



## **SURVEY OF PAKISTAN INVITATION TO BID**

Survey of Pakistan a National Surveying & Mapping Agency invites sealed bids from the Original manufacturers/authorized distributors/suppliers/contractors etc., registered with Income Tax & Sales Tax Departments for supply of following Equipments/Furniture:

Sr. #	Description of Equipment	Qty	Closing Date
1	Plotter	04	<b><u>15-02-2024</u></b>
2	Scanner	01	
3	Server	01	
4	GNSS	01	
5	Auto Level Machine	03	
6	Total Station	02	
7	Leveling Stave Digital Level LS-15	01	
8	Multimedia	04	
9	PT with Stand & Sight Rules	30	
10	Biometric System	02	
11	Tent (F-Class)	10	
12	Tent (J-Class)	10	
13	Ink for Plotter Cartridges Set	01	

2). Bidding documents, containing detailed terms and conditions, method of procurement, procedure for submission of bids, bid security, bid validity, opening of bid, evaluation criteria, clarification/rejection of bids, performance guarantee etc., are available for the interested bidders at website of Public Procurement Regulatory Authority, ([www.ppra.org.pk](http://www.ppra.org.pk)), which can be downloaded.

3). The bids, prepared in accordance with the instructions in the bidding documents, must reach at Survey of Pakistan, Murree Road, Faizabad, Rawalpindi duly addressed to the Chairman Purchase Committee on or before **15-02-2024** at **10:30 hrs**. Bids will be opened the same day at **11:00 hrs**. This advertisement is also available on Department's website at [www.surveyofpakistan.gov.pk](http://www.surveyofpakistan.gov.pk).

**(NADEEM AHMAD CH.)**  
**Chairman Purchase Committee**  
Deputy Surveyor General  
Survey of Pakistan

## TERMS & CONDITIONS

1. Applications on prescribed form (attached) along with technical specifications (compliance sheet) and contract, which can be downloaded from the website of PPRA, should reach the Chairman Purchase Committee, Survey of Pakistan, Faizabad, Rawalpindi by registered post/courier latest by **10:30 hours** on **15-02-2024**. These will be opened at **11:00 hrs** on the same day in the presence of bidders their authorized representatives.
2. The envelope shall be marked as “FINANCIAL PROPOSAL” & “TECHNICAL PROPOSAL” in bold and legible letters to avoid confusion. Initially, only envelopes marked as Technical Proposal shall be opened and envelopes marked as Financial Proposal shall be retained in the custody of Chairman Purchase Committee. After the evaluation & recommendations by the Technical Evaluation Committee concerned, Financial Proposals of only technically accepted bids will be opened. The Financial Proposals of bids found technically non-responsive shall be returned un-opened to the respective bidders.
3. 3% earnest money in shape of pay order/bank draft in the name of Chairman Purchase Committee, Survey of Pakistan, Rawalpindi should be enclosed in the envelope containing Financial Bid. However, the certificate for attachment be indicated in technical bid, otherwise, the same will be rejected at the opening stage.
4. Successful bidder(s) will be required to execute agreement governing the terms & conditions of the contract.
5. All the bidders are requested to offer the latest model. Accepted/approved model shall not be replaced at any stage even with superior model. Supplier’s earnest money will be forfeited and supply order will be cancelled.
6. Procuring agency may reject any or all bids subject to the relevant provisions of PPRA Rules.
7. Only registers suppliers who are on Active Tax Payers List (ATL) of FBR are eligible to supply goods to the Government departments.
8. The supplier should attach a proof that he is on ATL of FBR Data Base. In other case his payment would be stopped till he files his mandatory return and appears on ATL of FBR.
9. The prices should be inclusive of all leviable taxes.
10. Bids will be valid for 120 days from the date of opening of bid.
11. The bidders shall have to give demo of their offered model during Technical Evaluation for analysis.
12. The bidders should also provide the detail price analysis of the items/accessories in their Financial Proposal alongwith unit rate with GST.
13. The method of procurement is single stage – two envelopes as per PPRA’s Rule-36(b).
14. The successful bidder shall be liable to give full/justifiable training of their approved model.
15. **Quantity of items can be increased or decreased subject to availability of funds.**
16. Compliance sheet (attached) must be furnished duly filled in, otherwise tender will not be entertained.
17. Copy of CNIC must be attached with the bid.
18. For more information, please contact with Mr. Muhammad Asghar, Senior Stores Officer at telephone No. 051-9290227.

## **EVALUATION CRITERIA**

Technical Evaluation Reports of the Technical Proposals will be made as per tender specifications without the reference to the price as per PPRA Rule 36 (b)(v).

Only the Financial Proposals of those bidders whose Technical Proposals have technically been recommended by Technical Evaluation Committee of the department will be opened publically as per PPRA Rule 36 (b)(viii). Out of which, the bid having the lowest price will be the lowest evaluated as per PPRA Rule 36(b)(ix).

**PRESCRIBED APPLICATION FORM FOR TENDERING OF PROCUREMENT OF EQUIPMENT**

(To be printed on firm/supplier's letter head duly signed by the authorized representative)

The Chairman Purchase Committee,  
Survey of Pakistan,  
Faizabad, Rawalpindi.

In response to press advertisement dated: -01-2024 appeared in the daily .....  
we M/s. .... have downloaded Tender Documents consisting of Contract  
Proforma for Tendering under Purchase of stores including the detail and specifications from PPRA's website.

We have gone through all the terms and conditions contained in above mentioned documents and those, which are the part of tender.

We fully agree to abide by the terms and conditions contained in the said documents and therefore hereby submit Technical as well as Financial Proposals for the following:


**AUTHORISED SIGNATURE  
NAME & SEAL OF FIRM/SUPPLIER**

## SPECIFICATION OF “PLOTTER (Size 42” -44”)”

<b>Sr. #</b>	<b>Peripherals/Functions</b>	<b>Specifications</b>	<b>Compliance/ Bidder Response</b>
1.	Brand	Renowned Brand commonly used in Pakistan	
2.	Model size	1118mm	
3.	Print speed	180 A1/hr, 19.3 sec/A11	
4.	Print resolution	Up to 2400 x 1200 optimized dpi	
5.	Printhead Nozzles	2112 each color	
6.	Technology	Thermal or Inkjet	
7.	Ink types	Dye-based (C, M, Y, pK, G); Pigment-based (mK)	
8.	Ink Droplet Size	6 pl	
9.	Print heads	3 universal printheads, 2 colors each	
10.	Line accuracy	±0.1% or less	
11.	Minimum line width	0.02 mm (PDF addressable at 1200 dpi);	
12.	Handling	Single-roll: Sheet feed, roll feed, automatic horizontal cutter Dual-roll: Sheet feed, two automatic roll feeds, automatic roll-switching, media bin, automatic horizontal cutter	
13.	Standard sheets	A4, A3, A2, A1, A0	
14.	E-print Capability	Yes	
15.	Media Roll Outer	170 mm	
16.	Grammage	60 to 328 g/m <sup>2</sup>	
17.	Thickness	Up to 0.8 mm	
18.	memory	128GB	
19.	Hard disk	500 GB self-encrypting	
20.	Media Type	Bond And coated paper (bond, coated, heavy weight coated, super heavy weight plus matte) Technical Paper(natural tracing, translucent bond) film(clear comma matte), photographic paper(satin, gloss, semi-gloss, matte, high gloss), backlit, self-adhesive(polypropylene, vinyl), blueprint	
21.	Interfaces	Gigabit Ethernet (10/100/1000Base-T), supporting the following standards: TCP/IP, Boot IP/DHCP (IPv4 only), DHCPv6, TFTP (IPv4 only), SNMP (v1, v2c, v3), Apple Bonjour Compatible, WS Discovery, line printing daemon, Inter printing protocol, NTLM v2, SMBv3, authentication (LEAP, PEAP, EAP-TLS), and wifi.	
22.	Print languages (standard)	PostScript Printer: Adobe PostScript 3, Adobe PDF 1.7, HP-GL/2, HP-RTL, TIFF, JPEG, DWG, CALS G4; Non-PostScript Printer: HP-GL/2, HP-RTL, TIFF, JPEG, CALS G4	
23.	Print languages (optional)	Non-PostScript Printer: Adobe PostScript 3, Adobe PDF 1.7	

24.	Printing paths	Direct printing from USB flash drive, print from network shared folder, email printing, driver for latest Windows,	
25.	A0 size drawing print	37 sec	
26.	Non-Printable Area(cut-Sheet)	3x17x3x3mm	
27.	Drivers	PostScript Printer: Raster, PostScript and PDF drivers for Windows 10 or later, Non-PostScript Printer: Raster drivers for Windows 10 or later,	
28.	Environmental	ENERGY STAR, ErP, WEEE, RoHS (EU), REACH, EPEAT	
29.	Power Consumption	<100W(printing), <24W(Ready), <0.3W(Sleep) Power cable Round Pin Pakistan compatible	
30.	Warranty	One-year hardware warranty.	
31.	Dealership	Authorized Dealership Gold / Higher with manufactural authorization letter	
32.	Cartridges	One set of extra cartridge	

Note:

The document enlists all requirements in left columns. The bidder shall provide his consent in the rightmost column. The response should be explicit in well-defined specification offered for the components against each row. Any ambiguous and implicit words or quotations (such as **yes, ok, offered, available and provided etc.**) shall be treated as “non-responsive”.

## SPECIFICATION OF “SCANNER”

Sr. #	Peripherals/Functions	Specifications	Compliance/ Bidder Response
1.	Brand	Renowned Brand commonly used in Pakistan	
2.	Enhanced resolution	9600 dpi	
3.	Optical resolution	1200 x 1200 dpi	
4.	Document Thickness	max. 2.5 mm (0.1 inch)	
5.	Imaging technology	CIS scanning technology	
6.	Accuracy	± 0.1% ± 1 pixel	
7.	Scan Speed Color	200 dpi - 7.5 inch/s or better	
8.	Scan Speed BW	200 dpi - 15 inch/s or better	
9.	Data capture(color/mono)	48-bit/16-bit gray scale	
10.	Maximum scan width	1220 mm (48 in)	
11.	Paper Path	Face up, Front entry, Front or rear exit	
12.	Scan direction	± 0.08% across 48 inch scanning width	
13.	Supported file formats	PDF, TIFF, JPEG, JPEG2000, DWF, multi-page PDF generation	
14.	Scan to	File, email, USB, HDD, network folder, FTP, print	
15.	Settings	Type of original-preset, color mode, resolution (dpi), batch, single/multi-page, file format, customizable file naming, customizable default settings, image crop and align preview, enlarge/reduce, blueprint, lightness, saturation and RGB controls, white point and black point adjust, sharpen/blur, background removal, invert, mirror, accounting	
16.	Copier specific settings	Print mode, for printer output destination	
17.	Maximum scan size <sup>7</sup>	0.91 x 26 m (36 x 1204 in); 0.6 x 37.9 m (24 x 1491 in); 0.3 x 75.8 m (12 x 2991 in)	
18.	Batch	Available with scan and copy	
19.	Preview	Scan, copy and print after previewing the original in the advanced <b>touchscreen controller</b>	
20.	Size detection	Automatic width detection. Manual size selection also possible	
21.	Applications Media	Line drawings, Maps, Office Graphics, Posters, Presentations	
22.	Handling	Straight-through scan paper path for sheet and cardboard originals. Face-up, front entry, rear exit, rewind to front, use document return guide for front-return	
23.	Types	Non-abrasive paper, sepia, blueprints, plastic, plastic laminate, foam board, cardboard,	

		newspaper	
24.	Processor	Intel Core i7 or latest	
25.	Memory	4 GB memory, 500 GB hard disk or more	
26.	Connectivity	Dual Gigabit Ethernet (1000 Base-T), Hi-Speed USB 3.0 certified	
27.	Drivers (included)	Windows 10 version drivers for compatible HP Page Wide XL and HP Design Jet Printers	
28.	User Interface	15.6-inch (396-mm) large touchscreen to preview and enhance images	
29.	Software	Scanning software compatible with windows 10	
30.	Calibration Sheet & Software	Calibration Sheet along with calibration software	
31.	Stand	Standard brand specific Stand	
32.	Power Requirements	Input voltage (auto rang Ving): 240 VAC ( $\pm$ 10%), 50/60 Hz, 5 A max, or Pakistan Compatible	
33.	Warranty	01 Year on site comprehensive	
34.	Dealership	Authorized Dealership Gold / Higher with manufactural authorization letter	

Note:

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## SPECIFICATION OF “SERVER”

Sr. #	Peripherals/ Functions	Specifications	Compliance/ Bidder Response
1	Device	2 Socket Rack Mounted Server	
2	Processor	2x Intel Xeon Processors with minimum 18Core and 2.2Ghz	
3	Memory	Should support 16,32,64,128GB DDR4 DIMMs, ECC, 2666MHz and 2999MHz Configured memory should be 256GB with 32GB modules	
4	Disk	MAX support 25/16 Disk Bays, Minimum 8, SAS 10K,15K RPM, 12Gbps, equivalent or higher, also should support M.2 with separate RAID card for OS Boot and Various Other Disk Such as, NL-SAS, SSD SAS/SATA, PCI NVME. Should be configured with 2 x 800GB SSD 12Gbps(Mixed use)	
5	RAID Controller	Support RAID 0, 1,10 or more, 12Gbps	
6	Network Adapter	4 x GE port and 4 x 10GE port with optical and Base-T transceivers Redundancy should be taken care	
7	HBA Card	2 x Dual-port 16Gbps FC HBA card with optical transceivers prefer if it has the same manufacturer as Server	
8	Optical Drive	Virtual Physical Drive should be supported	
9	Power Supply	Redundant hot-swappable high-efficiency AC power supply or higher in full configuration	
10	Stability	Support long-term operating temperature under specific conditions	
11	System Management	<b>Manageability and maintainability:</b> 1 Supports integrated system management: Automatically restarts servers Monitors and controls fan modules, power supplies, and temperature, Starts and shuts down servers, Restarts servers in sequence, Updates local firmware Records error logs, provides a visualization tool, 2 Provides GUIs for management and other advanced management functions. 3 Provides independent remote management and control ports and GUIs for remote monitoring to implement remote full control over servers, independently of OSs. Remote full control includes remote start-up, shutdown, and reset, and virtual floppy and DVD-ROM drives.	
12	OS	Windows server latest	
13	Antivirus	Server-based Antivirus	
14	Compatibility	Supports mainstream operating systems, such as Windows, Redhat Linux, SuSE Linux, VMware, Fusion sphere and Citrix XenServer	

**Note:** Faulty Hard Drives will not be returned during the warranty period.

# SPECIFICATION OF “GNSS”

## GNSS Set (01 BASE & 03 ROVERS COMBINATION)

### LIST OF ITEMS

1. Base receiver	01
2. Rovers’ receiver	03
3. Hard Container for GNSS receiver and accessories	04
4. Rugged Controllers	04
5. Post Processing Software (Full package)	01
6. 35W external Radio + High Gain 5 DB Antenna	01
7. Tribrach with removable optical plummet	04
8. Imported heavy duty branded wooden/Fibre glass Tripods	04
9. Heavy duty branded receiver poles (2.0 m) with canvas cover / bags	04
10. Extension rods	04
11. Bipod / pole catcher	04
12. External Dry Battery	01
13. Spare Batteries for controller	04
14. All other standard accessories with article number of same brand (i.e batteries, chargers, set of cables , measuring taps and carrying cases etc)	

**Note: Each Base and Rover Receiver must be compatible to be used both as base and rover**

## SPECIFICATIONS OF BASE & ROVER RECEIVER

### Positioning Accuracies

▪ Static and Fast Static	2.5mm + 0.5 ppm Horizontal 5 mm + 0.5 ppm Vertical
▪ Long Observation Static	3 mm + 0.1 ppm Horizontal 3.5 mm + 0.4 ppm Vertical
▪ Real Time Kinematic	8 mm + 1 ppm Horizontal 15mm + 1 ppm Vertical
▪ DGPS	<0.4 m RMS
▪ SBAS	1 m 3D RMS
▪ Standalone	1.5m 3D RMS
▪ PPP	10cm Horizontal and 20cm Vertical

## Signal Tracking

- Channels: > 500
- L-Band
- GPS L1 C/A, L2C, L2P L5
- BeiDou: B1, B2, B3
- BeiDou Global Signal: B1C, B2a, B2b
- GLONASS: L1 C/A, L1P, L2 C/A, L2P
- Galileo: E1, E5a, E5b, E6, E5 AltBOC,

## Communications

- 1 serial Port
- USB Type C
- UHF modem: Tx/Rx with full frequency range from 410-470 MHz
- Transmit Power: selectable 1 & 2 W Internal / 35 Watt external
- RTK Range: > 08 Km with Internal Radio in Optimal Conditions
- External Radio for Extended range > 20 Km
- Position data output rates: > 10 Hz
- Bluetooth®: V5.0 protocol, compatible with Windows OS and Android OS
- Calibration-free IMU integrated for Tilt Survey up to 30° tilt with 2.5 cm accuracy
- LED for Indication of Satellite Tracking & RTK data Corrections
- OLED Display

## Data Format

- Correction data I/O RTCM 2.x, 3.x formats  
CMR, CMR + (GPS Only)  
Trim Talk, Satel

## Environmental

- Operating temperature -40 °C to + 65 °C (-40 °F to 149 °F)
- Storage temperature -40 °C to + 85 °C (-40 °F to 185 °F)
- Humidity: 100 % non-condensing
- Water and dust IP67 protected from temporary immersion to depth of 1m
- Shock: Designed to Survive a 2 m drop onto concrete

## Electric & Memory

- Li-ion battery capacity: > 8 Hrs working & > 3000 mAh
- Memory > 6 GB

## Rugged Field Data Controller

- Android 12.0 Operating System (Sunlight readable)
- Google GMS Certification
- Full QWERTY with 10 key number pads, directional buttons and 4 programmable buttons
- 5" captive Touch panel Capacitive screen, support glove/wet hand
- Qualcomm 8 core processor or better

- Survive from a 1.6m drop
- Water and Dust resistant IP 67 or better
- -20 C to + 60 C working temperature
- Qualcomm 8953 2.2GHz Android CPU or Better
- 8000 mAh, working time > 24 hours with Wifi and BT On.
- ROM 64 GB, RAM 4 GB
- Camera Rear > 12 Mega pixel with auto focus
- Blue Tooth Dual Mode 5.0
- Holder for pole

### **Field Software**

- Compatible with most of Android devices
- Easier survey workflow via Wizard function
- Support > 30° tilt compensation
- Support all survey modes, including Static, PPK and RTK
- Able to Import & Export
- Shape Files
- CAD Files
- CSV Data

### **Post Processing Software**

- Provides the complete GPS/GLONASS/ BeiDou / GALILEO Processing Solution
- Support GNSS observation data in RINEX and Raw Binary Data formats
- Support different post-processing in static and kinematic modes
- Outputs analysis reports in various formats (web format, DXF, TXT, KML)

### **Additional Accessories for Base**

- a. One Battery set of Base Receiver.
- b. One set of Base UHF Antenna.

### **Additional Accessories for Rover**

- a. One battery set of rover receiver.
- b. One set of rover UHF antenna.

### **Field Training 1 week**

- Training for operation and preventive maintenance of equipment (Hardware and software) for 02 weeks free of charge.
- Complete Field Training on use of GNSS equipment for use in GIS and Construction Surveying
- Static Data Processing, Network Adjustment
- Field Transformation
- Construction Layout, Volume Calculation
- GIS Data upload & Download

### **Warranty**

- Two year after commission on site, defective parts/assemblies will be replaced by the bidder free of charge within warranty period

## **Terms & Conditions**

1. Authorization letter from the original manufacturer (OEM) of the GNSS RTK sets for this tender will be considered for technical evaluation.
2. Bidder must confirm for delivery of equipment in case of export approvals required, this will be responsibility of vendor to manage delivery within delivery period as per contract.
3. OEM (Original Equipment Manufacturer) and its representative must have reasonable experience of manufacturing GNSS instrument. Any sale contract / document to be provided as proof. Preference will be given on basis of more experience.
4. Workshop and after sale service in Pakistan must be present to ensure in time availability of spares and after sale technical support to Survey of Pakistan. E-mail, telephone, fax No. and address of workshop to be provided with technical bid for confirmation during technical evaluation. Evaluation team may inspect workshop.
5. The bidder must provide OEM certificate of main equipment, technical specifications, brochures and drawings of each item in schedule of requirement of quoted model in English.
6. All bidders are advised to comply strictly with the tender specifications and no deviation shall be allowed.
7. The system must be based on latest design (Hardware & Software), model and technology.
8. Before opening of financial tender, responsive bidder will be responsible for on ground practical demonstration of the quoted instruments along with all accessories in Survey of Pakistan headquarters Rawalpindi, Pakistan. The performance and quality will be technically evaluated by technical committee of Survey of Pakistan as per tender specifications.

### **Note:**

- i. 100% compliance of each sub item of Tender Specifications as mentioned in Proforma - GNSS A-1 will be required.
- ii. If the firm qualifies 100% compliance on the basis of Proforma-GNSS A-1, the firm has to demonstrate the performance to evaluate the user interface, quality, OEM/ Authorize Agent Experience of the firm, Availability of after sale services/workshop and performance of the equipment.

- iii. On the basis of Evaluation Criteria Proforma B-1, the bidder obtaining 70 or more marks will be technically qualified.

**Evaluation criteria is given in attached**

- iv. Proforma GNSS A-1.
- v. Proforma B-1.

Note:

The document enlists all requirements in left columns. The bidder shall provide his consent in the rightmost column. The response should be explicit in well-defined specification offered for the components against each row. Any ambiguous and implicit words or quotations (such as **yes, ok, offered, available and provided etc.**) shall be treated as “non-responsive”.

## **SPECIFICATION OF “AUTO LEVEL MACHINE”**

### **Telescope**

Magnification	32 x
Resolving power	3"
	Image - Erect, Field of view: 1° 20' (2.3m/7.5ft), Minimum focus: 0.2m(7.9in) for end of telescope 0.3m (1ft) from instrument centre
Objective Aperture	42mm (1.65 in)
Stadia Ratio	100
Focusig Knob	2-speed
Sighting Aid	Peep Sight

### **Accuracy (1km double run leveling)**

Better than 1mm

### **Compensator**

Type	Pendulum compensator with magnetic damping system
Setting Accuracy	0.3"

### **Circular Level**

Sensitivity	10'/2mm
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### **Horizontal Circle**

Diameter	103mm (4.1in)
Minimum Division	1°/1gon

### **General**

Water Resistance	IPX6 (IEC 60529:2001)
Operating Range	20 to +50°C

### **Accessories**

Aluminium Heavy Duty Tripod  
Aluminium Staff Rod with double side numbers 5 Fold  
5meter / 16 feet long with covering bag & bubble  
Staff Holder, Staff transport case, 2x ground plates, 2x  
batteries and Charger

Note: All other standard accessories with article number of same brand (i.e batteries, chargers, set of cables , measuring taps and carrying cases etc)

### **Field Training 1 week**

- Training for operation and preventive maintenance of equipment (Hardware and software) for 02 weeks free of charge.

### **Warranty**

- One year after commission on site, defective parts/assemblies will be replaced by the bidder free of charge within warranty period

### **Terms & Conditions**

1. Authorization letter from the original manufacturer (OEM) of the Auto level for this tender will be considered for technical evaluation.
2. Bidder must confirm for delivery of equipment in case of export approvals required, this will be responsibility of vendor to manage delivery within delivery period as per contract.

3. OEM (Original Equipment Manufacturer) and its representative must have reasonable experience of manufacturing Auto level. Any sale contract / document to be provided as proof. Preference will be given on basis of more experience.
4. Workshop and after sale service in Pakistan must be present to ensure in time availability of spares and after sale technical support to Survey of Pakistan. E-mail, telephone, fax No. and address of workshop to be provided with technical bid for confirmation during technical evaluation. Evaluation team may inspect workshop.
5. The bidder must provide OEM certificate of main equipment, technical specifications, brochures and drawings of each item in schedule of requirement of quoted model in English.
6. All bidders are advised to comply strictly with the tender specifications and no deviation shall be allowed.
7. The system must be based on latest design (Hardware & Software), model and technology.
8. Before opening of financial tender, responsive bidder will be responsible for on ground practical demonstration of the quoted instruments along with all accessories in Survey of Pakistan headquarters Rawalpindi, Pakistan. The performance and quality will be technically evaluated by technical committee of Survey of Pakistan as per tender specifications.

**Note:**

- i. 100% compliance of each sub item of Tender Specifications as mentioned in Proforma – Auto Level A-3 will be required.
- ii. If the firm qualifies 100% compliance on the basis of Proforma-Auto Level A-3, the firm has to demonstrate the performance to evaluate the user interface, quality, OEM/ Authorize Agent Experience of the firm, Availability of after sale services/workshop and performance of the equipment.
- iii. On the basis of Evaluation Criteria Proforma B-3, the bidder obtaining 70 or more marks will be technically qualified.

**Evaluation criteria is given in attached**

- iv. Proforma Auto Level A-3.
- v. Proforma B-3.

**Note:**

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# **SPECIFICATION OF “TOTAL STATION”**

## **TENDER SPECIFICATIONS**

### **On Board Operating System**

Operating system	Linux/ Windows/ Android
Display	Graphic LCD,
Keyboard	Alphanumeric keyboard / 28 keys with backlight
Memory	> 40,000 points USB flash memory (max. 32GB)
Interfaces'	Serial RS-232C, USB2.0 (Type A for USB flash memory)

### **Telescope**

Magnification	30x
Resolving power	2.5" Erect Image, Field of view: 1°30' (26m/1,000m), Minimum focus: 1.3m (4.3ft.) Reticle illumination

### **Angle Measurement**

Minimum Display (selectable)	1"/5"
Accuracy	5 second
Dual-axis compensator	Dual-axis liquid tilt sensor, working range: ±6'

### **Distance Measurement**

Laser Type	Reflector less Class 3R. Prism/sheet Class 1
Measuring Standard	D=measuring distance in mm
RL Range	0.3 to 500m (1,640ft.)
RL Accuracy	(2 + 2ppm x D) mm
Sheet Accuracy	(2 + 2ppm x D) mm
Prism Accuracy	(1.5 + 2ppm x D) mm

### **Standard**

Laser-pointer	Coaxial red laser using EDM beam
Levels Graphical	6' (Inner Circle)

Circular level (on tribrach)	10' / 2mm
Plummet	Optical

### **Environmental & Power**

Dust and water protection	IP66 (IEC 60529:2001)
Operating Temperature	-20 to +60°C (-4 to +140°F)
Battery Li-ion rechargeable battery	> 7 V, 5000 mAH or better
Operation Time	Approx. 14hours

### **Application for Survey**

Standard	<ul style="list-style-type: none"> <li>• REM Measurement • 3D Coordinate Measurement</li> <li>• Resection • Stake Out • Topography Observation</li> <li>• Offset Measurement • Missing Line Measurement</li> <li>• Intersection</li> <li>• Surface Area Calculation • Route Surveying • Point to Line</li> </ul>
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### **Accessories**

a. Original/ Branded Accessories with strong carrying case	
b. Rechargeable Batteries	02
c. Dual Battery charger	01
d. CD containing instruction manual	01
e. Prism with target plate	02
f. Prism Pole	2.6 meter with covering bag
g. Display	02
h. Detachable tribrach	01
i. lens cover set	01
j. cleaning brush	01
k. cover of durable plastic	
l. Shock absorbing carrying case with shoulder strap etc in complete	
m. Heavy duty wooden tripod/Fibre glass	01

n. Bipod/Catcher for prism pole Aluminium	02
o. Compass detachable tool	01
p. Canvas Covers / <b>Bags</b> Bipod	For Total Station Box, Tripod, Prism, Prism pole,

## **TRAINING**

Training for operation and preventive maintenance of equipment (Hardware and software) for 02 weeks free of charge.

## **WARRANTY**

One year after commission on site, defective parts/assemblies will be replaced by the bidder free of charge within warranty period. After sales & services guaranty of 02 years.

## **Terms & Conditions**

1. Bid from the original manufacturer (OEM) or his Authorize Agent of the Total Station will be considered for technical evaluation.
2. OEM (Original Equipment Manufacturer) must have reasonable experience of manufacturing Total Station instrument. Any sale contract / document to be provided as proof. Preference will be given on basis of more experience.
3. Workshop and after sale service in Pakistan must be present to ensure in time availability of spares and after sale technical support to Survey of Pakistan. E-mail, telephone, fax No. and address of workshop to be provided with technical bid for confirmation during technical evaluation. Evaluation team may inspect workshop.
4. The bidder must provide OEM certificate of main equipment, technical specifications, brochures and drawings of each item in schedule of requirement of quoted model in English.
5. All bidders are advised to comply strictly with the tender specifications and no deviation shall be allowed.
6. The system must be based on latest design (Hardware & Software), model and technology.
7. Before opening of financial tender, responsive bidder will be responsible for on ground practical demonstration of the quoted instruments along with all accessories in Survey of Pakistan headquarters Rawalpindi, Pakistan. The performance and quality will be technically evaluated by technical committee of SOP as per tender specifications.

8. Evaluation criteria for Technical Evaluation of Total Station Level is based on

- 100% compliance of each sub-item of Tender Specifications as mentioned in Proforma-A-2 will be required.
- If the firm qualifies 100% compliance on the basis of Proforma A-2, the firm has to demonstrate the performance to evaluate the user interface, quality, OEM/ authorized Agent Experience of the firm. Availability of after sale services /workshop and performance of the equipment.
- On the basis of Proforma B-2 the bidder obtaining 70 or more marks will be technically qualified.

**Note:**

**Evaluation criteria is given in attached**

- I. **Proforma A-2.**
- II. **Proforma B-2.**

Note:

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## SPECIFICATION OF “LEVELING STAVE DIGITAL LEVEL LS-15”

- Leica type GPCL 3/Bar coded (for LS-15) Invar Staff with two handles for steady positioning length 3m with cover.

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## SPECIFICATION OF “MULTIMEDIA”

Sr. #	Functions / Peripherals	Specifications	Compliance/
1.	Brand	Sony/BenQ/Epson/LG/Acer	
2.	Display System	4K SXRD panel, projection system	
3.	Brightness	6 500 Lumens	
4.	Technology	Laser LCD	
5.	Projection lens	Focus	Powered
		Zoom	Powered (Approx. x 2.1)
		Lens shift	Powered Vertical: +85% -80%
6.	LCD panel	Panel size	19.3mm(0.76inches) diagonal
		Display method	Transparent LCD panel( x 3, R/G/B)
		Drive method	Active matrix method
		pixels	26,542,080 (4096 x 2160 x 3) pixels
7.	Lens	PT-MZ670	Powered zoomed(1.6x) focus lenses, F 1.7-2.3,f 26.8-45.5mm throw ratio 1.6-
		PT-MZ670L	Optical power zoom/focus lenses and fixed focus lenses
8.	Light source	Laser diode laser class1(class 3R for US	
9.	Projection size	1.02-10.16m(40-400inches)diagonally, 16:10 aspect ratio	
10.	Recommended lamp replacement	6000 H (Lamp mode: Low)	
11.	Screen size	60” to 300” (1,524 mm to 7,620 mm)	
12.	Colour	Full colour(16,777,216 colours)	
13.	Light output	6500 lm (input signal:PC operating mode: normal, Dynamic mode)	
14.	Center to center uniformity	90%	
15.	Colour light output	1800 lm (Lamp mode: High)*2	
16.	Dynamic contrast	3,000,000:1	
17.	Displayable scanning	Horizontal	19 kHz to 72 kHz
		Vertical	48 Hz to 92 Hz
18.	Display resolution*3	Computer signal input	Maximum display resolution: 1920 x 1080 dots (HDMI Input only)
		Video signal input	480/60p, 576/50p, 720/60p, 720/50p, 1080/60i, 1080/50i, 1080/60p, 1080/50p, 1080/24p, 3840 x 2160/24p, 3840 x 2160/25p, 3840 x 2160/30p, 3840 x 2160/50p*4, 3840 x2160/60p*4, 4096 x 2160/24p, 4096
19.	INPUT OUTPUT (Computer / Video / Control)	HDMI1 / HDMI2	Digital (RGB/Y Pb/Cb Pr/Cr) Bandwidth 18Gbps and HDCP 2.2.
		Trigger1 /	2x Minijack, DC 12 V Max. 100 mA
		Remote	RS-232C, D-sub 9-pin (female)
		LAN	RJ45, 10Base-T/100BASE-TX
		Digital LAN/Link	RJ45x1 for network and digital link(video/network/ serial control) connection,100base-tx, compliant
	IR IN	Mini Jack	

		USB	DC 5V, Max. 500 mA	
20.	Acoustic noise		26 dB	
21.	Operating temperature / Operating humidity		5°C to 35°C (41°F to 95°F) / 35% to 85% (no condensation)	
22.	Storage temperature / Storage humidity		-20°C to +60°C (-4°F to +140°F) / 10% to 90% (no condensation)	
23.	Illumination life of set		Varies depending on operation mode setting. 20000 hour at half luminance IEC26087:2008 broadcast contents, dynamic contrast temp: 30°C under	
24.	Power requirements		AC 100V-240V, 4.6 A to 2.0 A, 50/60Hz	
25.	BTU value		Max 1792BTU	
26.	Power consumption	operating	460 W	
		Standby	0.4 W (when "Remote Start" is set to	
		Networked Standby	1.0 W (LAN) (when "Remote Start" is set to "On") When a LAN terminal is not connected, it becomes a low	
27.	Dimensions (W x H x D) (without protrusions)		PT-MZ670 560x205*4x 443mm(22-1/16 x 8-1/16*4x 17-7/16inches) (with supplied lens) PT-MZ670L 560 x 205*4x 428mm(22-1/16 x 8-1/16*4x	
28.	installation		Ceiling/desk/AUTO, front/rear, 360° free installation	
29.	Speaker		4.0 cm round type x1	
30.	Power Cord length		3.0m (9ft 10in)	
31.	Cabinet material		Molded plastic	
32.	Mass		Approx. 14 kg / 31 lb	
33.	Replacement lamp		LMP-H280	
34.	Warranty		One-year hardware warranty.	
35.	Dealership		Authorized Dealership Gold / Higher with manufactural authorization letter	

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## SPECIFICATION OF “PT WITH STAND & SIGHT RULES”

Sr. #	Peripherals/ Functions	Specifications	Compliance/ Bidder Response
1	<u>Plane Table</u>	Wooden board made up of seasoned Diyar wood measuring 750 mm x 600 mm with 20 mm thickness with 2 x braces measuring 300 mm x 580 mm with 25 mm thickness made from seasoned Diyar wood. Having 190 mm diameter round base plate having 7 mm thickness made of steel/sliver securely screwed up with 2 mm thick and 60 mm outer dia flange and 25 mm outer dia (& 15 mm inner dia) and 15 mm projecting threaded brass socket for bolting stand. All complete as per sample.	
	<u>PT Stand</u>	<p>Wooden PT Stand / tripod made up of seasoned Diyar wood and having 3 equal-sized and length legs and each following sepcs:</p> <ul style="list-style-type: none"> <li>• Length/height – 1200 mm</li> <li>• 2 x 30 mm x 15 mm wooden pieces</li> <li>• 1 x 120 mm long &amp; 18 mm thick trapezoidal wooden brace at the center having 45 mm upper width at one end and 35 mm lower width at the other end.</li> <li>• 65 mm long 25 mm wide &amp; 1.5 mm thick pointed steel shoe at bottom projecting out by 25 mm.</li> <li>• 1 x 160 mm long bolt made up of brass having 5 mm thickness and 40 cm long threads on both ends and with 2 x 35 mm wide &amp; 2 mm thick butterfly nets for both ends.</li> <li>• Edges must be beveled.</li> <li>• All complete as per sampl;e.</li> </ul> <p><u>PT Stand Top Support:</u> PT Stand top triangular support made of seasoned Diyar wood with following dimensions:</p> <ul style="list-style-type: none"> <li>• Each projecting piece measuring 70 mm x 50 mm (thick).</li> <li>• 2 x co-centric holes at center. Outer hole having 52 mm dia with 4 mm depth, whereas, inner having 27 mm dia with 46 mm depth (going through &amp; through) for securing stand bold into PT Base Plate.</li> <li>• Stand bolt made up of brass having 60 mm length and 15 mm thickness with 20 mm long threads and having 65 mm wide &amp; 6 mm thick butterfly bolt head far easy operation.</li> </ul> <p>All complete as sample.</p>	



	<u>Sight Rule</u>	<p>Wooden sight Rule made up from seasoned Diyar wood with 76 mm length, 18 mm thickness and having 45 mm width at bottom and 30 mm width at the top.</p> <p>1 x sight at one end made up of brass and measuring 19 mm wide, 100 mm high with 70 mm long beveled 0.5 mm wide slit along the center and 1 x 1 mm size hole at the top to tie string.</p> <p>1 x sight at other end made up of brass and measuring 19 mm wide, 100 mm high with 70 mm long 10 mm wide opening and 2 x 1 mm size holes at the top &amp; bottom to tie string</p> <p>The sight should have 45 mm long and 18 mm wide 5 mm thick with 2 mm deep cut at center base for securely fixing the sight onto the sight rule with help of screws. A 35 mm long diagonal U-shaped support tightened with sight rule with help of screws/nuts.</p>	
	<u>Warrantee</u>	2 years	

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## SPECIFICATION OF “BIOMETRIC SYSTEM”

Sr. #	Peripherals/ Functions	Specifications	Compliance/ Bidder Response
1	Brand	Any	
	Model	Latest	
	Access Control Interface	Electric Lock, Door Sensor, Exit, Button Alarm, Door Bell	
	Standard Functions	Work code, SMS, DLST, Self Service Query, Automatic status, switch anti-pass back, Back up Battery	
	Thumb Impression	Fast and Latest Version	
	RFID	Yes	
	Password	Yes	
	Fingerprint Capacity (Templates)	3000	
	Transaction Capacity (Logs)	10,00-15,000	
	Complete HR Management Software	Yes	
	SDK for Software Development	Yes	
	TCP/IP, USB Host RS232/485	Yes	
	Built-in Lithium Battery Backup	04-06 Hours	
	Algorithm Software Version	Fast and Latest Version	
	Speaker Voice Prompt	Yes	
	Identification Speed	01 Sec	
	Detection Speed	01 Sec	
	Door Access Control system	Yes	
	TFT Color Screen	03 Inch	
	Built-in WIFI	Yes	
GPRS	Yes		
Installation	Complete Installation with software and hardware		
Warranty	3 Years		

Note:

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## SPECIFICATION OF “TENT (F-CLASS)”

Sr. #	Peripherals/ Functions	Specifications	Compliance/ Bidder Response
1	Tent J Class	<p>Double ply &amp; double fly Tent inside measuring 8 ft wide and 11 ft long made out of 400 to 600 g/m<sup>2</sup> 100% Cotton Canvas rot &amp; water proof &amp; fireproof (Optional). The tent has 3 ft high side walls. Tent has a height of 8 ft at the center with 2 x 3 in dia &amp; 10 ft long bamboo vertical supports at edges and 1 x 3 in dia &amp; 11 ft long horizontal support on top of two long vertical supports. Vertical supports must have 3/8 to 1/2 in dia steel pins projecting out by 5 inches for tightening ropes. The horizontal support must have round shaped steel connectors at both ends and having 2-inch dia, 2 mm thickness with 1/2 inch dia hole at the center to receive vertical post pin. On two shorter sides, the tent should have openable qannat panels, conforming to the shape of opening. A blue or brown inner layer made up of cotton cloth should be fixed to enhance interior of the tent. At rear end of tent there should be double ply but single fly semicircular attached partition (for bath or cooking) some 3.5 ft wide at center. Inside tent should have Cotton Canvas rot &amp; water proof &amp; fireproof (Optional) daree</p> <p>Tent package must include 22 steel pegs each measuring 15 inches long and 1/2 dia with hooks at one end and point edge at the other end. There should be 15 small pegs measuring 6-inch length with 3/8-inch dia with hook at one end and pointed end at other side.</p> <p>The tent should durable and good in wind and outdoor camping conditions. It should be easy setup in all weather, easy to take down, easy to roll up.</p> <p>Tent should be with all parts mentioned above along 1 x 1/2 kg hammer and complete in all respects.</p> <p>Warranty: - 3 years from the date of inspection</p>	

Note:

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## SPECIFICATION OF “TENT (J-CLASS)”

Sr. #	Peripherals/Functions	Specifications	Compliance/ Bidder Response
1	Tent F Class	<p>Double ply &amp; single fly Tent inside measuring 8 ft wide and 8 ft long made out of 400 to 600 g/m<sup>2</sup> 100% Cotton Canvas rot &amp; water proof &amp; fireproof (Optional). The tent has 3 ft high side walls. Tent has a height of 8 ft at the center with 2 x 3 in dia &amp; 10 ft long bamboo vertical supports at edges and 1 x 3 in dia &amp; 11 ft long horizontal support on top of two long vertical supports. Vertical supports must have 3/8 to 1/2 in dia steel pins projecting out by 5 inches for tightening ropes. The horizontal support must have round shaped steel connectors at both ends and having 2-inch dia, 2 mm thickness with 1/2 inch dia hole at the center to receive vertical post pin. On two shorter sides, the tent should have openable qannat panels, conforming to the shape of opening. A blue or brown inner layer made up of cotton cloth should be fixed to enhance interior of the tent. At rear end of tent there should be double ply but single fly semicircular attached partition (for bath or cooking) some 3.5 ft wide at center. Inside tent should have Cotton Canvas rot &amp; water proof &amp; fireproof (Optional) daree</p> <p>Tent package must include 14 steel pegs each measuring 15 inches long and 1/2 dia with hooks at one end and point edge at the other end. There should be 15 small pegs measuring 6-inch length with 3/8-inch dia with hook at one end and pointed end at other side.</p> <p>The tent should durable and good in wind and outdoor camping conditions. It should be easy setup in all weather, easy to take down, easy to roll up.</p> <p>Tent should be with all parts mentioned above along 1 x 1/2 kg hammer and complete in all respects.</p> <p>Warranty: - 3 years from the date of inspection</p>	

Note:

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## SPECIFICATION OF “INK FOR PLOTTER CARTRIDGE SET”

<b>Sr. #</b>	<b>Peripherals/Functions</b>	<b>Specifications</b>	<b>Compliance</b>
1.	Black Ink Cartridge	Canon iPF825 Black Ink Cartridge - Genuine Canon PFI-703BK Ink Tank	
2.	Cyan Ink Cartridge	Canon iPF825 Cyan Ink Cartridge - Genuine Canon PFI-703C Ink Tank	
3.	Magenta Ink	Canon iPF825 Magenta Ink Cartridge - Genuine Canon PFI-703M Ink Tank	
4.	Matte Black Ink	Canon iPF825 Matte Black Ink Cartridge - Genuine Canon PFI-703MBK Ink Tank	
5.	Yellow Ink	Canon iPF825 Yellow Ink Cartridge - Genuine Canon PFI-703Y Ink Tank	

### Note:

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# CONTRACT

GOVERNMENT OF PAKISTAN  
(MINISTRY OF DEFENCE)  
**SURVEY OF PAKISTAN**  
SURVEYOR GENERAL'S OFFICE  
RAWALPINDI

**Contract No.**           /15-G-4/(    )/St, dated:    -    -2024  
Refers Supplier's Tender No.

An agreement made the \_\_\_\_\_ day of ----- Two Thousand-Twenty-Four between the President of Pakistan (herein after called the "PURCHASER" on the one part and M/s. ----  
-----, "SUPPLIER" on the other part.

Whereby it is agreed that the Purchaser shall purchase and the Supplier shall sell the stores as described in the schedule given hereunder at the price mentioned therein already transmitted through letter of intent subject to the special conditions as follow:

## SUPPLY SCHEDULE

Description of Stores	Qty/ (Units)	Bill in name of	Rate per unit (Rs.)	Total Cost (Rs.)	Delivery Date
		Drawing & Disbursing Officer, Surveyor General's Office, Survey of Pakistan, Rawalpindi			On or before
<b>Total:</b>					

WARNING: Any information about the sale/purchase of the stores under this contract shall not be communicated to any person, other than the manufacturer of the stores or to any press or agency not authorized by the Surveyor General of Pakistan/Ministry of Defence to receive it. The breach of the undertaking shall be punishable under the Official Secrets Act, 1923

## CONTRACT CONDITIONS/CLAUSES:

- 1). **Name of consignee:** The Surveyor General of Pakistan, Survey of Pakistan, Faizabad, Rawalpindi.
- 2). **Cost Dubitable to Head:** A0900-Physical Assets.
- 3). **Supplier's Name an Address:** A0960-Purchase of Computer Equipment
- 4). **Supplier's NTN No.** M/s.
- 5). **Supplier's Sales Tax Reg. No:**
- 6). **Date of Delivery:** -
- 7). **Maker's Name & Brand:** -
- 8). **Dispatch Instructions:** The stores will be dispatched to the consignee under firm's own arrangements. No part supply will be allowed in any case. Each item will be packed/marked as per relevant paper's particulars governing the supply of store/standard/trade marking worthy of transportation by Rail/Road/Air within Pakistan so as to ensure their safe arrival at ultimate destination without any loss or damaging.
- 9). **Packing & Marking Instructions:**

- 10). **Inspection:**
- a) Inspection Authority: **Technical Evaluation Committee (TEC)**
  - b) Inspection Officer: **Chairman Technical Evaluation Committee**
  - c) Place of Inspection: **Consignee's Premises**
  - d) The Inspecting Officer will be informed 02 working days in advance about the time for inspection
- 11). **Checking of Stores of Consignee's End:** All stores will be checked at consignee's premises in the presence of supplier's representatives. If, for the reasons of economy or other the supplier decides not to nominate his representative for such checking, then advance written notice to this effect will be given by the supplier to the **Senior Stores Officer, Surveyor General's Office**, Survey of Pakistan, Rawalpindi under intimation to **CPC** prior to or immediately on delivering stores. In such an event, the supplier will clearly take the decision of consignee with regard to quantities and description of a consignment, which will be taken as final and if any discrepancy found will according be made up by the supplier.
- 12). **Terms of Payment:**
- a) 100% payment of value of the stores supplied will be paid to M/s. \_\_\_\_\_, through Cheque by submission of bills duly supported by the **NOC** from **TEC**
  - b) Bill will be furnished to the SSO, SGO, Rawalpindi, which will subsequently be submitted to AGPR, Islamabad by the consignee.
- 13). **Taxes & Duties:**
- a) **Duties & Taxes Applicable:** The prices quoted are inclusive of all kinds of duties and taxes. The purchaser shall not be liable for reimbursement of duties and taxes on the contracted goods other than those given in the quoted rates. The payment of element of taxes and duties, which are included in quoted rates, will be made to the supplier only after production of duly authenticated documentary proof of its payment to the respective department. In case fresh taxes and duties are levied by the government after opening of the tender will signing of the contract and during the currency of the contract i.e., within the original delivery period) or if the existing rates of taxes are increased after opening of the tender and during the currency of the contract, liability shall be of the purchaser and the same shall be reimbursed by the AGPR, Islamabad to the supplier at actual, on production of documentary proof of his payment duly authenticated. In case of any subsequent decrease in existing or future duty or taxes by the Govt. after opening of tender and during the currency of the contract the liability shall be of the supplier and the supplier shall reimburse the same to AGPR, Islamabad under intimation to purchaser.
  - b) For release of payment, the supplier would be required to furnish the following documents to **SSO, SGO**.
    - i Proof of registration with Sales Tax Department (Copy of Registration Certificate).
    - ii Sales Tax Invoice in original showing description/quantity/value of good and current amount of Sales Tax leviable thereon.
- 14). **Bank Guarantee Clause:**
- a) To ensure timely and correct supply of stores and smooth execution of warrantee conditions the firm will furnish a bank guarantee/draft from a schedule bank for an amount of 5% of the total value of the contracted stores amounting to **Rs. \_\_\_\_\_** to **CPC**. After completion of warrantee period i.e. 03 years from the date of signing of **NOC** by **PC** the supplier will request the **CPC** through **SSO** for the withdrawal of bank guarantee/draft. The bank draft will be encased/deposited in SoP's bank account. The bank draft shall be produced by the supplier within **07 days** from the date of issue of letter of intent/signing of contract deed and shall remain in force till completion of the warrantee period beyond the date of inspection.

- b) If the supplier fails to produce the bank guarantee/draft within the specified period, the Surveyor General of Pakistan reserves the right of concealing the contract at the risk and expense of the supplier. In the event of un-satisfactory performance or of any breach of terms of the contract, the bank guarantee/draft shall be forfeited to the government at the discretion of the purchaser. On satisfactory performance of the contract the bank guarantee/draft will be returned to the supplier by CPC, on receipt of clearance from the Consignee.  
Bank guarantee/draft furnished against this contract is un-conditional and encashable at the will of purchaser. Supplier undertakes not to hinder/restrain its encashment through court, extra judicial or any other way (including administrative process).

15). **Supplier Warranty/Guarantee:**

- a) The supplier shall furnish warranty for the stores under supply against defects in material workmanship, and satisfactory performance for one year with parts and one-year free service. The stores will be of the high-test grade and consistent with general expectable standard for the stores of type ordered in full conformity with governing specifications and performance of stores with the liability of replacing defective/unacceptable part free of cost within **07 days** by the supplier on receiving the discrepancy report, failing which the purchaser shall have the right to purchase the stores (against the stores declared defective) at the supplier's risk and expense. The supplier also undertakes to make good the deficiency in supply, if any.
- b) Supplier's warranty shall be provided to the consignee along with the store.

16). **Inspection after Expiry of Delivery Period:** Unless informed and directed to the contrary during the currency of the contract, the Inspection Officer will continue the inspection of the stores at firm's risk even after expiry of delivery period. Such acceptance will not prejudice the purchaser's right to cancel the contract or to extend the delivery period with or without liquidated damages.

17). **Failure and Termination:** Should the supplier fail to deliver the stores within stipulated period of supply, on the expiry; the purchaser shall be entitled at his option to take either of the following actions:

- a) To cancel the contract or purchase from elsewhere the stores not delivered, at risk and expense of the supplier and without notice to him. The supplier shall also be liable to any loss which purchaser sustains on this account but shall not be entitled to any gain of repurchase.
- b) To make the supplier pay liquidation damages for the period of delays in supply up to the rate of 2% of the contract value un-supplied stores per month or part of a month for the period exceeding the original delivery period subject to the provision that total liquidation damages thus levied will not exceed 10%of the total contract value.
- c) If contract of the firm is cancelled at 'Risk and Expense' then the latest equivalent of their cancelled stores will be purchased at 'Risk and Expense' of the concerned firm if the cancelled type/category is not available in the market. Similarly an item of contract on FOR (indigenous) basis may be produced at risk and expenses of the firm on FOR (Imported) basis and vice-versa in the interest of the state.

18). **Force Majeure:** Force Majeure shall mean any event, act or other circumstances, not being an event, act or circumstance, under the control of the purchaser or of the supplier. Non-availability of raw material from the manufacturer of stores, or of export permit for the export of the contracted stores from the country of its origin, shall not constitute Force Majeure.

19). **Special Instructions:  
Warranty/Guarantee:**

- a) The supplier has to provide warranty/guarantee of the stores supplied for a period of 01-year standard warrantee including repair, servicing and replacement of parts from the date of issuance of NOC by the **CPC** The supplier shall replace the defective stores free of cost. Warranty/Guarantee Certificate with regards to all items being supplied would be provided to



the consignee along-with the stores.

- b) Trade mark of all items should be quoted clearly. On receipt, if any stores are found to be otherwise it will be changed/ replaced free of cost.
- c) The Supplier will be strictly bound to supply the contracted stores as per tendered specifications, and fulfill all responsibilities in this regard.

20). **Litigation:** In case of any dispute, only court of jurisdiction at Rawalpindi shall have the jurisdiction to decide the matter.

## **SIGNATURES**

### **PURCHASER**

Designation	Chairman Purchase Committee
Name	
Signature	
For and on behalf of the President of Islamic Republic of Pakistan.	

### **SUPPLIER**

Name	
Designation	
Signature	



**GOVERNMENT OF PAKISTAN**  
Ministry of Defence  
**SURVEY OF PAKISTAN**  
**Surveyor General's Office, Rawalpindi**  
Tele: 051-9290227; Fax: 051-9290229

No. 27-F-2/(CBA)/St

Dated: /January, 2024

To,  
The Director Advertisement,  
Press Information Department,  
Zero Point, Islamabad.

Sub: **PUBLICATION OF CLASSIFIED ADVERTISEMENT**

Please arrange to publish enclosed Tender Notice according to the requirements as specified hereunder:

1	Language	One English (The News) & One Urdu (Daily Express)
2	Region	Rawalpindi/Islamabad
3	No. of Insertion	Only one insertion
4	Date of Insertion	<b>27-01-2024</b>
5	Special Instructions	Due to limited funds insertion may be restricted as minimum as possible.

2. Necessary funds to meet the expenditure on above advertisement are available. Therefore, after publication of tender, bill in duplicate in the name of Drawing & Disbursing Officer, Surveyor General's Office, Survey of Pakistan, Rawalpindi along with copy of tenders published may be sent to the undersigned, for payment in due course, please.

**(MUHAMMAD ASGHAR)**  
Senior Store Officer

**N.O.O.**

Copy to:	1	Mr. Nadeem Ahmad Ch., DSG-II/CPC.	For information along with a copy of Tender Notice with the request to ensure your presence on <b>15-02-2024</b> in opening date of bids please
	2	Mr. Muhammad Arshad Iqbal, DP&RS/PD/MPC.	
	3	Mr. Shah Muhammad, DP&G/MPC.	
	4	Maj. Amir Shahzad, Manager Maintenance (EME)/MPC.	
	5	Mr. Aftab Nazir Ahmad, DD/MTEC.	
	6	Mr. Junaid Memon, AD/MTEC.	
	7	The Drawing & Disbursing Officer, SGO along with a copy of Tender Notice for information, please.	



**GOVERNMENT OF PAKISTAN**  
Ministry of Defence  
**SURVEY OF PAKISTAN**  
**Surveyor General's Office, Rawalpindi**  
Tele: 051-9290227; Fax: 051-9290229

No. 27-F-2/(CBA)/St  
Dated: /January, 2024

To,

The System Analyst, PPRA,  
Federal Bank for Cooperative (FF),  
G-5/2, Islamabad.

Att: Mr. Rizwan Mahmood

Sub: **TENDER NOTICE**

A tender notice regarding purchase of **13 x Items** by Survey of Pakistan, Faizabad, Murree Road, Rawalpindi along with bidding documents containing detailed terms and conditions, specifications, evaluation criteria, contract specimen & prescribed tender form is attached herewith.

2. It is requested that above documents may kindly be placed at your's website at the earliest. The web page which is audit requirement may also be sent along with your bill.

3. The closing date of the tender is **15-02-2024**, please.

**(MUHAMMAD ASGHAR)**  
Senior Store Officer

**N.O.O.**

Copy to: In-charge IT (MPO) with the request to upload Tender Notice on Department's website, please.

TECHNICAL EVALUATION REPORT OF GNSS RTK SYSTEM						
S. No.	TENDER SPECIFICATIONS	BIDDER	BIDDER	BIDDER	BIDDER	REMARKS
		Brand	Brand	Brand	Brand	
1	SPECIFICATIONS OF BASE & ROVER RECEIVER	Compliance	Compliance	Compliance	Compliance	
	<p><b>Positioning Accuracies</b></p> <p>a. Static and Fast Static 2.5mm + 0.5 ppm Horizontal 5 mm + 0.5 ppm Vertical</p> <p>b. Long Observation Static 3 mm + 0.1 ppm Horizontal 3.5 mm + 0.4 ppm Vertical</p> <p>c. Real Time Kinematic 8 mm + 1 ppm Horizontal 15mm + 1 ppm Vertical</p> <p>d. DGPS &lt;0.4 m RMS</p> <p>e. SBAS 1 m 3D RMS</p> <p>f. Standalone 1.5m 3D RMS</p> <p>g. PPP 10cm Horizontal and 20cm Vertical</p> <p><b>Signal Tracking</b></p> <p>a. Channels &gt; 500</p> <p>b. GPS L1 C/A, L2C, L2P L5</p> <p>c. BeiDou: B1, B2, B3</p> <p>d. BeiDou Global Signal: B1C, B2a, B2b</p> <p>e. GLONASS: L1 C/A, L1P, L2 C/A, L2P</p> <p>f. Galileo: E1, E5a, E5b,E6, E5 AltBOC,</p> <p>g. L-Band</p> <p><b>Communications</b></p> <p>a. 1 serial Port</p> <p>b. USB Type C</p> <p>c. UHF modem: Tx/Rx with full frequency range from 410-470 MHz selectable 1 &amp; 2 W Internal / 35 Watt external</p> <p>d. Transmit Power: &gt; 08 Km with Internal Radio in Optimal Conditions</p> <p>e. RTK Range: &gt; 20 Km</p> <p>f. External Radio for Extended range &gt; 10 Hz</p> <p>g. Position data output rates: V5.0 protocol, compatible with Windows OS and Android OS</p> <p>h. Bluetooth*:</p> <p>i. Calibration-free IMU integrated for Tilt Survey up to 30° tilt with 2.5 cm accuracy</p> <p>j. LED for Indication of Satellite Tracking &amp; RTK data Corrections</p> <p>k. OLED Display</p>	a	a	a	a	
	<p><b>Data Format</b></p> <p>a. Correction data I/O RTCM 2.x, 3.x formats CMR, CMR + (GPS Only) Trim Talk, Satel</p> <p><b>Environmental</b></p> <p>a. Operating temperature -40 °C to + 65 °C (-40 °F to 149 °F)</p> <p>b. Storage temperature -40 °C to + 85 °C (-40 °F to 185 °F)</p> <p>c. Humidity: 100 % non-condensing</p> <p>d. Water and dust IP67 protected from temporary immersion to depth of 1m</p> <p>e. Shock: Designed to Survive a 2 m drop onto concrete</p>	a	a	a	a	

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		Brand	Brand	Brand	Brand	
	<b>Electric &amp; Memory</b> a. Li-ion battery capacity: > 8 Hrs working & > 3000 mAh b. Memory > 6 GB	a b	a b	a b	a b	
2	<b>Rugged Field Data Controller</b> a. Android 12.0 Operating System (Sunlight readable) b. Google GMS Certification c. Full QWERTY with 10 key number pads, directional buttons and 4 programmable buttons d. 5" captive Touch panel Capacitive screen, support glove/wet hand e. Qualcomm 8 core processor or better f. Survive from a 1.6m drop g. Water and Dust resistant IP 67 or better h. -20 C to +60 C working temperature i. Qualcomm 8953 2.2GHz Android CPU or Better j. 8000 mAh, working time > 24 hours with Wifi and BT On. k. ROM 64 GB, RAM 4 GB l. Camera Rear > 12 Mega pixel with auto focus m. Blue Tooth Dual Mode 5.0 n. Holder for pole	a b c d e f g h i j k l m n	a b c d e f g h i j k l m n	a b c d e f g h i j k l m n	a b c d e f g h i j k l m n	
	<b>Field Software</b> a. Compatible with most of Android devices b. Easier survey workflow via Wizard function c. Support > 30° tilt compensation d. Support all survey modes, including Static, PPK and RTK e. Able to Import & Export f. Shape Files g. CAD Files h. CSV Data	a b c d e f g h	a b c d e f g h	a b c d e f g h	a b c d e f g h	
	<b>Post Processing Software</b> a. Provides the complete GPS/GLONASS/ BeiDou / GALILEO Processing Solution b. Support GNSS observation data in RINEX and Raw Binary Data formats c. Support different post-processing in static and kinematic modes d. Outputs analysis reports in various formats (web format, DXF, TXT, KML)	a b c d	a b c d	a b c d	a b c d	

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		Brand	Brand	Brand	Brand	
	<b>Additional Accessories for Base</b> a. One Battery set of Base Receiver. b. One set of Base UHF Antenna.	b c	b c	b c	b c	
	<b>Additional Accessories for Rover</b> a. One battery set of rover receiver. b. One set of rover UHF antenna.	b c	b c	b c	b c	
	<b>Field Training 1 week</b> a. Training for operation and preventive maintenance of equipment (Hardware and software) for 02 weeks free of charge. b. Complete Field Training on use of GNSS equipment for use in GIS and Construction Surveying c. Static Data Processing, Network Adjustment d. Field Transformation e. Construction Layout, Volume Calculation f. GIS Data upload & Download	a b c d e f	a b c d e f	a b c d e f	a b c d e f	

TECHNICAL EVALUATION REPORT OF Total Station						
S. No.	TENDER SPECIFICATIONS	BIDDER	BIDDER	BIDDER	BIDDER	REMARKS
		Brand	Brand	Brand	Brand	
1	<b>SPECIFICATIONS OF BASE &amp; ROVER RECEIVER</b>	Compliance	Compliance	Compliance	Compliance	
	<b>On Board Operating System</b>					
	a. Operating system	Linux/ Windows/ Android	a	a	a	
	b. Display	Graphic LCD,	b	b	b	
	c. Keyboard	Alphanumeric keyboard / 28 keys with backlight	c	c	c	
	d. Memory	> 40,000 points	d	d	d	
	i. USB flash memory (max. 32GB)					
	e. Interfaces'	Serial RS-232C, USB2.0 (Type A for USB flash memory)	e	e	e	
	<b>Telescope</b>					
	a. Magnification	30x	a	a	a	
	b. Resolving power	2.5"	b	b	b	
		Erect Image, Field of view: 1°30' (26m/1,000m), Minimum focus: 1.3m (4.3ft.) Reticle illumination				
	<b>Angle Measurement</b>					
	a. Minimum Display (selectable)	1"/5"	a	a	a	
	b. Accuracy	5 second	b	b	b	
	c. Dual-axis compensator	Dual-axis liquid tilt sensor, working range: ±6'	c	c	c	
2	<b>Distance Measurement</b>					
	a. Laser Type	Reflector less Class 3R. Prism/sheet Class 1	a	a	a	
	b. Measuring Standard	(D=measuring distance in mm)	b	b	b	
	c. RL Range	0.3 to 500m (1,640ft.)	c	c	c	
	d. RL Accuracy	(2 + 2ppm x D) mm	d	d	d	
	e. Sheet Accuracy	(2 + 2ppm x D) mm	e	e	e	
	f. Prism Accuracy	(1.5 + 2ppm x D) mm	f	f	f	
	<b>Standard</b>					
	a. Laser-pointer	Coaxial red laser using EDM beam	a	a	a	
	b. Levels Graphical	6' (Inner Circle)	b	b	b	
	c. Circular level (on tribrach)	10' / 2mm	c	c	c	
	d. Plummet	Optical	d	d	d	
	<b>Environmental &amp; Power</b>					
	a. Dust and water protection	IP66 (IEC 60529:2001)	a	a	a	
	b. Operating Temperature	-20 to +60°C (-4 to +140°F)	b	b	b	
	c. Battery Li-ion rechargeable battery	> 7 V, 5000 mAH or better	c	c	c	
	d. Operation Time	Approx. 14hours	d	d	d	

S. No.	TENDER SPECIFICATIONS	BIDDER	BIDDER	BIDDER	BIDDER	REMARKS
		Brand	Brand	Brand	Brand	
	<b>Application for Survey</b> a. Standard <ul style="list-style-type: none"> <li>• REM Measurement • 3D Coordinate Measurement</li> <li>• Resection • Stake Out • Topography Observation</li> <li>• Offset Measurement • Missing Line Measurement</li> <li>• Intersection</li> <li>• Surface Area Calculation • Route Surveying • Point to Line</li> </ul>	a	a	a	a	
	<b>Accessories</b> a. Original/ Branded Accessories with strong carrying case d. Rechargeable Batteries 2 e. Dual Battery charger 1 f. CD containing instruction manual 1 g. Prism with target plate 2 h. Prism Pole 2.6 meter with the covering bag i. Display 2 j. Detachable tribrach 1 k. lens cover set 1 l. cleaning brush 1 m. cover of durable plastic n. Shock absorbing carrying case with shoulder strap etc in complete o. Heavy duty wooden tripod/Fibre glass 1 p. Bipod/Catcher for prism pole Aluminium 2 q. Compass detachable tool 1 r. Canvas Covers / Bags For Total Station Box, Tripod, Prism, Prism pole, Bipod	a d e f g h i j k l m n o p q r	a d e f g h i j k l m n o p q r	a d e f g h i j k l m n o p q r	a d e f g h i j k l m n o p q r	
	<b>TRAINING</b> a. Training for operation and preventive maintenance of equipment (Hardware and software) for 02 weeks free of charge.	a	a	a	a	
	<b>WARRANTY</b> a. One year after commission on site, defective parts/assemblies will be replaced by the bidder free of charge within warranty period. After sales & services guaranty of 02 years.	a	a	a	a	



TECHNICAL EVALUATION REPORT OF AUTO LEVEL						
S. No.	TENDER SPECIFICATIONS	BIDDER	BIDDER	BIDDER	BIDDER	REMARKS
		Brand	Brand	Brand	Brand	
1	<b>SPECIFICATIONS OF BASE &amp; ROVER RECEIVER</b>	Compliance	Compliance	Compliance	Compliance	
	<b>Telescope</b>					
	a. Magnification 32 x	a	a	a	a	
	b. Resolving power 3"	b	b	b	b	
	Image - Erect, Field of view: 1° 20' (2.3m/7.5ft), Minimum focus: 0.2m(7.9in) for end of telescope 0.3m (1ft) from instrument centre					
	c. Objective Aperture 42mm (1.65 in)	c	c	c	c	
	d. Stadia Ratio 100	d	d	d	d	
	e. Focusig Knob 2-speed	e	e	e	e	
	f. Sighting Aid Peep Sight	f	f	f	f	
	<b>Accuracy (1km double run leveling)</b>					
	a. Better than 1mm	a	a	a	a	
	<b>Compensator</b>					
	a. Type Pendulum compensator with magnetic damping system	a	a	a	a	
	b. Setting Accuracy 0.3"	b	b	b	b	
	<b>Circular Level</b>					
	a. Sensitivity 10'/2mm	a	a	a	a	
	<b>Horizontal Circle</b>					
	a. Diameter 103mm (4.1in)	a	a	a	a	
	b. Minimum Division 1°/1gon	b	b	b	b	
	<b>General</b>					
	a. Water Resistance IPX6 (IEC 60529:2001)	a	a	a	a	
	b. Operating Range 20 to +50°C	b	b	b	b	

S. No.	TENDER SPECIFICATIONS	BIDDER	BIDDER	BIDDER	BIDDER	REMARKS
		Brand	Brand	Brand	Brand	
	<b>Accessories</b> a. Aluminium Heavy Duty Tripod b. Aluminium Staff Rod with double side numbers 5 Fold 5meter / 16 feet long, with covering bag & bubble c. Staff Holder, Staff transport case, 2x ground plates, 2x batteries and Charger	a b c	a b c	a b c	a b c	
2	<b>Field Training 1 week</b>					
	a. Training for operation and preventive maintenance of equipment (Hardware and software) for 02 weeks free of charge.	a	a	a	a	
	<b>Warranty</b> a. One year after commission on site, defective parts/assemblies will be replaced by the bidder free of charge within warranty period	a	a	a	a	





