

**SCHOOL OF BIOLOGICAL SCIENCES
UNIVERSITY OF THE PUNJAB
[TEL:042-35953150](tel:042-35953150)**

TENDER DOCUMENT

FOR

**“PROCUREMENT OF SOLAR PV MODULES, INVERTER WITH
INSTALLATION, COMMISSIONING, SERVICE AND MAINTENANCE OF 120
KW SOLAR SYSTEM”**

**01. Solar PV Modules/Panels
JA/Jinko/Canadian or equivalent**

Parameters	Min. Specifications required
Module Make	Tier 1, Brand should be verifiable for the procurement year
PV Module Capacity	600 Watts or above (as per design)
PV Module Type	Type: N-Type (HJT/TopCon or equivalent)
Cell Quality	A Grade (verifiable)
Module Efficiency	22% or higher
Power Tolerance	Must be + 3% or more
Operating cell Temperature	minus 40C to positive 85C (-40C - +85C)
bypass diode	AS per design
Certification	IEC 61215, IEC 61730, IEC 61439, IEC 60947-3 as amended to date, PID FREE
Frame (L3 structure)	Must withstand 5400 PA impulse Load
Junction box	IP 67 or better
Product Warranty and Guarantee	10 years product replacement warranty. Power output within 10 years shall not fall below 90%. Power output within 25 years shall not fall below 80%.
	12 years full replacement of module, if the major components malfunctioning. PV module performance guarantee 25 years or more.

**02. Inverter On-Grid
Goodewe/Huawei/Solis or equivalent (Tier -1)**

Parameters	Min. Specifications required
Inverter Manufacturer	Renowned and verifiable brand having successful history in similar climatic conditions.
Inverter Type	3-Phase On-Grid
Min. Output Power	115KW
IP Protection	IP 68 or Better
Operating temperature	-25°C to 60°C
Communication	With Remote Monitoring Feature, Mobile App, Web server user interface, Cloud Connected. Real Time System Monitoring. Alerts, Faults and Warning data display.
Minimum Applicable Standards and Compliances	IEC62109-1/-2, IEC62116, IEC60068, IEC61683, IEC 61727
Additional Feature	IV curve tester should be built in, with no external

Parameters	Min. Specifications required
	system. Built-In Advanced Fault Detection. Smart String Level Detection should be available on board
Warranty	Standard replacement warranty; support maximum extension warranty will be preferred.

03. Installation and Commissioning

- Supervisory Control & Data Acquisition (SCADA)
- **PV Mounting Structure & Civil Work as per Given Design.**
- Electrical design is as per the bidder's expertise but follows the minimum standards given below
- Main Distribution Box (Breakers & Surge Arrestors)
- Cabling
- Accessories (MC4 Connectors, PVC Pipes, Bends, Sockets, Thimbles & Ducts)
- Lightning Protection System
- Nut Bolts, Screws Anchors, Thimbles, Washers etc.
- Installation, Commissioning, Testing
- Operations and Maintenance (O&M) Services for 02 Years

MINIMUM TECHNICAL SPECIFICATIONS

Note: The technical specifications of the solar panels and allied equipment must fulfil the standard requirements (PSS & IEC) as per the import policy SRO 604(I)/2019, Dated 28th May 2019. Verifiable Test certifications for the required standards must be [provided with the technical proposals. In case of a discrepancy, the mentioned S. R. O shall prevail.

I. SOLAR PV PANEL MOUNTING STRUCTURE

S.NO	DESCRIPTIONS	REQUIREMENTS
The mounting structure will be fixed, on-ground, tilted at an appropriate angle, and made of Aluminum material. Following are tentative outlines; the actual design will be site-dependent and may vary.		
1	Roof structure material	Hot dip galvanized (min 90 microns) or an aluminum frame with more than 20 years of proven life
2	Material Gauge	SWG 14 or better /as per design. The fastener (nut, bolt, and clamp) must be of stainless-steel type.
3	Material and wind loading	<ul style="list-style-type: none"> • The mounting structure to support the module must be made of durable material, resistant to sand storms, high wind speed of up to 140km/s • Corrosion (passing the salt spray test IEC 61701, among other verifications) and UV-induced degradation. • The material must be compatible with the module frame material to avoid any adverse electrolytic/ galvanic effects.
4	Civil work	<ul style="list-style-type: none"> • Structure should support the existing roof top/ground mounting. The design shall be able to withstand the maximum wind loading requirements of 140km/s. The design shall be supported with proper calculations. • The bidder shall guarantee the stability of the supporting structure after installation. • The epoxy injection must be carried out to fill the roof concrete cracks and drill holes. • Pointed dead –loads on the rooftop surface must be avoided. • <i>Water drainage must not be considered; separate WATER CHANNELS must be maintained for water drainage.</i> • The supporting structure must be considered grounded for short circuit and lightning protection through independent earthing.

II. CABLING, COMBINER BOXES AND EARTHING

1. All exposed wiring (with the possible exception of the module interconnects) must be covered in conduits/ducts. Wiring through roofing must form a waterproof seal (applicable for wiring only).

2. For conduit and duct, flexible PVC material with suitable size must be used.
3. Field-installed wiring must be joined using terminal strips or screw connectors. Soldering or crimping in the field must be avoided if at all possible. Wire nuts are not allowed. The rated current carrying capacity of the joint must not be less than the circuit current rating. All connections must be made in junction boxes. Fittings for lights, switches, and polarity-sensitive socket outlets may be used as junction boxes where practical.
4. All wiring shall be color-coded as per IEC standards and labelled at the termination point.
5. No conduit or fitting shall be attached directly to thatch or any other non-supportive surface.
6. Especially avoid installing the conduit directly over the roof. There must be a distance not less than 2 inches between the roof surface and the conduit/duct.
7. Cables must be joined by the use of junction boxes, screw connectors, and block connectors; MC4 or equivalent connectors must be used for PV joints.
8. All wires must be terminated with proper end sleeves and wire thimbles with different colors for positive and negative polarity.
9. Size, voltage grade and manufacturer name should be printed on every cable.
10. Cable Voltage drop specifications are as follows and must be verified through software simulation/calculations.

Sr. No.	ITEM	REQUIREMENTS
11	Solar PV to Inverter;	6mm Double PVC tin coated (Voltage drops less than 2 % tin-coated (stranded and flexible), 99.9% pure copper fire resistive insulation.(GM or FAST)
12	Grid/LV Distribution Board to Inverter	95mm four core Voltage drops less than 2%, and 99.9% is pure copper fire resistive insulation. (GM or FAST <i>or equivalent</i>)
13	Earthing Wire: 1.Bare Copper for Bore and lightning arrestor 2.Panel to Panel and inverter Earthing	1.Bare Copper for Bore and lightning Arrestor 16mm or higher pure Copper 2.Panel to Panel and inverter Earthing 4mm Pure copper (GM or FAST or equivalent)

14. Earthing as per NEPRA net metering rules for all sites.

III. SOLAR PV COMBINER BOX (JUNCTION BOX)

Sr. No.	PARAMETERS	DESCRIPTION
1	Solar PV Input	As per design
2	Solar PV Max. Input Voltage	1000VDC (IEC) or Higher
3	No. of Solar PV array inputs	As per design
4	Protections	Lightening Protection
		DC Over Voltage protection
		Short Circuit Protection
		Fuse/ Breaker Protection
5	Protection Class	IP 67 or better
6	Relative humidity	10~90 %

IV. LIGHTNING/AIR TERMINATION ROD AND SURGE PROTECTION DEVICES

Sr. No.	PARAMETERS	MIN. SPECIFICATIONS REQUIRED
1	Air termination rod material	99 % Pure Copper
2	Air termination rod length	As per design

3	Earthing Pit	Less than 5 Ohm (NEC codes) 99% Pure Copper plate/rod. Size and weight of plate/rod varies from site to site.
4	Air termination rod diameter	As per design
5	Air termination rod	As per design
6	Cable for structure	2.5 mm ² or higher, 99.99% pure copper (strip or single conductor) (GM or Fast)
7	Cable for interconnecting/ Grounding metal structure	6 mm ² or higher, 99.99% pure copper(GM or Fast)
8	Insulated Spacer	As per design
9	Cable Bracket	As per design
10	Stand-Fang Fix system	As per design
11	Recommended method for calculation	Rolling sphere method
12	Functional Compliance	IEC 62305-3 (EN62305-3) IEC 62305-3 (EN62305-3) or equivalent

V. SURGE ARRESTER

Sr. No.	PARAMETERS	MIN. SPECIFICATIONS REQUIRED
1	Applications	Both DC side & AC sides
2	Discharge current (I max)	Min. 20 kA (8/20 μ sec)
3	Impulse current (I imp)	Min. 25 kA (10/350 μ sec)
4	Response Time	≤ 50 n sec
5	Leakage current	≤ 1 mA
6	Die Electric strength	2000 V AC @ 1 minute
7	Protection class	Class 2 (Type 2) minimum
8	Discharge Voltage	600 V DC (Line to earth) or above (matching the size of the inverter)
9	Ingress Protection	Minimum IP 20 (placed in IP 65 box along with other protections)
10	Short circuit withstands capacity	min. 30 kA

Note: The external surge arrestors/ protection AC/DC may be added by the procuring department/ agency, if required, according to the specific site requirement.

2.1 OTHER FEATURES

- (i) The PV Module(s) should be warranted for a minimum of 25 years from the date of supply. The warranty card to be supplied with the system must contain the details of the system. The manufacturers can also provide additional information about the system and conditions of warranty as necessary.
- (ii) Adequate space should be provided behind the PV module/array to allow unobstructed airflow for passive cooling.
- (iii) Cable of appropriate size should be utilized to keep electrical losses to a bare minimum (e.g., the length of the wire from module to Combiner Box and Combiner Box to Hybrid Inverter should be as minimal as possible).

INSTRUCTION AND OPERATIONAL MAINTENANCE MANUALS

- ✓ Two copies of the Instruction and Operation and Maintenance Manual in English and local language should be provided with the system.
- ✓ The manual shall be furnished at the time of dispatch of the equipment and shall include the following aspects:
 - a. Precautions during unpacking.

- b. Instructions for handling at the site.
- c. Erection drawings with written assembly instructions that would enable the purchaser to carry out erection with his personnel if opted by him.
- d. Detailed instructions and procedures for the installation operation and maintenance.
- e. Pre-commissioning tests.
- f. About solar PV system – its components and expected performance.
- g. Clear instructions about the mounting of PV module (s).
- h. About electronics.
- i. DOs and DONTs.
- j. Principle of Operation of various equipment.
- k. Safety and reliability aspects.
- l. Metering scheme.
- m. About power conditioning units' software and controls.
- n. Clear instructions on regular maintenance and troubleshooting of solar power plant.
- o. Name and address of the person or service center to be contacted in case of failure or complaint.
- p. Outline dimension drawings showing relevant cross-sectional views, earthing details, and constructional features: rated voltages, current, etc.
- q. Extension of Load & all matters relevant to LESCO will be addressed by the institute.

TORS OF O&M: (OPERATIONAL AND MAINTENANCE SERVICE)

The contractor must provide operation and maintenance services for a period of 2 years including one (01) year defect liability period following which it must provide the Government institutes with comprehensive Operation and Maintenance manuals. The responsibility of the contractor includes but is not limited to ensuring a remote monitoring facility at the site specified by the client, periodic preventive maintenance, corrective maintenance, and capacity building of govt. Institute personnel and reporting must be provided as per the O&M form.

The contractor will provide a preventive schedule of maintenance, activities to be carried out during maintenance, skill, and competency of the maintenance personnel. The contractor will provide the date of visit and a list of authorized personnel to visit the Government institutes for maintenance activities. All maintenance personnel must carry an identity card to enter the facility. The Government institute may seek a police verification report for maintenance workers.

Key points that should be addressed in the Contractor's O&M plan shall include the following but are not limited to:

- 1- The contractor has trained manpower and shared relevant and necessary information, instructions and training material with the beneficiary focal person for later use.
- 2- The instruction manual and layouts are placed at the necessary locations, such as distribution board, for immediate reference.
- 3- Complaint registers and possible filing instructions for complaints have been informed to the beneficiary focal person and staff.
- 4- The complaint or feedback number and contact person name of the contractor for this purpose should be on call.
- 5- The equipment warranties should be ensured, especially for major equipment
- 6- The cleaning mechanism should be dealt with permission (through contractual obligation) from the beneficiary office in case the contractor utilizes resources from the premises.
- 7- Contractor's immediate response to a registered complaint by the beneficiary office, its corrective and preventive action.
- 8- The data logging and monitoring system should work properly, with no cases of missing data. A flag should be generated in case of fault.
- 9- Generation data of the system should be available all the time for access of client.
- 10- Site conditions such as shadings, rooftop condition, cables conduits, inverter filters, modules cleaning are properly and timely done.

2.2 HARMONICS STANDARD

As per the standard of IEEE 519, the permissible individual harmonics level shall be less than 3% (for both voltage and current harmonics), and Total Harmonics Distortion (THD) for both voltage and current harmonics of the system shall be less than 5%.

2.3 TECHNICAL AND INTERCONNECTION REQUIREMENTS

Overall conditions of service	State Distribution/Supply Code	State Distribution/Supply Code
Overall Grid Standards	Central Electricity Authority (Grid Standard) Regulations 2010	Central Electricity Authority (Grid Standard) Regulations 2010
Equipment	BIS / IEC / IEEE	BIS / IEC / IEEE
Meters	Central Electricity Authority (Installation & operation of meters) Regulation 2006 as amended from time to time	Central Electricity Authority (Installation & operation of meters) Regulation 2006 as amended from time to time
Safety and supply	Central Electricity Authority (measures of safety and electricity supply) Regulations, 2010	Central Electricity Authority (measures of safety and electricity supply) Regulations, 2010
Harmonic Requirements Harmonic Current	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013
Synchronization	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013	Photovoltaic system must be equipped with a grid frequency synchronization device. Every time the generating station is synchronized to the electricity system. It shall not cause voltage fluctuation greater than +/- 5% at the point of connection.
Voltage	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013	The voltage-operating window should minimize nuisance tripping and should be under the operating range of 80% to 110% of the nominal connected voltage. Beyond a clearing time of 2 second, the photovoltaic system must isolate itself from the grid.
Flicker	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013	Operation of Photovoltaic system should not cause
Frequency	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013	When the Distribution system frequency deviates outside the specified conditions (50.5 Hz on upper side and 47.5 Hz on lower side), There should be over and under frequency trip functions with a clearing time of 0.2 seconds.
DC injection	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013	Photovoltaic system should not inject DC power more than 0.5% of full rated output at the interconnection point or 1% of rated inverter output current into distribution system under any operating conditions.
Power Factor	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013	The photovoltaic system in the event of fault, voltage or frequency variations must island/disconnect itself within IEC standard on stipulated period.
Overload and overheat	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013	The inverter should have the facility to automatically switch off in case of overload or overheating and should restart when normal conditions are restored.
Paralleling Device	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013	Paralleling device of photovoltaic system shall be capable of withstanding 220% of the normal voltage at the interconnection point.

Any minor equipment and material that may not be specifically mentioned in this specification but are required to make the system complete in every respect in accordance with technical specification shall be deemed to have been covered under the scope of this specification and shall be provided by the tenderer/supplier within the quote.

2.4 MONITORING & DATA LOGGING

A state-of-the-art data monitoring/logging system is required on site, capable of local and remote monitoring to provide timely and accurate plant performance continuously. All monitoring data will be transmitted to the control room for logging and monitoring each inverter's performance. Data logging software is employed to automatically store the measured data from the PV Plant over a prolonged time period. The control room shall have a control panel containing all the measuring instruments, such as voltmeter, ammeter, frequency meter and electronic energy meter, for measuring the deliverable units sold to the utility grid.

GENERAL TERMS AND CONDITIONS: -

1. General:

- 1.1** Any offer not received as per terms & conditions of the tender enquiry is liable to be ignored and also no offer shall be considered if:
 - a.** The bid is not prepared and submitted as per instructions given in the tender document.
 - b.** without earnest money.
 - c.** Received without detailed technical literature, in original, from the manufacturer
 - d.** Received without verifiable office addresses, Telephone No., E-mail addresses of the bidding firm as well as the manufacturer
 - e.** The offer is ambiguous.
 - f.** The offer is received by fax or e-mail.
 - g.** The offer is from a black listed firm.
 - h.** Offer received with shorter validity than required.
 - i.** The offer is not conforming to specifications indicated in the tender enquiry.
 - j.** Any conditional offer.
 - 1.2** The tender must be uploaded on EPADS, otherwise will not be accepted.
 - 1.3** Offered rates will remain valid for a period of **120 days** after bid opening. No change in price will be made in case of Pak rupees depreciation against foreign currency.
 - 1.4** In case, the bidder fails to execute the contract in accordance with the terms and conditions laid down in the contract, bid money will be forfeited.
 - 1.5** The bidder should indicate their National Income Tax No. / Sales Tax No. and circle of Income Tax department.
 - 1.6** The contractor will be responsible for the free replacement of supplied item if the same is found to be substandard and or at variance with the specifications given in the supply order. Items offered of specifications superior to the one specified in the tender enquiry may be accepted subject to the approval of competent authority.
 - 1.7** Items should be brand new and by original manufacturers **having well reputed history**. Provision of verifiable office addresses, telephone numbers and E-mail addresses of original manufacturers will be mandatory.
 - 1.8** Offered rates will be on basis of free replacement (installation/commissioning).
 - 1.9** All tenders can be cancelled by the Competent Authority before acceptance of the bid (s) as per PPRA Rules **2004**, Clause **33**.
 - 1.10** Offer must be supported with comprehensive technical literature **in original and containing complete details of the manufacturer (i.e., official addresses, official website, telephone numbers E-mail addresses and of customer support etc.)**. Ambiguous documents may not be accepted. Provision of specifications in original (English) for the materials/goods offered **will be mandatory**. Bid is liable to be disqualified if relevant literature/specifications are not attached with the offer.
 - 1.11** Bids will be evaluated by the departmental Technical Committee on cost and quality basis.
 - 1.12** prices should be inclusive GST.
 - 1.13** Bids should be on **FOR basis Lahore**.
 - 1.14** Please avoid quoting alternative offers. Alternative offers will not be considered.
- ##### **2. Delivery Period:**
- 2.1** **Delivery/completion period is 90 days after issuance of Purchase Order.**

3. Extension of Delivery Period:

In special circumstances, request for extension of delivery period may be considered by the approving authority on the written request of the firm before the target date of supply.

4. Cancellation & Penalty of delay:

4.1 In case of delayed supply, the purchaser may cancel the supply order or impose appropriate penalty. The penalty will be as per University laid down rule (i.e., deduction would be made @ 2% per month in case of late delivery).

5. Payment to the Contractor:

5.1 Payment will be made through crossed cheque to the supplier/contractor against invoice after 100% completion of delivery and commissioning after satisfactory performance against the purchase order/contract.

5.2 Payment against partial supply will not be made.

6. Bid Money:

6.1 Fix bid money of 02% for the estimated cost of the tender will have to be deposited in the office of SBS before opening the tender. It should be in the form of Pay Order/Demand Draft in favour of Director General, School of Biological Sciences, University of the Punjab, Lahore.

6.2 Bid money of successful bidder shall be refunded on successful completion of the warranty period. Whereas bid money of unsuccessful bidders will be refunded on the approval of the tender by the Competent Authority.

7. Inspection:

The project will be inspected by Technical Committee/personals of the School of Biological Sciences, University of the Punjab, Lahore who will coordinate with the contractor in lieu of required job as per tender requirements, specifications quality and terms of the contract.

8. Deduction of Taxes:

Any taxes (if applicable) will be deducted while making payment as per Government instructions/notifications.

9. Payment of Sales & Other Taxes, Duties, Levies:

All taxes and any other duties if applicable will be liability of the firm. Purchase & Services shall be made from the firm registered with income tax and sales tax under Punjab Revenue Authority if applicable.

10. Dispute Resolution:

In case of any dispute before or after the execution of contract, matter will be resolved as per PPRA Rules 2004 Clause 48 & 49.

11. Preparation of Bid:

Bids should be uploaded in EPADS. Following points may be kept in mind while preparing Technical Bid:

a.	Make & Type of quoted items (Technical compliance with BoQ)	Provide detail of items, brands, country of origin with complete specification being offered on company letter head (duly signed and stamped beneath by the bidder).
b.	Brief Profile of the Firm	Mention 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.
c.	Details of Experience	Provide list of contracts in-hand/ performed by the bidder so far clearly mentioning for each contract, the name of organization, complete address, year of contract, contract value, date of contract award and date of contract completion.
d.	Reliability of quoted Brand & Country of Origin.	Provide supported documents like original brochures/technical literature depicting detailed specifications as well as complete details of the manufacturer.
e.	Bidder's corporate Status	Whether the bidder firm is: Manufacturer, Business Partner of Manufacturer, Sole Distributor of Manufacturer, Authorized Distributor/Agent/Reseller/Supplier or any other affiliation Note: Provide certificate/letter issued from manufacturer.
f.	Technical Resources & Services Support	Details of firm's ability / facility available for provision, installation, upgrading, training and after sales services.

g.	Warranty/Guarantee	The bidder shall offer at least 01 year warranty/guarantee (where applicable) or standard warranty terms of manufacturer and free of cost after sale service.
h.	Consignment completion period	Firms should specify the completion period from the date of issue of Purchase / Work Order

12. Eligibility Criteria:

- a. Manufacturers, Exclusive/Authorized Dealers, Suppliers (Firms).
- b. Copies of Sale Tax/Income Tax registration certificates.
- c. For quoted items, distributor must submit the sole distribution certificate with bid that will be checked later on and verified from the issuing company.
- d. At the time of delivery, import documents will be checked.
- e. All software, accessories, consumables etc. required for complete functioning of an equipment/scientific instrument should be included in the quoted price. No quote for any optional item will be entertained unless stated otherwise.
- g. The bidders also have to provide documents proving the availability of trained certified engineer (s) for installation and services of their quoted scientific instruments.
- h. Warranty will be at least for one year preferably for longer period. Warranty period will start from the date of installation.

13. Application

These General Conditions shall apply to the extent that they are not superseded by provisions of other parts of the Contract.

14. Standards

The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications, and, when no applicable standard is mentioned, to the authoritative standards appropriate to the Goods' country of origin. Such standards shall be the latest issued by the concerned institution.

15. Use of Contract Documents and Information;

The Supplier shall not, without the Purchaser's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in the performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.

16. Performance Security

- 16.1 Within ten (10) days of receipt of the notification of Contract award, the successful Bidder shall furnish to the Purchaser the performance security @ 10% of the total contract amount.
- 16.2 The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
- 16.3 The performance security shall be denominated in the currency of the Contract acceptable to the Purchaser and shall be in one of the following forms:
 - (a) a bank guarantee /DD/Bankers Cheque issued by a reputable bank located in Pakistan, in the form provided in the bidding documents or another form acceptable to the Purchaser.
- 16.4 The performance security will be discharged by the Purchaser and returned to the **Supplier after one year** the date of completion of the Supplier's performance obligations under the Contract, including any warranty obligations.

17. Packing

- 17.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit,

and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.

17.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified in SCC, and in any subsequent instructions ordered by the Purchaser.

18. Delivery and Documents

Delivery of the Goods shall be made by the Supplier in accordance with the terms specified in the Schedule of Requirements. 10.2 Documents to be submitted by the Supplier are specified in SCC.

19. Insurance

Insurance coverage is supplier responsibility for all the goods supplied on DDP basis up to SBS, Lahore under the Contract.

20. Warranty

20.1 The Supplier warrants that the Goods supplied under the Contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Supplier further warrants that all Goods supplied under this Contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the Purchaser's specifications) or from any act or omission of the Supplier, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination.

20.2 This warranty shall remain valid for twelve (12) months after the Goods, or any portion thereof as the case may be, have been installed and accepted at the final destination indicated in the Contract.

21. Prices

Prices charged by the Supplier for Goods delivered and Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid.

22. Termination for Default

The Purchaser, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate this Contract in whole or in part:

- (a) if the Supplier fails to deliver any or all of the Goods within the period(s) specified in the Contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause 22; or
- (b) if the Supplier fails to perform any other obligation(s) under the Contract.
- (c) if the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

For the purpose of this clause:

In the event the Purchaser terminates the Contract in whole or in part, pursuant to GCC Clause 24.1, the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to the Purchaser for any excess costs for such similar Goods or Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.

23. Termination for Insolvency

The Purchaser may at any time terminate the Contract by giving written notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Purchaser.

- 24. Resolution of Disputes** The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.
- 25. Applicable Law** The Contract shall be interpreted in accordance with the laws of Islamic Republic of Pakistan.
- 26. Notices**
- 26.1 Any notice given by one party to the other pursuant to this Contract shall be sent to the other party in writing or by fax and confirmed in writing to the other party's address specified in SCC.
- 26.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.
- 27. Taxes and Duties** Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Purchaser.

NOTE: (i) Above mentioned Technical Criteria documents must be attached, failing which will lead towards disqualification of the bid.

(ii) Bidders are requested to send soft copies of the tenders in Microsoft word format at below mentioned E-mail address after opening the tender on immediate basis.
gulnayabsbs@gmail.com

AFFIDAVIT

[To be printed on PKR 100 Stamp Paper, duly attested by oath commissioner. To be attached with Technical Bid]

Name: _____ *(Applicant)*

I, the undersigned, do hereby certify that all the statements made in the Bidding document and in the supporting documents are true, correct and valid to the best of my knowledge and belief and may be verified by employer if the Employer, at any time, deems it necessary.

The undersigned hereby authorize and request the bank, person, company or corporation to furnish any additional information requested by the *[name of Procuring Agency]* of the Punjab deemed necessary to verify this statement regarding my (our) competence and general reputation.

The undersigned understands and agrees that further qualifying information may be requested and agrees to furnish any such information at the request of the *[name of Procuring Agency]*. The undersigned further affirms on behalf of the firm that:

- (i) The firm is not currently blacklisted by the Procuring Agency.
- (ii) The documents/photocopies provided with Bid are authentic. In case, any fake/bogus document was found at any stage, the firm shall be blacklisted as per Law/ Rules.
- (iii) Affidavit for correctness of information.

[Name of the Contractor/ Bidder/ Supplier] undertakes to treat all information provided as confidential. *Signed by an authorized Officer of the company*

Title of Officer _____

Name of Company: _____

Date: _____

Performance Guarantee Form

[To be signed & stamped by the Bidder and reproduced on the letter head. To be attached with Technical Bid]

To,
[name and address of the Procuring Agency]

WHEREAS (Name _____ of _____ the _____ Contractor/Supplier) _____ hereinafter called "the Contractor" has undertaken, in pursuance of "INVITATION TO BID FOR THE "PROVISION OF _" procurement of the following:

1. *[Please insert details].*

(Here in after called "the Contract").

AND WHEREAS it has been stipulated by you in the Contract that the Contractor shall furnish you with a bank guarantee by a scheduled bank for the sum specified therein as security for compliance with the Contractor's performance obligations in accordance with the Contract; **AND WHEREAS** we have agreed to give the Contractor a Guarantee;

THEREFORE WE hereby affirm that we are Guarantor and responsible to you, on behalf of the Contractor, up to a total of _____ (Amount of the guarantee in words and figures), and we undertake to pay you, upon your first written demand declaring the Contractor to be in default under the Contract, and without cavil or argument, any sum or sums as specified by you, within the limits of _____ (Amount of Guarantee) as aforesaid without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until _____ day of _____, 20__, or _____ [insert number of days] after the rectification of the Defects, whichever is later.

[NAME OF GUARANTOR]

Signature _____ Name _____ Title _____

Address _____ Seal _____

Date _____

**Deputy Director (Procurement)
School of Biological Sciences,
University of the Punjab,
New Campus, Lahore.**

1.2 Date of Submission & Opening:

Opening Tender's 21 April 2026 at **02:30pm** in School of Biological Sciences,
University of the Punjab, Lahore.

1.3 Particulars of Firms:

Name & Postal Address of Firm:

Signature: _____

Name: _____

Desg: _____

Tele No _____

Cell No. _____

NTN: _____

Stamp: _____

GST: _____

E-mail: _____

