirubin (Kits)	RR Basis	3	36
13	Calcium (Kits)	RR Basis	0.75	9
14	Triglyceride (Kits)	RR Basis	0.75	9
15	LDL (Kits)	RR Basis	1	12
16	CPK (Kits)	RR Basis	0.5	6
17	LDH (Kits)	RR Basis	1	6
18	GOT (Kits)	RR Basis	0.25	12
19	HBA1C (Kits)	RR Basis	15	180
20	HDL (Kits)	RR Basis	1	12
21	GGT (Kits)	RR Basis	0.2	3
22	ISE Mild Standard	RR Basis	3	36
23	ISE Buffer (Bottles)	RR Basis	3	36
24	ISE Reference (Bottles)	RR Basis	1	12
25	Direct Bilirubin (No)	RR Basis	2	24
26	Urine Micro Albumin	RR Basis	0.25	3
27	Lipase	RR Basis	0.125	2
28	Phosphorous (No)	RR Basis	0.25	3
29	Total Protein (No)	RR Basis	0.25	3
30	CSF Protein (Kits)	RR Basis	0.5	6
31	ABGS (Packs)	RR Basis	2	24
32	ABGs Fluid Flush (Packs)	RR Basis	2	24
33	T3 (Kits)	RR Basis	9	108
34	T4 (Kits)	RR Basis	9	108

35	Free T3	RR Basis	0.25	3
36	Free T4	RR Basis	0.25	3
37	TSH (Kits)	RR Basis	15	180
38	Trop-I (Kits)	RR Basis	21	252
39	Vit B12 (Kits)	RR Basis	0.5	6
40	Folate (Kits)	RR Basis	0.5	6
41	Ferritine (Kits)	RR Basis	3	36
42	CA-125 (Kits)	RR Basis	0.5	6
43	AFP (Kits)	RR Basis	0.5	6
44	B-HCG (Kits)	RR Basis	1.25	15
45	PSA (Kits)	RR Basis	0.5	6
46	VIT D3 LEVEL (Kits)	RR Basis	3	36
47	LH (Kits)	RR Basis	1	12
48	FSH (Kits)	RR Basis	1	12
49	Prolactin (Kits)	RR Basis	1	12
50	Testosterone (Kits)	RR Basis	0.5	6
51	HBsAg Elisa (Kits)	RR Basis	1	12
52	Anti HCV ELISA (Kits)	RR Basis	1	12
53	HIV ELISA (KITS)	RR Basis	0.25	3
54	Toxo IgG (Kits)	RR Basis	0.25	3
55	Toxo IgM (Kits)	RR Basis	0.25	3
56	Rubella IgG (Kits)	RR Basis	0.25	3
57	Rubella IgM (Kits)	RR Basis	0.25	3
58	Anti CCP (Kits)	RR Basis	1	12
59	CEA (Kits)	RR Basis	0.25	3
60	ACTH (Kits)	RR Basis	0.25	3
61	PTH (Kits)	RR Basis	0.25	3
62	Estrogen (Kits)	RR Basis	0.25	3
63	GH (Kits)	RR Basis	0.25	3
64	Insulin Level (Kits)	RR Basis	0.25	3
65	Cortisol (Kits)	RR Basis	0.25	3
66	Estrodiol (Kits)	RR Basis	0.25	3
67	IgF level (Kits)	RR Basis	0.25	3
68	DHES04 (Kits)	RR Basis	0.25	3
69	TSH Anti Receptor (Kits)	RR Basis	0.25	3
70	Thyroid Peroxidase (Kits)	RR Basis	0.25	3
71	Thyroglobin (Kits)	RR Basis	0.25	3
72	AMH level (Kits)	RR Basis	0.25	3
73	Diluent N.K (No)	RR Basis	60	720
74	Lyse (No)	RR Basis	35	420
75	Cleaner (No)	RR Basis	120	1440
76	PT(STAGO) (No)	RR Basis	2.5	30
77	APTT(STAGO) (No)	RR Basis	2.5	30

<b>78</b>	DESROBU (STAGO) (No)	RR Basis	1	12
<b>79</b>	CLEANER SOL SATAGO (No)	RR Basis	1	12
<b>80</b>	Blood Culture Bottles (Adult) (No)	RR Basis	450	5400
<b>81</b>	Blood Culture Bottles (Child) (No)	RR Basis	450	5400
<b>82</b>	Hb Electrophoresis (Kits)	RR Basis	1	12
<b>83</b>	Serum iron (KITS)	RR Basis	0.125	2
<b>84</b>	Progesteron (KITS)	RR Basis	0.125	2
<b>85</b>	Stool H. Pylori antigen test	RR Basis	125	1500
<b>86</b>	Pro BNP Kit (24Tests)	RR Basis	0.25	3
<b>87</b>	HIV PCR	RR Basis	0.25	3

## **PART VI**

### **CONTRACT AGREEMENT:**

#### **CONTRACT AGREEMENT FOR LABORATORY CHEMICAL ON REGENT BASIS**

**THIS CONTRACT** is made at on day\_\_\_ of \_\_\_\_\_ between the Hospital Director AMTI Abbottabad (hereinafter referred to as the “Purchaser”) of the first Part; and m/s \_\_\_\_\_ having its registered office at \_\_\_\_\_ (hereinafter called “the Supplier”) of the second part (hereinafter referred to individually as party and collectively as the “Parties”)

**Whereas** the Purchaser invited the bids of procurement of good Laboratory Chemical General Items in pursuance whereof m/s \_\_\_\_\_ being the Manufacturer/Importer in Pakistan and ancillary services offered to supply the required item (s); and whereas, the purchaser has accepted the bid by the Supplier;

**Now the parties to this contract agree to following;**

#### **ACCORDING TO THE AGREEMENT**

- 1 The supplier shall be responsible to deliver the stores at the premises of Health Institution i.e. AMIT Abbott bad/Hospital Director and shall not be entitled to any transportation charges.
- 2 All the supply shall conform to the specifications mentioned in approved list shall be freshly manufactured or as per rule in case of complain the stock will be returned or replaced free of cost with the standard quality within one month from the date of intimation to the supplier, and supplier shall also render himself liable to such other action as may be taken under the rules..
- 3 The Selection (Purchase) committee of AMTI can Blacklist or forfeit Call Deposit of the Manufacturer/Importer under Khyber Pakhtunkhwa Public Procurement of Goods, Works and Services Rules 2014 for non-supply, substitute supply, not fulfilling the contract agreement etc.
- 4 **SPECIAL PACKING & LABELING**
  - a) The item shall clearly indicate expiry date. The manufacturer shall ensure that the supplied item to Govt: Institute shall be stamped, the wording MTI ATH SUPPLY & NOT FOR SALE on Primary, secondary and Tertiary Label.
  - b) The items shall be packed in strong wooden or card board boxes with sufficient packing material inside to avoid breakage or damage during transportation.
  - c) The cold chain must be maintained for temperature sensitive items.
- 5 **Validity of Approved Rates**
- 6 The rates will be valid up to 30-06-2028 or till the finalization of new Contract.

## 7 **WARRANTY**

The supplier shall provide warranty on prescribed form.

Bills for payment in triplicate along with all other relevant documents shall be submitted to the Purchaser after complete supply of items. Income tax as per Govt policy will be deducted. An Income Tax Certificate will be issued by the concerned Hospital Director etc to the supplier. Similarly Sales Tax or any other Tax shall also be levied on the suppliers as per Govt policy during financial year. The payment will be made with maximum of 60 days after supply & after inspection & testing if deems necessary, In case any complaint or suspicious quality the sample will be analyzed through Provincial replaced with fresh stock on the risk & cost of the supplier.

- 8 In case of poor quality or non consumption of the any item the supplier will have to replace stock with other required approved item or return the stock on its own cost.
- 9 After approval of the rates the successor bidder must be provided agreement of judicial paper worth Rs.100/-
- 10 The equipment shall be installed initially for a period of three months on probation period and contract will be confirmed by Hospital Director after satisfactory report of the head of pathology department.
- 11 The firm will provide backup support with sufficient capacity an all accessories without any cost.
- 12 The firm will be bound to nominate an engineer who will visit the pathology department on daily basis to make equipment operational and rectify the report fault, failure to Fix the out of order equipments within 7 days the contract will be terminated, security be forfeited and the firm will be black listed. And the same will be done with the lab nominated by the firm at the risk and cost of supplier.
- 13 The firm will be bound to nominate a laboratory within one month after the contract agreement registered with the Health regulatory body within 1KM radius of ATH that in case if there comes problem with the machine of if the supply is delayed or any other reason the samples will be sent to the same lab and the same lab will perform all the test and all extra sampling and carrying charges on the cost of the supplier.
- 14 The Focal person as nominated by the Chairperson Pathology department will make all correspondence related to technical faults of the machine or other issues related to machine or FOC items with the focal person of the company for the smooth running.
- 15 The firm will certified that the rates quoted are not higher than the rates quoted in other institutions.
- 16 The firm will provide reagent of longest expiry dates, minimum having six months expiry.
- 17 The firm will provide consumable items like substrate, probe, wash. Sample cups, tube, UPS, generators, Request for Immediate Intervention Regarding the Persistent Non-Availability of Essential and Life-Saving Medicines computer printer with rolls, calibrators, controls at least two

QC Levels for each parameter on daily basis, distilled water, etc. without any additional charges i.e. free of cost.

- 18 The supply of stock/ free of cost items, under this agreement is required to be completed within 30 days or the period extended, after the receipt of the orders. The supplier may however avail 15 days extension with 3% penalty on the cost of non-supplied items and after the expiry of the said extension another 15 days can be availed but with total of 15% penalty on the cost of non-supplied items after 60 days the penalty will be 25% & the supply order shall be stand cancelled and same tests will be performed in the Laboratory nominated by the firm if the nominated lab didn't perform the test due to any reason then the kits will be purchased from the 2<sup>nd</sup> lowest bidder or from open market on the risk and cost of the firm. the penalty of free of cost items will be deducted from the cost of reagent/ items whose function is disturbed due to non supplied free of cost items. If the supplier didn't complete the supply within 90 days the order shall be stand cancelled & the Bid security will be forfeited and the firm will be blacklisted.
- 19 The shelf life in case of imported items must not be less than 70% and in case of local items 90% at the time of delivery.
- 20 In case of short expiry the Hospital Administration will communicate in writing minimum a one months before the expiry date for replacement with fresh stocks the firms will bound to replace the said short expire stock on its own expense, in case of expiry the lose will be deducted from the supplier.
- 21 The firm will provide free services/maintenance for smooth function of the equipment at its own cost and expert cover as well as free replacement of parts/services kit, control and calibrators well in time during period of contract.
- 22 If a supplier consistently fails to deliver on time, causing delays or disruptions in the supply chain particularly where such delays impact patient care management shall have the right to confiscate the supplier's equipment, forfeit the CDR or bank guarantee, and blacklist the company based on these grounds.
- 23 The supply of free of cost items such as control and calibrator under this agreement is required to be completed within 30 days or the period extended, after the receipt of the orders. The supplier may however avail 15 days extension with 3% penalty on the cost of non-supplied items and after the expiry of the said extension another 15 days can be availed but with total of 15% penalty on the cost of non-supplied items after 60 days with 25% penalty & the supply order shall be stand cancel and same will be purchased from 2<sup>nd</sup> lowest bidder or from open market on the risk and cost of the firm. the penalty of free of cost items may be consider from the supply order of the regent issued to the supplier for the same quarter.
- 24 The firm will supply all the supply as per purchase order in a whole and not be supplied partially the partial supply will NOT be accepted.

25 The rate of the firms will remain same throughout the period of contract and till the finalization of next tender contract.

**Hospital Director AMTI**

**PART - V**

**MACHINE SPECIFICATION:**

**FULLY AUTOMATED CHEMISTRY & IMMUNOASSAY ANALYZERS FOR CHEMICAL PATHOLOGY LABS  
OF MTI AYUB TEACHING HOSPITAL ABBOTTABAD**

63

TECHNICAL SPECIFICATIONS FOR MAIN & BACKUP ANALYZERS WITHISE		
S#	SPECIFICATION	DESCRIPTION
1	<b>Analytical System Description</b>	<ul style="list-style-type: none"> <li>Fully automated system having random access/ continues loading of the samples.</li> <li>System must have facility of stat tests.</li> </ul>
2	<b>Assay Types</b>	Endpoint, rate, fixed point and indirect ISE, IMT, ICT
3	<b>Analytical Methods &amp; principles</b>	<ul style="list-style-type: none"> <li>Colorimetry/ Spectrophotometry.</li> <li>Potentiometry / IMT, Indirect ISE (Sodium, Potassium &amp; Chloride), ICT, Turbidimetry.</li> </ul>
4	<b>Throughput</b>	<ul style="list-style-type: none"> <li>With IMT/ Indirect ISE and ICT equal or more than 1000 tests per hour.</li> </ul>
5	<b>Integrated Technology</b>	Must have integrated technology for IMT/ Indirect ISE, ICT & IA analysis with minimal maintenance.
6	<b>Operating System</b>	Latest windows based computer with touch screen monitor.
7	<b>Water Supply Information</b>	<ul style="list-style-type: none"> <li>Average water consumption: less than or equal to 35 liter/ hour.</li> <li>Water type: Deionized CAP type II/ RO water bacteria free.</li> </ul>
8	<b>Cuvettes</b>	Disposable or reusable/ washable reaction cuvette system.
9	<b>Onboard Cooling of reagents</b>	On board cooling for the reagents, preferably 2 – 8 °C.
10	<b>Sample Volume</b>	<ul style="list-style-type: none"> <li>Sample volume greater than 5 ul &amp; less than 15ul</li> </ul>
11	<b>Reagent Volume</b>	Minimum Reagent volume will be preferred
12	<b>Reagent Barcode</b>	All reagents must be auto-barcoded.
13	<b>Onboard Stability of Reagents</b>	<ul style="list-style-type: none"> <li>Onboard stability equal or more than 60 days</li> </ul>
14	<b>Sample Types</b>	Ability to use Serum, Plasma, Urine, Whole Blood and other fluids.
15	<b>Sample Tube types</b>	System must be capable of handling multiple tube types and sizes at the same time like primary and secondary e.g. gel tubes, serum cups etc.
16	<b>Sample Quality Analysis</b>	Liquid level sensing combined with pressure differential technology for enhanced bubble and clot detection ensuring accurate sampling will be preferred.

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17	<b>Make</b>	Reagents & analyzers both must be manufactured in USA, Japan or European Union or FDA approved.
18	<b>References</b>	There must be at least 2 Company references in well reputed private/tertiary care hospitals & laboratories of Federal Govt or KPK with highly satisfactory performance with reference address and telephone numbers.
19	<b>Certification</b>	<ul style="list-style-type: none"><li>• The Principal company should be ISO certified.</li></ul>
20	<b>Quality Control</b>	Built-in & automated QC management, Westgard rules, plotting and Levy Jennings graphs generation.
21	<b>Interfacing</b>	LIS interface.
22	<b>Bi-directional Barcode facility</b>	Bi-directional barcode facility
23	<b>Data Storage</b>	System should have capacity to store data of equal or more than 10,000 patient samples.
24	<b>Physical dimensions (HxWxD) &amp; Power Supply</b>	<ul style="list-style-type: none"><li>• Preferably less than 65 x 60 x 50 inches.</li><li>• 210 – 240 V.</li></ul>
25	<b>Temperature &amp; Humidity</b>	<ul style="list-style-type: none"><li>• Room temperature (18 – 30 °C).</li><li>• Humidity 40 – 80 % RH.</li></ul>
26	<b>Drain Requirement</b>	Built-in waste pump.
27	<b>Calibrators/ controls ready to use</b>	Clinical chemistry (cc) calibrators and controls should be preferably in ready to use form.

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TECHNICAL SPECIFICATIONS FOR IMMUNOASSAY ANALYZER		
S #	SPECIFICATION	DESCRIPTION
1	<b>Analytical System Description</b>	<ul style="list-style-type: none"> <li>Analyzer must be based on Chemiluminescence / Electro Chemiluminescence technology offering enhanced assay sensitivity and extended linearity.</li> <li>Fully automated system having random access / continuous loading of the samples.</li> </ul>
2	<b>STAT processing &amp; assay availability</b>	<ul style="list-style-type: none"> <li>Immediate STAT processing for fast and consistent turnaround</li> <li>Should have capability of STAT reporting parameters like Beta-HCG, TROP I.</li> </ul>
3	<b>Operating System</b>	Latest windows based computer with touchscreen monitor.
4	<b>No carry over</b>	No clinically significant sample tube to tube carryover.
5	<b>Onboard capacity &amp; refrigeration</b>	Onboard capacity of equal or more than 40 reagents at a time, along with onboard refrigeration.
6	<b>Through put</b>	<ul style="list-style-type: none"> <li>Throughput equal or more than 150 tests / hour.</li> </ul>
7	<b>Capability of tracking reagents onboard stability</b>	<p>The system should provide the capability of tracking reagents onboard stability in days/ hours for efficient reagent management to avoid wastage in slow running parameters.</p> <ul style="list-style-type: none"> <li>Onboard stability of IM reagents should be equal to or greater than 60 days.</li> </ul>
8	<b>Sample types</b>	Serum, plasma, urine, fluids and whole blood etc.
9	<b>Sample Tubes types</b>	System must be capable of handling multiple tube types and sizes at the same time like primary and secondary e.g. gel tubes, serum cups etc.
10	<b>Sample Quality Analysis</b>	<ul style="list-style-type: none"> <li>Liquid level sensing combined with pressure differential technology for enhanced bubble and clot detection ensuring accurate sampling will be preferred.</li> </ul>
11	<b>Bi-directional Barcode facility</b>	Bi-directional barcode facility
12	<b>Reagents &amp; calibrators/ controls in liquid form</b>	IA reagents, calibrators and controls should be liquid ready to use.
13	<b>Automated retest etc.</b>	Automated management of retest, reflex and dilution testing without operator intervention.

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68

14	<b>Broad IA menu</b>	<ul style="list-style-type: none"> <li>System should offer a broad IA menu including complete Thyroid, Tumor markers, Fertility Profile, cardiac profile including CKMB, Transplant, therapeutic drugs, reproductive and congenital profile, viral profiles, IL6, &amp; PCT etc.</li> </ul>
15	<b>Make</b>	Reagents & analyzers both must be manufactured in USA, Japan or European Union or FDA approved
16	<b>References</b>	<ul style="list-style-type: none"> <li>There must be at least 2 Company references in well reputed private/tertiary care hospitals &amp; laboratories of Federal Govt or <del>KK</del> with highly satisfactory performance with reference address and telephone numbers.</li> </ul>
17	<b>Quality Control</b>	Built-in & automated QC management, Westgard rules, plotting and Levy Jennings graphs generation.
18	<b>Certification</b>	<ul style="list-style-type: none"> <li>The Principal company should be ISO certified.</li> <li>Instrument and kits should be FDA/CEmarked (certificate must be provided).</li> </ul>
19	<b>Interfacing</b>	LIS interface
20	<b>Storage</b>	System should have capacity to store data of equal or more than 10,000 patient samples.

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TECHNICAL SPECIFICATIONS OF ABGs ANALYZERS ON RR BASIS			
S #	SPECIFICATION	DESCRIPTION	
1	Analytical System Description	Automated system, must have facility of stat tests	
2	Assay Types	Direct ISE	
3	Analytical Methods & principles	Potentiometry / Direct ISE	
4	Measuring Time	Upto 125 Seconds	
5	Sample Volume	Syringe $\leq 120$ uL, Capillary $\leq 100$ uL, Preferably have micro sample mode $\leq 60$ uL	
6	Stability of Calibration	Calibration should be stable upto 8 hours	
7	Sample Type & Mode	<ul style="list-style-type: none"> <li>Whole blood (Analyzer with additional facility of electrolytes on serum sample will be preferred)</li> <li>Syringe &amp; Capillary mode</li> </ul>	
8	Measured Parameters & Unit Range of Operation (with electrolytes)	pH	6.500 - 8.000
		pCO <sub>2</sub> mmHg	5.0 - 150.0
		pO <sub>2</sub> mmHg	5.0 - 700.0
		Na mmol/L	80 - 200
		K mmol/L	1.0 - 20.0
		iCa mmol/L	0.25 - 5.00
		Cl <sup>-</sup> mmol/L	40 - 160
9	Measured Parameters & Unit Range of Operation (without electrolytes)	pH	6.500 - 8.000
		pCO <sub>2</sub> mmHg	5.0 - 150.0
		pO <sub>2</sub> mmHg	5.0 - 700.0
10	Calculated Parameters & Unit Range	O <sub>2</sub> SAT %	40.0 - 100.0
		O <sub>2</sub> CT mL/dL	5.0 - 40.0
		BE <sub>b</sub> mmol/L	-25.0 - 25.0
		BE <sub>ecf</sub> mmol/L	-25.0 - 25.0
		pO <sub>2</sub> (A-a) mmHg	5.0 - 700.0
		pO <sub>2</sub> (a/A) mmHg	0.00 - 1.00
		iCa (7.4) mmol/L	0.20 - 5.00
		pH(T) pH	6.500 - 8.000
		pCO <sub>2</sub> (T) mmHg	5.0 - 150.0
		pO <sub>2</sub> (T) mmHg	5.0 - 700.0
		pO <sub>2</sub> (A-a) (T) mmHg	5.0 - 700.0

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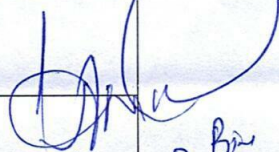
		pO2(a/A) (T) mmHg 0.00 – 1.00	
		ctHb (est) g/dL 3.3 – 23.3	
11	<b>Working temperature &amp; Humidity</b>	Preferably Room temperature	
		Humidity 5 – 85 % RH	
12	<b>Data Input parameters</b>	Patient ID / Operator ID etc.	
13	<b>References</b>	There must be at least 1 - 3 machines in the tertiary care hospital or well reputed laboratory in KPK with highly satisfactory results with reference address and telephone numbers.	
14	<b>Quality Control</b>	<ul style="list-style-type: none"> <li>The firm will supply the QC of at least 2 levels to be run on daily basis on the analyzers</li> <li>Built-in &amp; automated QC management (Preferably)</li> </ul>	
15	<b>Data Storage</b>	System should have capacity to store maximum patient result data (100 tests or more)	
16	<b>Operating System</b>	Latest touch screen monitor/ Numeric key board	
17	<b>Reagent Barcode</b>	All reagents must be auto-barcoded	
18	<b>Calibration Type</b>	Automatic or on-demand	
19	<b>Make</b>	Analyzers must be Imported or FDA approved	
20	<b>Certification</b>	The manufacturing company should be ISO certified	
		Instrument and kits must be FDA approved or CE marked (certificate must be provided) or equivalent. Preferably FDA approved	
21	<b>Drain Requirement</b>	Built-in waste pump	

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Coagulation Analyzer  
**Fully Automated Coagulation Analyzer**  
 (Reagent Basis)

71

<b>FDA / CE APPROVED WITH ISO 9001 CERTIFICATION</b>	
Principles	Multi-Wave Detection System Transmitted Light Detection Method Clotting Assays: 405, 660, 800nm (Percentage Detection Method) Chromogenic Assays: 405 nm (Rate Method) Immunoassay: 575, 800 nm (Rate Method, VL in Method)
Detector	8 Channels for Clotting Assays, Chromogenic Assays and Immunoassays The transmitted Light (or AD Value) is detected every 0.1 sec max reading is 1800 sec
Parameters	PT, APTT, Fbg, Dabigatran, Batroxobin Time (Reptilase), TT, Extrinsic Factors (II, V, VII, X), Intrinsic Factors (VIII, IX, XI, XII), PS, PC, LA, ProC Global Chromomeric Assays: AT-III, PLG, a2-AP, PC, FVIII, Heparin, Rivaroxaban, CI - Inhibitor Immunoassays: D-Dimer, vWF :Ag, vWF Ac, Free protein S, FDP
Throughput	PT: 100 to 140 test/hr, PT, APTT: 100 to 110 test/hr, PT, APTT, Fbg, DD: 60 to 80 test/hr
Reagent Holder	25 to 30 position (15C) 5 positions (room temperature)
Auto Sampler	Capacity of 40 to 50 samples (rack type)
Reaction Tubes	Automatically
Quality Control	Westgard rule
Data Storage	Up to 3000 samples results with reaction curves
<b>Printer Out</b>	Graphic and Data Printer
Power Requirement	100 to 250 VAC (50 or 60 Hz)
<b>Made</b>	Japan/USA/EU OR FDA Approved
Interfacing	HMIS

  
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 AP Hematology  
 18/2/2026

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Specifications Hematology Analyzer

72


- **FDA/CE: Approved with ISO 9001 Certification**
- Technology: Coulter
- Parameters: 20 Parameter should be available following parameter on whole blood mode and pre-diluted mode
- Parameters: WBC,RBC HGB,HCT, MCV,MCH, MCHC, PLT, LYMP%, MIX %, NEUT%, LYMP#,MIX#, NEUT #, RWD-SD, RWD-CV,PWD-SD,MPV, PLCR, PCT
- Histogram: At least three Histogram must be available
- Through put : 60 sample per Hour or more
- Sample Volume:20-50ul for whole blood and pre-diluted mode
- Indication of Data: Graphic Display with Back Light
- Printer: Built in Graphics Printer
- Sample Distribution: Sample distribution with sample rotator valve (SRV) this is accurate for Distribution of sample volume
- Interfacing: Capability of interact with our HIMS of data transfer through serial port availability of Barcode reader for sample and reagent identification along with storage computer compatibility
- Reagent and Sample Identification: Bar code for reagent and sample bar code identification
- Sample Numbers :Sample numbers is in 12 -15 numeric digits
- Storage Data: 30,000 - 35,000 or more patient sample results
- Reagents: Reagent should be non toxic, Cyanide free reagents and genuine Reagent of company
- Quality Control: Built-in & automated QC management, Westgard rules, plotting and Levy Jennings graphs generation.
- Probe Washing: Automatic sample probe washing
- Quality Control : Controls should be preferably in ready to use form.
- Analyzers: Installation of latest model of brand new hematology analyzer with electricity backup
- Workshop & Trained Engineers: Established work-shop and qualified Engineer
- Country or Origin Machine: EU, USA, Japan Or FDA Approved
- Temp and Humidity: Operating Temp should be 15 30 C. Humidity 30% - 85%
- LIS: Should support bidirectional LIS support
- Reference: There must be at least 2 Company references in well reputed private/tertiary care hospitals & laboratories of Federal Govt or KPK with highly satisfactory performance with reference address and telephone numbers.

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AD Hematology  
18/2/2026*

## SPECIFICATIONS

### Hb/Capillary Electrophoresis

Principle	Capillary Electrophoresis
Product Description:	Hemoglobin Electrophoresis Equipment
Power Requirements	<ul style="list-style-type: none"> <li>➤ Voltage: 100-240 V (AC)</li> <li>➤ Frequency: 50/60 Hz</li> </ul>
Made	Europe, USA, Japan OR FDA approved
Throughput (tests/hour)	<p><b>Samples per hour</b> 110-130</p> <ul style="list-style-type: none"> <li>➤ PROTEIN(E) (serum): 70-80 tests/hour</li> <li>➤ PROTEIN(E) (urine): 70-80 tests/hour</li> <li>➤ IMMUNOTYPING (serum or urine): 70-80 tests/hour</li> <li>➤ Hb A1c: 40-50 tests/hour</li> <li>➤ HEMOGLOBIN(E): 40-50 tests/hour</li> <li>➤ ICDT: 40-50 tests/hour</li> </ul>
Reagent management	4 open positions for main reagents, temperature-controlled section for secondary reagent (antisera), automated reagent identification, change buffer without interrupting the testing.
Accessories:	<ul style="list-style-type: none"> <li>➤ Standard Accessories</li> <li>➤ Compatible UPS &amp; Printer</li> </ul>
Ergonomics	<ul style="list-style-type: none"> <li>➤ Embedded user interface with a touch screen.</li> <li>➤ Automated technique change.</li> <li>➤ Automatic start-up and shut-down.</li> <li>➤ Visual alarms (with instrument notifications).</li> <li>➤ Dedicated workstation to pilot the instrument and manage results.</li> </ul>
Reagents	<ul style="list-style-type: none"> <li>➤ Protein(Capi 3 Protein)</li> <li>➤ Hemoglobin( Capi 3 Hemoglobin)</li> <li>➤ HbA1c(Capi 3 HbA1c)</li> <li>➤ Immunotyping( Capi 3 immunotyping)</li> </ul>
Interfacing Available	HMIS
Barcode Reader	Internal
Quality Control	Onboard Values
Reagent holder	<ul style="list-style-type: none"> <li>➤ Positions: 4 open positions for main reagents.</li> <li>➤ Temperature Control: Dedicated temperature-controlled section for secondary reagents (e.g., antisera).</li> <li>➤ Automated Identification: Reagents are automatically identified via barcode or similar technology.</li> <li>➤ Continuous Operation: Allows for reagent change or refill without interrupting ongoing tests.</li> </ul>

  
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(74)

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## URINE ANALYZER SPECIFICATION (FDA APPROVED)

*S. H. Anwar*

Sample Requirement	Crude urine can be tested directly without centrifugation
Sample Volume	Sample aspiration volume <3ml(for dry chemistry +formed elements)
Testing Speed	dry chemistry :220 sample/hour Formed elements: 60-80 samples/hour 91 analyzer) Dry chemistry +formed elements :60-80 sample/hour (1 analyzer)
Results Units	XX pcs/ul(international quantitative units);or XX pcs/HP (quantitative report)
Sample Loading	Rail-mounted sample loading device ;the sample loading compartment can be hold 100 sample at one time
Physical test items	Color,turbidity,specific gravity, conductivity (standard)
Test Strip	12(ku -12B)or 14 (ku-14A) parameter available ;you can select different test strips according to your needs.
Test Strip compartment capacity	≥300 test strips
STAT function	An STAT position is available for testing STAT sample at any time
Test channel	Flow counting cell;≥4 channels
Accuracy	The different between the dry chemical analysis results and label – value of corresponding reference solution is not more than 1 order of magnitude ;detection accuracy for formed elements:≥95%
Repeatability	CV ≤7%
Carry-over rate	≤0.02%
Microscopic images	6 shooting modes; ≥224 camera views (the number of camera views can be customized)
Shooting mode	Scanning layer –by –layer in each field of view;≥5 shooting layers; the effect of reading images is similar to microscopy
Scanner function	Built-in barcode scanner, scanning sample tubes at 360 rotation
Dimension	77.8cm(L),71.3 (W) ,65.0cm (H)

*S. H. Anwar*  
3-2-2026

(Dr. Sadaf Anwar)