

# Federal Investigation Agency



## INTEGRATED BORDER MANAGEMENT SYSTEM

**PHASE-II PROJECT**

**FY 2022-23**

**YEAR-III**

|                             |   |
|-----------------------------|---|
| <b>Tender Documents for</b> | <b>Purchase of Hardware, Software, Plant &amp; Machinery,</b> |
| <b>Tender No</b>            | <b>11/10 /2022 IBMS PHASE-II/PROJECT-FIA</b>                  |
| <b>Detail of Pages</b>      | <b>General Instructions for Bidders</b>                       |
|                             | <b>Summary Sheet of Items</b>                                 |
|                             | <b>Form for technical Proposal</b>                            |
|                             | <b>Summary Sheet Form for financial Proposal</b>              |
|                             | <b>Documents checklist for vendors</b>                        |

**Integrated Border Management System**  
**Phase II Project, Federal Investigation Agency (HQs),**  
**G-9/4, Islamabad, Telephone: 051-9262417**  
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## GENERAL INSTRUCTIONS / TENDER TERMS & CONDITIONS

(Single Stage-Two Envelope Procedure)

1. Single Stage- Two Envelope procedure will be adopted to evaluate the offer(s). The bid shall comprise a single package containing two separate envelopes; each envelope should contain separately the “**TECHNICAL PROPOSAL**” and “**FINANCIAL PROPOSAL**” in bold and legible letters are required to be delivered at IBMS PROJECT-FIA Hqrs Islamabad, G-9/4, latest by **11:00 am** on **11-10-2022**. Tenders will be opened on same date at **11:30am** in the presence of bidder.
2. Initially “**TECHNICAL PROPOSAL**” will be opened to evaluate the offer(s) with the specification(s) and required criteria mentioned in tender documents. Offer(s)/Item(s) which are not found according to the standard/specification(s) and evaluation criteria shall not be accepted and “**FINANCIAL PROPOSAL**” of such firms will be returned unopened on spot.
3. The financial proposals of bids shall be opened publicly at a time, date and venue announced and communicated to the successful bidders in advance. In case of any arithmetic error unit price shall prevail.
4. Sealed tenders addressed to the Assistant Director, Logistics IBMS, FIA Hqrs, G-9/4, Islamabad may be dropped by hand or mailed through courier, registered post; but it must be ensured that the same reaches our office well in time as late offers will not be considered.
5. **Rates:**
  - i. Only those firms are allowed to participate in the tender who are GST registered, have NTN No: and are on Active Tax Payers List of FBR.
  - ii. The bidder offering rates for Computers & Servers should have Manufacturer’s Authorization Letter (MAL).
  - iii. Offer shall be made as per our demanded specs or equivalent.
6. Bidder(s) must have sound financial position, minimum 5-year experience, well repute and capable of timely completion of supply.
7. **Bid Security:** Bids should be accompanied with **03%** of total bid value (cost with GST, if applicable) as Earnest Money (refundable) in the form of Pay Order/Demand Draft in favor of Project Director (IBMS) Phase-II Project, FIA Hqrs Islamabad. No offer will be entertained without bid security. If the purchaser feels that the bidder has provided wrong information or provided fake documents as per specifications mentioned in their offer, the earnest money will be forfeited.
8. Earnest Money will only be released if there is no objection/observation from inspection/audit teams against the firm. EM for Cat-A,B,&C Servers shall be submitted collectively, being turnkey items.
9. Preferably earnest money shall separately be submitted for each items.
10. Earnest Money in the form of cheque will not be accepted.
11. No bidder is allowed to submit its second and third offer with the same bid.

12. Only those bids(s) will be considered that would be submitted according to FIA (IBMS) tender documents format. Summary sheet (Format attached as Annex-B) at the start of financial bids is mandatory for all participants clearly mentioning items with unit price including GST wherever applicable.
13. **Delivery:** Items are required to be delivered within **22 weeks** or earlier after issuance of Purchase Order. Delivery of the ordered items at the **purchaser's** premises will be **supplier's** responsibility.
14. **Inspection:** The inspection shall be carried out at FIA Hqrs by an already approved Inspection Committee and the inspection report (findings) will be binding on you.
15. Successful supplier shall ensure close liaison with Inspection Committee for onward inspection of supplied goods. Rep of the supplier shall be present on the spot, unboxing, testing and checking in presence of inspection committee will be on part of supplier. All relevant accessories required during the course of inspection shall provide by supplier. Supplier shall ensure inspection within 72 hours of the supplied goods. During the course of inspection any delay due to non availability of rep of supplier or non availability of requisite equipment to conduct inspection, damage/misplacement to any equipment will be on part of supplier.
16. Delivery of items, stock entry will only be considered after compliance report of inspection committee.
17. All associated hardware, cables, including related accessories will be the responsibility of supplier. All
18. The goods/item(s) must be new. Refurbished/obsolete/damaged goods/item(s) will not be accepted.
19. **Taxes:** All taxes will be deducted as per rule. The offered price of the item(s) should be inclusive of GST if applicable. Income Tax will be deducted at the time of payment. Any changes in taxes/ duties/SROs levied by Govt after opening of bids will be on account of bidder. No change in offer will be accepted later on.
20. **Payment:** All payments will be made through AGPR Islamabad in Pak Rupees. The payment mode will be **"100 % Payment after Delivery"** after satisfactory performance in every aspect and inspection.
21. Bidder(s) must have an active vendor with AGPR Islamabad.
22. **Late Offers:** The quotations received late (after opening the tender) will not be considered. Cutting/over writing is not allowed, unless/until authenticated under proper signature of the authorized person.
23. Bidders shall do their proper homework well before participating in the tender process about the availability of respective item in the market or/and with OEM. No request for extension in supply timeline will be entertained. In case of any delay, the respective firm will be dealt as per rules which can also result in cancellation of Supply Order.

**6. Performance Security:** The successful bidder shall deposit 5% of the total value of contract as performance security, which will be retained by the department till expiry of warranty period. The period of warranty/guarantee will start from the date satisfactory inspection of item(s). Bill of the item will only be processed after successful inspection of the items and verification of performance guarantee from the respective bank. . 3% EM will only be released once Bank Guarantee (5%) is duly verified from respective bank.

**24.** A separate agreement shall be executed with successful bidder wherever applicable.

**25.** The quantity of item(s) can vary subject to availability of funds or requirements.

**26.** Response time of the supplier in the context of warranted services will be 24x7, shall be 1 hour from the reporting of the fault during the course of warranty period.

**27.** Installation, configuration, commissioning, fixation, assembling will be supplier's responsibility in all respect at the final destination for the items applicable.

**28.** Bids will be evaluated in a manner that the items will bring "value for money" to the organization. Offers with lower specifications than demanded specs will be liable for rejection.

**29.** Those firms are not eligible to participate in the tender whose deliveries of stores are pending/ delayed for the five months or more or their previous performance is not satisfactory, against any purchase order.

**30.** FIA (IBMS) will not be bound to explain the reason of rejection as part or whole of the tender, whatever the case may be; and decision of executive shall be final. The firm shall not be able to challenge the same in any court of law.

**31. Failure & Termination:** Incase the supplier / contractor failed to deliver the stores within specified delivery period, FIA(IBMS) Phase-II Project shall have the following options:-

i. To recover liquidated damages @ 2% of total purchase order value per month or part thereof will be imposed. The maximum limit of liquidated damages will not exceed 10% of contract value. Such damages shall be recovered from the bills, earnest money and or by withholding any amount due to be paid against this or any other purchase order.

ii. To purchase from elsewhere, without notice to you but at your risk and cost, the stores not delivered within the stipulated period and to recover excess value so paid by us from your bills or from your security and or to cancel the contract at your risk and cost.

**32. Blacklisting:** If the bidder/supplier offered wrong/fake information in bid or failed to execute order as per laid down terms and conditions in the tender/order or the performance is not satisfactory or found to be indulging in corrupt or fraudulent practices, the action for blacklisting of firm/ supplier/ contractor will be taken as per PPRA rule 19. In case of any dispute, the case will be referred to competent authority whose decision will be final.

**33. Bids Validity:** The quoted rates will be valid for **90 Days** after issuance of Purchase Order.

## **SUMMARY OF ITEMS**

| <b>(HARDWARE)</b> |   |            |
|-------------------|---|------------|
| <b>Sr. #</b>      | <b>Item Name</b>                                | <b>Qty</b> |
| 1.                | Computers                                       | 292        |
| 2.                | Cameras   | 100        |
| 3.                | Passports Scanner                               | 369        |
| 4.                | Ten Print Biometric                             | 74         |
| 5.                | Servers Type-A                                  | 12         |
| 6.                | Servers Type-B                                  | 12         |
| 7.                | Servers Type-C                                  | 06         |
| <b>Sr. #</b>      | <b>Item Name (Plant &amp; Machinery)</b>        |            |
| 8.                | Generator 50 KVA (Diesel)                       | 05         |
| 9.                | Fire Suppression System                         | 1          |
| <b>Sr. #</b>      | <b>Item Name (Software)</b>                     |            |
| 10.               | Microsoft Visual Studio (One Year Subscription) | 01         |

| S. #                        | DESCRIPTION/SPECIFICATIONS   | QTY | YES | NO | COMPLIANCE SHEET |
|-----------------------------|--|-----|-----|----|------------------|
| <b>PURCHASE OF HARDWARE</b> |  |     |     |    |                  |
| 1.                          | <b>COMPUTERS / WORKSTATIONS (INT'L BRANDS)</b><br><b>REQUIREMENTS:</b> <ol style="list-style-type: none"> <li>WIN10 PROFESSIONAL 64 BIT PREINSTALLED WITH MEDIA KIT.</li> <li>INTEL CORE I5- PROCESSOR NOT LESS THAN 3.9 GIGA HTZ (WITH TURBO BOOST)</li> <li>16 GB DDR4 RAM</li> <li>256GB SSD</li> <li>INTEGRATED GRAPHICS CARD</li> <li>GIGABIT NETWORK INTERFACE CARD RJ45 (NIC) + WIFI&amp; BLUETOOTH</li> <li>19.5" LED</li> <li>KEYBOARD &amp; MOUSE.</li> <li>3 YEARS STANDARD WARRANTY</li> </ol> <b>NOTE:</b> BIDDER PROVIDING THIS SOLUTION MUST BE AUTHORIZED OEM PARTNER, MANUFACTURER AUTHORIZATION LETTER IS ALSO REQUIRED  | 292 |     |    |                  |
| 2.                          | <b>CAMERAS FOR IMMIGRATION COUNTERS</b><br><b>BIO METRIYA (BIO DUO) OR EQUIVALENT</b><br><b>REQUIREMENTS:</b><br><b>CORE SPECIFICATION</b> <ol style="list-style-type: none"> <li>Resolution: 3 million pixels (dynamic range &gt;100dB), Near Infrared camera: 2M and above resolution</li> <li>Type: RGB plus Infrared with Binocular wide dynamics</li> <li>Identification Mode: Iris recognition / Face recognition / Multi-model face fusion recognition</li> <li>Liveness Detection: Multi-model face and iris fusion liveness detection</li> <li>Photo flood light: LED and IR dual Photo flood light, Two side NIR sources fill in light (850nm)</li> <li>Video Output Format: MJPEG, YUV</li> <li>Device Frame rate: &gt; 25 Frames</li> <li>Standoff Distance: 40 cm to 70 cm</li> <li>User Height Range: 150 to 190 cm (when installed at 170 cm, real-time tracking)</li> </ol> <b>FUNCTION SPECIFICATION</b> <ol style="list-style-type: none"> <li>User Interface: RED, GREEN &amp; BLUE indicator lights. RED-too close, BLUE-too far &amp; GREEN-appropriate distance</li> <li>Operation System: Windows 7 and above, Android 5.0 and above, Linux</li> <li>Systems Interfaces: USB 2.0 / USB 3.0</li> <li>Integration Interface: C++ SDK</li> <li>User Interaction: RED, GREEN &amp; BLUE indicator lights. RED-too close, BLUE-too far &amp; GREEN-appropriate distance. Built in 1W speaker, which can play voice prompts</li> <li>Mounting Options: Pole mount (Permanent, base stand) - Wall mount (Access control environment) Desktop mount (Office desk, Counters etc.) - Turnstile mount (e-gate)</li> </ol> <b>BIO METRIC SPECIFICATION</b> <ol style="list-style-type: none"> <li>Face Image Quality: Meets / exceeds ISO 29794-5, &gt;120 px between subject eyes</li> <li>Face Image Format: Conforms to ISO 19794-5 (JPG)</li> <li>Iris Image Quality: Meets / exceeds ISO 29794-6</li> <li>Iris Image Format: Conforms to ISO 19794-6 (RAW, BMP, PNG, JPG)</li> <li>Face Mask: Acceptable</li> <li>Performance: More than 25 frames per second</li> </ol> <b>OTHER</b> <ol style="list-style-type: none"> <li>Power supply: Low DC power consumption. 5V -1A or USB Connectivity or equivalent. Plug and Play</li> <li>Rotating Components: Angle sensor, DC motor</li> </ol> | 100 |     |    |                  |
| 3.                          | <b>PASSPORTS SCANNER FOR IMMIGRATION COUNTERS</b><br><b>OSMOND (R) OR EQUIVALENT</b><br><b>REQUIREMENT:</b> <ol style="list-style-type: none"> <li>ACTIVE SCAN AREA NOT LESS THAN 129 MM × 89 MM</li> <li>IMAGE RESOLUTION NOT LESS THAN 700 PPI</li> <li>SENSOR NOT LESS THAN 12 MPIXEL</li> </ol>  | 369 |     |    |                  |

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|    | <ul style="list-style-type: none"> <li>4. GLARE-FREE IMAGE SCANNING</li> <li>5. IMAGE FORMATS BMP, JPG, JPG2000 AND PNG</li> <li>6. AUTOMATIC DOCUMENT DETECTION (ADD)</li> <li>7. REFLECTION REMOVAL (RR) FEATURE</li> <li>8. WINDOWS SUPPORTIVE</li> <li>9. COMPATIBLE WITH IBMS (FIA) SOFTWARE AND ITS APPLICATIONS.</li> <li>10. RFID FUNCTIONS WITH ABILITY TO READ BARCORDER AND ALL OTHER ICAO STANDARDS</li> <li>11. BPOWER SUPPLY UNIVERSAL EXTERNAL POWER SUPPLY, 100-240 V</li> <li>12. STANDARD WARRANTY</li> <li>13. OPERATING TEMPERATURE 5 °C TO 45 °C OPERATING HUMIDITY 0-90 % (NON-CONDENSING)</li> </ul>   |    |  |  |  |
| 4. | <p><b>BIOMETRIC FINGER PRINT DEVICES</b><br/> <b>MODEL NO: THUMB DIGITIZER MORPHO TOP CLASSIC 100 OR EQUIVALENT</b><br/> <b>REQUIREMENTS</b></p> <ul style="list-style-type: none"> <li>1. 4.4.2 (THUMB DIGITIZER) OR EQUIVALENT</li> <li>2. THE BIDDER OFFERING RATE FOR THIS ITEM SHOULD HAVE AUTHORIZED DEALERSHIP (OEM). MANUFACTURER'S AUTHORIZATION LETTER (MAL) IS ALSO MANDATORY FOR THIS ITEM.</li> <li>3. USB 2.0 INTERFACE (POWERED BY USB),</li> <li>4. SCANNING TIME LESS THAN 2 SECONDS IN AUTOMATIC MODE,</li> <li>5. 500 DPI IMAGE RESOLUTION,</li> <li>6. COMPATIBLE WITH FBI IQS IAFIS IMAGE QUALITY SPECIFICATION, SUPPORT FOR WINDOWS XP, WINDOWS 7/8 IN 32 AND 64 BIT OPERATING MODES,</li> <li>7. C# NET COMPATIBLE SDK FOR EASY INTEGRATION INCLUDING SUPPORT FOR JAVA API (WINDOWS AND LINUS OS),</li> <li>8. SUPPORT FOR ISQ 19794-2 CARD COMPACT FINGERPRINT TEMPLATES,</li> <li>9. AUTOMATIC SEGMENTATION OF FOUR FINGER SLAP AND TWO THUMB SLAP IMAGE INTO DISCRETE SINGLE-FINGER IMAGE</li> <li>10. (FBI-CERTIFIED WSQ AND OTHER FORMATS SUCH AS JPEG, BMP ETC),</li> <li>11. REAL-TIME IMAGE QUALITY CHECKING WITH SUPPORT TO HANDLE DAMAGED, BANDAGED OR AMPUTATED FINGERS,</li> <li>12. SUPPORT FOR AUTO CAPTURE ON SLAP/FINGERS PLACEMENT AS WELL AS MANUAL MODE,</li> <li>13. MTBF MORE THAN 50000 HOURS.</li> <li>14. COMPLIANT WITH FBI IAFIS-IQS APPENDIX F, ANSI-NIST AND GSA FIPS 201 PIV CERTIFIED&amp; ROHS</li> <li>15. VERIF LICENSE FOR DE-DUPLICATION CHECK ON DEVICE</li> <li>16. STANDARD 3-YEAR OEM VERIFIED WARRANTY/GUARANTEE.</li> </ul> | 74 |  |  |  |
| 5. | <p><b>SERVER (CAT-A)</b></p> <ul style="list-style-type: none"> <li>1. FORM FACTOR: 2U 2-SOCKET SERVER WITH 3RD GENERATION INTEL XEON SCALABLE PROCESSOR</li> <li>2. PROCESSOR: 2X INTEL® XEON® GOLD 6326 PROCESSOR (24M CACHE, 2.90 GHZ)</li> <li>3. MEMORY: 4X 64GB 3200 MHZ (2RX4 1.2V) RDIMM REQUIRED. 32 DIMM SLOTS WITH TWO PROCESSORS (16 DIMM SLOTS PER PROCESSOR) SUPPORTED. UP TO 4TB SUPPORTED</li> <li>4. SSDS: <ul style="list-style-type: none"> <li>a. 2 x 600GB SAS SSDs AFTER RAID 1.</li> <li>b. NOT LESS THAN USABLE 14TB STORAGE AFTER RAID 1+0 (MINIMUM 4 DISKS) MAINSTREAM SAS 12GBps HOT SWAP SSDs WITH MEDIA RETENTION. EACH DRIVE SHOULD NOT BE GREATER THAN 4TB. SSDs SHOULD DELIVER EXTENDED ENDURANCE OF UP TO 3 DRIVE WRITES PER DAY (DWPD) FOR 7 YEARS, WHICH IS SUITABLE FOR MANY ENTERPRISE APPLICATIONS. MTBF 2,000,000 HOURS.</li> </ul> </li> <li>5. RAID: PCIE 4.0 12 GBPS SAS RAID CONTROLLERS ADAPTERS SUPPORT RAID LEVELS 0, 1, 10, 5, 50, 6 AND 60. 8GB OR HIGHER INTEGRATED FLASH-BACKED CACHE. SUPPORTS UP TO 16 INTERNAL SAS OR SATA DRIVES</li> <li>6. NETWORK ADAPTER: 1GBE RJ45 4-PORT ETHERNET ADAPTER REQUIRED. 1GBE DEDICATED MANAGEMENT PORT REQUIRED. 10GBE OR 25GBE SUPPORTED.</li> <li>7. REMOTE MANAGEMENT: REMOTE MANAGEMENT CONSOLE WITH REMOTE DESKTOP ACCESS UPTO SETUP AND RAID CONTROLLER</li> </ul>  | 12 |  |  |  |

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|    | <p>LEVELS, ALONGWITH ENTERPRISE LEVEL LICENSING. 1GBE DEDICATED MANAGEMENT PORT REQUIRED.</p> <p>8. FC HBA: 2X 16GB GEN6 FC DUAL-PORT HBA WITH TRANSCIEVERS</p> <p>9. PCIE UP TO 8X PCIE 4.0 SLOTS SUPPORTED</p> <p>10. GPU: 1X NVIDIA A16 64GB PCIE GPU REQUIRED</p> <p>11. RAIL KIT: RAIL KIT WITH 2U CMA</p> <p>12. TPM: TPM 2.0 AND SECURE BOOT</p> <p>13. BEZEL KIT: 2U SECURITY BEZEL</p> <p>14. PSU: 2X 2400W (230V/115V) HOT-SWAP POWER SUPPLY</p> <p>15. WARRANTY, SERVICES &amp; SUPPORT: PRO SUPPORT/COMPREHENSIVE SUPPORT 7 YRs 24X7 24HR COMMITTED SERVICE REPAIR + DEFECTIVE MEDIA RETENTION (DMR)</p> <p>16. OPERATING SYSTEMS SUPPORTED: MICROSOFT WINDOWS SERVER, RED HAT ENTERPRISE LINUX, SUSE LINUX ENTERPRISE SERVER, VMWARE ESXI</p> <p>17. OS REQUIRED: ORACLE LINUX 8 OR ABOVE OL8 (<i>specifications can be seen at last page</i>)</p> <p>18. ADDITIONAL CONDITIONS: BIDDER PROVIDING THIS SOLUTION MUST BE AUTHORIZED OEM PARTNER, MANUFACTURER AUTHORIZATION LETTER IS ALSO REQUIRED</p> <p><b>NOTE:-</b></p> <ul style="list-style-type: none"> <li>➤ 6 x SERVER RACK, 42U,</li> <li>➤ 2 X BRANDED 0U VERTICAL PDUs (32AMP) ALONG WITH ATLEAST 12 X C13 PORTS AND 4 X C19 PORTS EACH WITH POWER BRAKERS PER RACK</li> <li>➤ 2 X INDUSTRIAL SOCKETS 32AMP MALE &amp; FEMALE FOR ATTACHING PDUs WITH 6KVA UPS ON EACH RACK, WITH FITTING &amp; COMPLETE ACCESSORIES PER RACK</li> <li>➤ 6 X KVM CONSOLE WITH LCD, KVM SWITCH 8 PORT ALONG WITH CONNECTIVITY CABLES</li> </ul>   |    |  |  |  |
| 6. | <p><b>SERVER (CAT-B)</b></p> <p>1. FORM FACTOR: 2U 2-SOCKET SERVER WITH 3RD GENERATION INTEL XEON SCALABLE PROCESSOR</p> <p>2. PROCESSOR: 2X INTEL® XEON® GOLD 6326 PROCESSOR (24M CACHE, 2.90 GHZ)</p> <p>3. MEMORY: 4X 32GB 3200 MHZ (2RX4 1.2V) RDIMM REQUIRED. 32 DIMM SLOTS WITH TWO PROCESSORS (16 DIMM SLOTS PER PROCESSOR) SUPPORTED. UP TO 4TB SUPPORTED</p> <p>4. SSDS:</p> <ul style="list-style-type: none"> <li>a. 2 x 600GB SAS SSDs AFTER RAID 1.</li> <li>b. NOT LESS THAN USABLE 9TB STORAGE AFTER RAID 1+0(MINIMUM 4 DISKS). MAINSTREAM SAS 12GBps HOT SWAP SSDs WITH MEDIA RETENTION. EACH DRIVE SHOULD NOT BE GREATER THAN 4TB. SHOULD DELIVER EXTENDED ENDURANCE OF UP TO 3 DRIVE WRITES PER DAY (DWPD) FOR 7 YEARS, WHICH IS SUITABLE FOR MANY ENTERPRISE APPLICATIONS. MTBF 2,000,000 HOURS.</li> </ul> <p>5. RAID: PCIE 4.0 12 GBPS SAS RAID CONTROLLERS ADAPTERS SUPPORT RAID LEVELS 0, 1, 10, 5, 50, 6 AND 60. 8GB OR HIGHER INTEGRATED FLASH-BACKED CACHE. SUPPORTS UP TO 16 INTERNAL SAS OR SATA DRIVES</p> <p>6. NETWORK ADAPTER: 1GBE RJ45 4-PORT ETHERNET ADAPTER REQUIRED. 1GBE DEDICATED MANAGEMENT PORT REQUIRED. 10GBE OR 25GBE SUPPORTED</p> <p>7. REMOTE MANAGEMENT: REMOTE MANAGEMENT CONSOLE WITH REMOTE DESKTOP ACCESS UPTO SETUP AND RAID CONTROLLER LEVELS, ALONGWITH ENTERPRISE LEVEL LICENSING. 1GBE DEDICATED MANAGEMENT PORT REQUIRED.</p> <p>8. FC HBA: 2X 16GB GEN6 FC DUAL-PORT HBA WITH TRANSCIEVERS</p> <p>9. PCIE UP TO 8X PCIE 4.0 SLOTS SUPPORTED</p> <p>10. GPU: 1X NVIDIA A16 64GB PCIE GPU REQUIRED.</p> <p>11. RAIL KIT: RAIL KIT WITH 2U CMA</p> <p>12. TPM: TPM 2.0 AND SECURE BOOT</p> <p>13. BEZEL KIT: 2U SECURITY BEZEL</p> <p>14. PSU: 2X 2400W (230V/115V) HOT-SWAP POWER SUPPLY</p> <p>15. WARRANTY, SERVICES &amp; SUPPORT: PRO SUPPORT/COMPREHENSIVE SUPPORT 7YRs 24X7 24HR COMMITTED SERVICE REPAIR + DEFECTIVE MEDIA RETENTION (DMR)</p> <p>16. OPERATING SYSTEMS SUPPORTED: MICROSOFT WINDOWS SERVER, RED HAT ENTERPRISE LINUX, SUSE LINUX ENTERPRISE SERVER,</p> | 12 |  |  |  |



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|  | <p>VMWARE ESXI</p> <p>17. OS REQUIRED: ORACLE LINUX 8 OR ABOVE</p> <p>18. ADDITIONAL CONDITIONS: BIDDER PROVIDING THIS SOLUTION MUST BE AUTHORIZED OEM PARTNER, MANUFACTURER AUTHORIZATION LETTER IS ALSO REQUIRED.</p> <p><b>NOTE:-</b></p> <ul style="list-style-type: none"> <li>➤ 6 x SERVER RACK, 42U,</li> <li>➤ 2 X BRANDED 0U VERTICALPDU(32AMP) ALONG WITH ATLEAST 12 X C13 PORTS AND 4 X C19 PORTS EACH WITH POWER BRAKERS PER RACK</li> <li>➤ 2 X INDUSTRIAL SOCKETS 32AMP MALE &amp; FEMALE FOR ATTACHING PDUs WITH 6KVA UPS ON EACH RACK, WITH FITTING &amp; COMPLETE ACCESSORIES PER RACK</li> <li>➤ 6 X KVM CONSOLE WITH LCD, KVM SWITCH 8 PORT ALONG WITH CONNECTIVITY CABLES</li> </ul>   |    |  |  |  |
| 7.                                       | <p><b>SERVER (CAT-C)</b></p> <ol style="list-style-type: none"> <li>1. FORM FACTOR:2U 2-SOCKET SERVER WITH 3RD GENERATION INTEL XEON SCALABLE PROCESSOR</li> <li>2. PROCESSOR:2 X INTEL® XEON® GOLD 6326 PROCESSOR (24M CACHE, 2.90 GHZ,16C)</li> <li>3. MEMORY: 4X 16GB 3200 MHZ (2RX4 1.2V) RDIMM REQUIRED. 32 DIMM SLOTS WITH TWO PROCESSORS (16 DIMM SLOTS PER PROCESSOR) SUPPORTED. UP TO 4TB SUPPORTED</li> <li>4. SSDS: <ol style="list-style-type: none"> <li>a. 2 x 600GB SAS SSDs AFTER RAID 1.</li> <li>b. NOT LESS THAN USABLE 6TB STORAGE AFTER RAID 1+0(MINIMUM 4 DISKS). MAINSTREAM SAS 12GBps HOT SWAP SSDs WITH MEDIA RETENTION. EACH DRIVE SHOULD NOT BE GREATER THAN 4TB. SHOULD DELIVER EXTENDED ENDURANCE OF UP TO 3 DRIVE WRITES PER DAY (DWPD) FOR 7 YEARS, WHICH IS SUITABLE FOR MANY ENTERPRISE APPLICATIONS. MTBF 2,000,000 HOURS</li> </ol> </li> <li>5. RAID: PCIE 4.0 12 GBPS SAS RAID CONTROLLERS ADAPTERS SUPPORT RAID LEVELS 0, 1, 10, 5, 50, 6 AND 60. 8GB OR HIGHER OF INTEGRATED FLASH-BACKED CACHE. SUPPORT UP TO 16 INTERNAL SAS OR SATA DRIVES.</li> <li>6. NETWORK ADAPTER: 1GBE RJ45 4-PORT ETHERNET ADAPTER REQUIRED.</li> <li>7. REMOTE MANAGEMENT: REMOTE MANAGEMENT CONSOLE WITH REMOTE DESKTOP ACCESS UPTO SETUP AND RAID CONTROLLER LEVELS, ALONGWITH ENTERPRISE LEVEL LICENSING. 1GBE DEDICATED MANAGEMENT PORT REQUIRED.</li> <li>8. FC HBA:2X 16GB GEN6 FC DUAL-PORT HBA WITH TRANSCEIVERS</li> <li>9. PCIE UP TO 8X PCIE 4.0 SLOTS SUPPORTED</li> <li>10. GPU: 1X NVIDIA A16 64GB PCIE GPU REQUIRED</li> <li>11. RAIL KIT: RAIL KIT WITH 2U CMA</li> <li>12. TPM:TPM 2.0 AND SECURE BOOT</li> <li>13. BEZEL KIT: 2U SECURITY BEZEL</li> <li>14. PSU:2X 2400W (230V/115V) HOT-SWAP POWER SUPPLY</li> <li>15. WARRANTY, SERVICES &amp; SUPPORT: PRO SUPPORT/COMPREHENSIVE SUPPORT 7Yrs 24X7 24HR COMMITTED SERVICE REPAIR + DEFECTIVE MEDIA RETENTION (DMR)</li> <li>16. OPERATING SYSTEMS SUPPORTED:MICROSOFT WINDOWS SERVER, RED HAT ENTERPRISE LINUX, SUSE LINUX ENTERPRISE SERVER, VMWARE ESXI</li> <li>17. OS REQUIRED: ORACLE LINUX 8 OR ABOVE</li> <li>18. ADDITIONAL CONDITIONS: BIDDER PROVIDING THIS SOLUTION MUST BE AUTHORIZED OEM PARTNER, MANUFACTURER AUTHORIZATION LETTER IS ALSO REQUIRED.</li> </ol> <p><b>NOTE:-</b></p> <ul style="list-style-type: none"> <li>➤ 3 x SERVER RACK, 42U,</li> <li>➤ 2 X BRANDED 0U VERTICAL PDUs (32AMP) ALONG WITH ATLEAST 12 X C13 PORTS AND 4 X C19 PORTS EACH WITH POWER BRAKERS PER RACK</li> <li>➤ 2 X INDUSTRIAL SOCKETS 32AMP MALE &amp; FEMALE FOR ATTACHING PDUs WITH 6KVA UPS ON EACH RACK, WITH FITTING &amp; COMPLETE ACCESSORIES PER RACK</li> <li>➤ 3 X KVM CONSOLE WITH LCD, KVM SWITCH 8 PORT ALONG WITH CONNECTIVITY CABLES</li> </ul> | 06 |  |  |  |
| <b>PURCHASE OF PLANT &amp; MACHINERY</b> |  |    |  |  |  |

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| 8. | <p><b>GENERATOR 50 KVA (DIESEL)</b><br/> <b>SUPPLY INSTALLATION , TESTING AND COMMISSIONING OF 50 KVA DIESEL GENERATOR SET ALONG WITH ATS PANEL, CANOPY, EARTHING, FOUNDATION PAD AND ALL NECESSARY ARRANGEMENT</b></p> <ol style="list-style-type: none"> <li>EQUIPMENT: SKID MOUNTED 50 KVA PRIME GENSET</li> <li>ENGINE MAKE: ISO 3046/BS 5514/DIN 6251 PERKINS (UK), CATERPILLAR (UK), VOLVO (UK). / U.S. MADE OR EQUIVALENT. CHINA BRAND AND ASSEMBLED IN CHINA IS NOT ALLOWED.</li> <li>PRIME POWER: 50 KVA</li> <li>STANDBY POWER: 50 KVA</li> <li>POWER FACTOR :0.9</li> <li>VOLTAGE (+OR-5%): 220/440 VOLTS</li> <li>FREQUENCY: 50 HERTZ</li> <li>SPEED :1500 RPM</li> <li>FUEL TANK: BUILT IN SKID AT-LEAST 8 HOURS OPERATION</li> <li>CANOPY: STANDARD (SOUND AND WEATHER PROOF) SUITABLE FOR 50KVA DG SET. COMPACT WITH THE UNIT.</li> <li>AMF PANEL: COMPLETE WITH AMF PANEL, DEEP SEA OR EQUIVALENT</li> <li>PHASE : 03 PHASE</li> <li>ENGINE OUTPUT: 80 HP</li> <li>ASPIRATION AND</li> <li>COOLING: TURBOCHARGED AND WATER COOLED</li> <li>NO. OF CYLINDERS: 3 CYLINDERS IN-LINE</li> <li>HEATING: JACKET WATER HEATER(AT AUTOMATIC</li> <li>MODELS)</li> <li>ALTERNATOR MAKE: STAMFORD, MARRELI, LEROY SOMER OR EQUIVALENT</li> <li>ALTERNATOR :DG SET IEC -60034-1SUITABLE FOR ABOVE</li> <li>DESIGN: BRUSHLESS SINGLE BEARING, REVOLVING FIELD,</li> <li>2/3 PITCH, SINGLE BEARING, FLEXIBLE DISC</li> <li>INSULATION SYSTEM: CLASS H</li> <li>STANDARD TEMPERATURE RISE 125 -163°C CONTINUOUS</li> <li>EXCITER TYPE: SELF-EXCITED</li> <li>PROTECTION: STANDARD DEGREE OF PROTECTION IP21</li> <li>ATS PANEL ACCESSORIES: COMPLETE WITH FITTINGS.</li> <li>GENERATOR METERING PHASE: VOLT METER ,AMPERE METER, SELECTOR SWITCH, FREQUENCY METER, GENERATOR SET MONITORING, DC VOLTAGE, COOLANT TEMPERATURE, OIL PRESSURE, HOUR RUN TIME, RPM CONTROLS, START STOP CONTROL , VOLTAGE CONTROL</li> <li>LCD : CONTROL LCD BRIGHTNESS IN LOW BRIGHTNESS ENVIRONMENT</li> <li>STANDARD INDICATIONS LOW OIL PRESSURE SHUT DOWN, HIGH COOLANT TEMPERATURE SHUT DOWN, EMERGENCY STOP SHUTDOWN.</li> <li>POWER CABLE :35-50 MMSQ 4CORE</li> <li>CONTROL CABLE :2.5 MMSQ 8CORE</li> <li>SYNCHRONIZATION SYNCHRONIZATION OF 1*50 KVA DG SETS (LOAD SYNC)</li> <li>ANTI VIBRATION MOUNTINGS: ANTI VIBRATION MOUNTINGS FITTED BETWEEN THE ENGINE/ALTERNATOR FEET AND BASE</li> <li>RCC FOUNDATION: RCC FOUNDATION 18" DEPTH AND EARTHING</li> <li>SERVICES : SUPPLY, COMPLETE INSTALLATION , TESTING AND COMMISSIONING WITH FOUNDATION PAD AND EARTHING</li> </ol> | 05 |  |  |  |
| 9. | <p><b>FIRE DETECTION &amp; SUPPRESSION SYSTEM</b><br/> <b>1. SCOPE OF WORK</b><br/>         THE SCOPE OF WORK TO BE DONE UNDER THIS SECTION OF THE SPECIFICATIONS INCLUDES DESIGN, SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF FIRE DETECTION&amp; SUPPRESSION SYSTEM WITH FK-5-1-12,FIRE SUPPRESSION SYSTEM WITH CONTROL PANEL, AUTOMATIC DETECTORS, MANUAL PULL STATION, NOTIFICATION APPLIANCES, ABORT SWITCH, MANUAL RELEASE STATION, AGENT RELEASE MODULE, RELAY MODULE, MONITOR MODULE, REMOTE ALARM LED AND AUTO GAS FIRE SUPPRESSION SYSTEM (FK-5-1-12) COMPLETE WITH CYLINDER ASSEMBLY, CYLINDER MANIFOLD, (WHERE APPLICABLE), FACTORY FILLED CONTAINERS EQUIPPED WITH DISCHARGE VALVE, SAFETY PLUG , FILL PORT, IMPULSE VALVE OPERATOR/ SOLENOID VALVE, DISCHARGE PRESSURE SWITCH,</p>   | 1  |  |  |  |

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|  | <p>PRESSURE GAUGES, DISCHARGE NOZZLES, BLACK STEEL SCHEDULE 40 PIPING NETWORK WITH ALL ACCESSORIES, PAINTING / FINISHING, TESTS AND AS SPECIFIED HEREIN AND/OR AS DIRECTED BY THE ENGINEER.</p> <p><b>2. APPLICABLE STANDARDS AND PUBLICATIONS:</b><br/>THE DESIGN, EQUIPMENT, INSTALLATION, TESTING AND MAINTENANCE OF THE CLEAN AGENT SYSTEM SHALL BE IN COMPLIANCE AND ACCORDANCE WITH THE APPLICABLE REQUIREMENTS SET FORTH IN THE LATEST EDITION OF THE FOLLOWING CODES, STANDARDS:</p> <ul style="list-style-type: none"> <li>i. NFPA NO.2001 - CLEAN AGENT FIRE EXTINGUISHING SYSTEMS</li> <li>ii. NFPA NO. 70 - NATIONAL ELECTRICAL CODE</li> <li>iii. NFPA NO. 101- LIFE SAFETY CODE</li> <li>iv. VDS APPROVED</li> <li>v. UNDERWRITERS LABORATORY FK-5-1-12 CLEAN AGENT.</li> </ul> <p><b>3. ENVIRONMENTAL PROPERTIES</b></p> <ul style="list-style-type: none"> <li>i. NO OZONE DEPLETION POTENTIAL ODP 0</li> <li>ii. LOW GLOBAL WARMING POTENTIAL GWP 1</li> <li>iii. ATMOSPHERIC LIFE TIME LESS THAN 140 HOURS</li> </ul> <p><b>4. QUALITY ASSURANCE:</b></p> <p><b>4.1 MANUFACTURER:</b><br/><b>4.1.1</b> THE MANUFACTURER OF THE FIRE ALARM SYSTEM AND CLEAN AGENT SYSTEM HARDWARE SHALL HAVE A MINIMUM OF 15YEARS' EXPERIENCE IN THE DESIGN AND MANUFACTURE OF SIMILAR TYPES OF SUPPRESSION SYSTEMS AND W.H.O REFER TO SIMILAR INSTALLATIONS PROVIDING SATISFACTORY SERVICE.<br/><b>4.1.2</b> SYSTEM SHALL BE VDS CERTIFIED.</p> <p><b>4.2 INSTALLER:</b><br/><b>4.2.1</b> THE INSTALLING CONTRACTOR SHALL BE TRAINED BY THE SUPPLIER TO DESIGN, INSTALL, TEST AND MAINTAIN A CLEAN AGENT SYSTEM.<br/><b>4.2.2</b> THE INSTALLING CONTRACTOR SHALL BE AN EXPERIENCED FIRM REGULARLY ENGAGED IN THE INSTALLATION OF AUTOMATIC CLEAN AGENT, OR SIMILAR, FIRE SUPPRESSION SYSTEMS IN STRICT ACCORDANCE WITH ALL APPLICABLE STANDARDS.<br/><b>4.2.3</b> THE INSTALLING CONTRACTOR MUST HAVE A MINIMUM OF FIVE (5) YEARS EXPERIENCE IN THE DESIGN, INSTALLATION AND TESTING OF CLEAN AGENT, OR SIMILAR, FIRE SUPPRESSION SYSTEMS. A LIST OF SYSTEMS OF A SIMILAR NATURE AND SCOPE SHALL BE PROVIDED ON REQUEST.<br/><b>4.2.4</b> THE INSTALLING CONTRACTOR SHALL BE AN AUTHORIZED STOCKING DISTRIBUTOR OF THE CLEAN AGENT SYSTEM EQUIPMENT SO THAT IMMEDIATE REPLACEMENT PARTS ARE AVAILABLE FROM INVENTORY.</p> <p><b>4.3 ORIGIN OF SUPPLY:</b><br/>COMPLETE EQUIPMENT AND MATERIAL TO BE SUPPLIED UNDER THE CONTRACT SHALL BE OF IMPORTED ORIGIN AND SHALL BE PROVIDED FROM USA / WESTERN EUROPE ORIGIN. HOWEVER, PIPE MAY BE OF LOCAL ORIGIN AS PER SPECIFICATIONS.</p> <p><b>5. FIRE SUPPRESSION SYSTEM:</b><br/><b>5.1</b> SYSTEM SEQUENCE OF OPERATION:<br/>AUTOMATIC OPERATION OF EACH PROTECTED AREA SHALL BE AS FOLLOW:<br/><b>5.1.1</b> ACTUATION OF ONE (1) DETECTOR, WITHIN THE SYSTEM, SHALL:<br/><b>5.1.2</b> ILLUMINATE THE "ALARM" LAMP ON THE CONTROL PANEL FACE.<br/><b>5.1.3</b> ENERGIZE AN ALARM BELL AND/OR AN OPTIONAL VISUAL INDICATOR.<br/><b>5.2</b> TRANSFER SETS OF 5 AMP RATED AUXILIARY CONTACTS WHICH CAN PERFORM AUXILIARY SYSTEM FUNCTIONS SUCH AS:<br/><b>5.2.1)</b> OPERATE DOOR HOLDER/CLOSURES ON ACCESS DOORS (IF APPLICABLE).<br/><b>5.2.2)</b> TRANSMIT A SIGNAL TO A FIRE ALARM SYSTEM.<br/><b>5.2.3)</b> SHUTDOWN COOLING SYSTEM (EQUIPMENT, IF APPLICABLE).<br/><b>5.2.4)</b> LIGHT AN INDIVIDUAL LAMP ON AN OPTIONAL GRAPHIC ANNUNCIATOR. (IF APPLICABLE)<br/><b>5.3</b> ACTUATION OF A 2ND DETECTOR, WITHIN THE SYSTEM, SHALL:<br/><b>5.3.1</b> ENERGIZE A PRE-DISCHARGE HORN OR HORN/STROBE DEVICE.<br/><b>5.3.2</b> SHUT DOWN THE COOLING SYSTEM AND/OR CLOSE DAMPERS (IF APPLICABLE).<br/><b>5.3.3</b> START TIME-DELAY SEQUENCE (NOT TO EXCEED 40 SECONDS).<br/><b>5.3.4</b> SYSTEM ABORT SEQUENCE IS ENABLED AT THIS TIME.<br/><b>5.3.5</b> LIGHT AN INDIVIDUAL LAMP ON AN OPTIONAL GRAPHIC</p> |  |  |  |
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|     | <p>ANNUNCIATOR. (IF APPLICABLE)</p> <p>5.4 AFTER COMPLETION OF THE TIME-DELAY SEQUENCE, THE CLEAN AGENT FIRE SUPPRESSION SYSTEM SHALL ACTIVATE AND THE FOLLOWING SHALL OCCUR:</p> <p>A. ILLUMINATE A "RELEASE" LAMP ON THE CONTROL PANEL FACE.</p> <p>B. SHUTDOWN OF ALL POWER TO HIGH-VOLTAGE EQUIPMENT</p> <p>C. ENERGIZE A VISUAL INDICATOR(S) OUTSIDE THE HAZARD IN WHICH THE DISCHARGE OCCURRED.</p> <p>D. ENERGIZE A "SYSTEM RELEASE" AUDIBLE DEVICE. (IF APPLICABLE)</p> <p>5.5 THE SYSTEM SHALL BE CAPABLE OF BEING ACTUATED BY MANUAL DISCHARGE DEVICES LOCATED.</p> <p>AT CYLINDER AND AT PANEL. OPERATION OF A MANUAL DEVICE SHALL DUPLICATE THE SEQUENCE DESCRIPTION ABOVE EXCEPT THAT THE TIME DELAYS AND ABORT FUNCTIONS SHALL BE BY PASSED. THE MANUAL DISCHARGE STATION SHALL BE OF THE ELECTRICAL ACTUATION TYPE AND SHALL BE SUPERVISED AT THE MAIN CONTROL PANEL.</p> <p>5.6 THE SYSTEM SHALL BE CAPABLE OF PROVIDING A "PRE-ALARM" FEATURE THAT CAN GIVE ADVANCED WARNING OF A POSSIBLE ALARM CONDITION.</p> <p>5.7 TEN YEARS PARTS AVAILABILITY AND SUPPORT SERVICES REQUIRED FROM LOCAL PARTNER.</p> <p>FIRE SUPPRESSION SYSTEM SHALL BE INSTALLED IN DATA CENTER:</p> |    |  |  |  |
| 10. | <p><b>MICROSOFT VISUAL STUDIO PROFESSIONAL 2022</b></p> <p><b>(ONE YEAR SUBSCRIPTION)</b></p> <ol style="list-style-type: none"> <li>HAVING FEATURE OF SOURCE CONTROL MANAGEMENT, AND ARTIFACT REPOSITORY.</li> <li>64-BIT APPLICATION</li> <li>ABILITY TO BUILD MODERN APPS</li> <li>SYSTEM COMPATIBLE</li> <li>ONE YEAR LICENSE SUBSCRIPTION</li> <li>ONLINE REGISTERED</li> </ol>   | 01 |  |  |  |

**ANNEXURE – B****SUMMARY SHEET FOR FINANCIAL PROPOSAL**  
**TENDER NO: 11 /10 /2022/IBMS PHASE-II PROJECT/FIA**

DATE:

| S. No | Description/Specifications | Qty | Unit Price<br>(to be quoted<br>including GST) | Total Value |
|-------|----------------------------|-----|---|-------------|
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**UNDERTAKING:**

I/We, agree with the terms/conditions of tender inquiry. All items quoted are as per FIA(IBMS) Phase-II Project required specifications. We have carefully read the terms and conditions mentioned in tender documents. We accept all these conditions.

**SIGNATURE & SEAL OF THE BIDDER**  
**CNIC NO: OF THE BIDDER**

**TO BE PRINTED ON COMPANY'S LETTERHEAD**

**ANNEXURE – C****DOCUMENTS CHECKLIST FOR VENDORS**

| <b>SR. #</b> | <b>DOCUMENTS</b>                                      | <b>ATTACHED<br/>(PLEASE TICK)</b> |
|--------------|---|-----------------------------------|
| 1.           | Request Letter for Documents                          |                                   |
| 2.           | CNIC Copy   |                                   |
| 3.           | Company Profile                                       |                                   |
| 4.           | Company Turnover/Bank Statement 02 years              |                                   |
| 5.           | Bids Security   |                                   |
| 6.           | Technical Proposal                                    |                                   |
| 7.           | Financial Proposal                                    |                                   |
| 8.           | Legal Status undertaking (company is not blacklisted) |                                   |
| 9.           | Delivery schedule undertaking                         |                                   |
| 10.          | Vendor details (NTN, GST Certificates etc)            |                                   |

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OL8 specifications are attached below with 1 year subscription

| Enterprise support SLA and Patches |  | Centralized Management                         |   | Clustering solution                       | Virtualization                                    | Rebootless patching                 | Devops                            | Clustering solution              | UEK Kernel  |
|------------------------------------|--|--|---|---|---|-------------------------------------|-----------------------------------|----------------------------------|---|
| 24x7 telephone and online support  | Around-the-clock access to enhancements, updates, and errata | Oracle Enterprise Manager for Linux Management | Oracle Linux Manager for centralized management of Linux servers. | High availability with Oracle Clusterware | Oracle Linux Virtualization Manager (KVM + oVirt) | Zero-downtime patching with Ksplice | Docker, Kubernetes and Containers | Gluster Storage for Oracle Linux | UEK Kernel with Oracle Linux binaries which is engineered for Oracle Databases and Oracle applications to enhance database performance. |

Oracle Linux subscription must include:

- ✓ **UEK Kernel** which is engineered for Oracle Databases and Oracle products to enhance database and relative products performance.
- ✓ Rebootless patching /Zero downtime patching for both Kernelspace and user-space security vulnerabilities, should have roll back (rebootlessly) feature as well.
- ✓ Should include hypervisor (Oracle Linux Virtualization Manager- KVM+oVirt) in the linux subscription; at no additional cost
- ✓ Should include Ansible (Oracle Linux Automation Manager) product support in the linux subscription; at no additional cost
- ✓ Should include a centralize management solution (Oracle Linux Manager, Oracle Enterprise Manager) for centralize patching in the linux subscription cost