CEO/Pilot/Online/2013
Ministry of Civil Aviation
Office of the Director General of Civil Aviation
Opp. Safdarjung Airport, Aurobindo Marg, New Delhi-110003

7th March 2013

Subject: **Tender for providing required infrastructure, hardware, network and other facilities for conduct of Online / Compute Based examination for issue of Pilot License**

The Central Examination Organisation, Office of the Director General of Civil Aviation, Ministry of Civil Aviation, invites technical & commercial bids for providing required Infrastructure, hard ware, network and other facilities for conducting online / computer based examination for granting Pilot License. Interested Organizations involved in or capable of undertaking this issue may send their bids in a sealed envelope.

2.   Objective, scope of work, timeline, information to be furnished by the organization, evaluation criteria for selection and other relevant details have been laid down in the following pages of this document.

3.   Bids shall be addressed to: Shri Surinder Kumar, Director Finance and Administration, Office of the Director General of Civil Aviation, Technical Centre, Opposite Safdarjung Airport, New Delhi-110003. The last date for receipt is 1st April 2013 **by 3 PM.** Bids received after this date and time will not be considered. The bids received in time will be evaluated on the criteria fixed in the Tender Bid Document. Financial bid should be sent along with the technical bid but in a separate sealed envelope. No commercial information should be included in the technical bid. Financial bid of only those bidders who have qualified the technical bid will be opened. The sealed envelope should be marked as "Tender for conducting Online / computer based Exam for Issue of Pilot License" and should include two separate sealed envelopes one each for technical bid and commercial bid. The same should be clearly indicated on each envelope.

This tender is also uploaded in DGCA website http://dgca.nic.in.

(Surinder Kumar)
Director (Finance and Administration)
Directorate General of Civil Aviation

Notice Inviting Tender for

Appointment of an Agency for providing required Infrastructure, hard ware, network and other facilities for conducting online / computer based examination for issue of Pilot License.

1.   Introduction:

1.0 Central Examination Organisation, Office of the Director General of Civil Aviation (DGCA) conducts Online / Computer Based examinations for issue of licenses to Pilots mainly in the cities of Delhi, Mumbai, Kolkata, Chennai, Bangalore and Hyderabad etc.   Quotations are invited for appointment of an agency for providing required Infrastructure, hard ware, network and other facilities for conducting Online / computer based examination for issue of Pilot Licences.

1.1 The tenderer should submit their bids in three envelopes.

Envelope No. 1 - Shall contain signed copies of tender, Documents, duly filled Form - 1 required for technical evaluation as detailed in Annexure I and Earnest Money Deposit (EMD) of Rs**. 50000/-** (Rupees fifty thousand only) in the form of a Demand Draft /Pay Order in favor of P.A.O, DGCA, MCA, New Delhi payable at New Delhi. **The tender will not be considered if EMD is not submitted.** The envelope should be super scribed **"Technical Bid"**.

Envelope No. 2 - Shall contain Price bid as per Form -2 and shall be super scribed **"Financial Bid"** on the envelope. Price bids of only pre-qualified parties will be opened.

Envelope No. 3 - Shall contain both Envelope No. 1 and Envelope No. 2.

All Envelopes should be properly sealed by Bidders and should be clearly super scribed with Envelope number and **" Tender for providing required Infrastructure, hard ware, network and other facilities for conducting Online/ computer based Exam for Issue of Pilot License"**

1.2 Late bids i.e., bids received after the specified date and time for receipt of bids shall not be considered.

1.3 The EMD should remain valid for a period of ninety days beyond the final bid validity period. EMD of unsuccessful bidders would be returned to them after the finalisation of the tender.

1.4 The successful bidder will be required to furnish **Performance Security of 10% of the contract value** in the form of Fixed Deposit Receipt/ Bank Guarantee from any Commercial Bank, Demand Draft/ Pay Order in favour of P.A.O, DGCA, MCA, New Delhi payable at New Delhi within two days of receipt of the order. The Performance Security would be retained by DGCA till satisfactory completion of the work assigned and shall remain valid till ninety days of the completion of all contractual obligations.

1.5 The EMD would be returned to the successful bidder on receipt of Performance Security. No interest on Performance Security and EMD would be payable by DGCA under any circumstances.

1.6 Considering the confidentiality and sensitivity of the work involved, the bidders have to enclose a certificate along with the technical bid to the effect that it would not divulge any details pertaining to the examination to anybody without prior permission of DGCA and that it would take necessary preventive measures to ensure that nobody would come to know that the exam is being conducted by them. The agency will also have to certify that none of the relations of the personnel to be deployed for this work would appear for the exam to be conducted in the particular session.

2. **Scope of work**

2.1 The National Informatics Center (NIC) has developed a software that includes all the pre-examination formalities like online application, allotting roll numbers, Exam Scheduling etc. in its first phase. The second phase covers development and administration of test modules and the third phase, processing the exam results. DGCA intends to use the software developed and managed by NIC. The application developed by NIC can be implemented in any of the following two modes. Bids may include separate quotations for both the modes.

2.1.1 A localized server based application where in each city/site multiple client system in LAN are contacting the web server on the local host and carrying the transactions and data being managed on the local data base server system. The data shall be updated to the central server at defined schedules via the communication leased lines provided at the site. (See the diagram in Annexure – II).

2.1.2 A secure web application where hundreds of clients from several sites/cities accessing the Central web server directly (See the diagram in Annexure – III).

This Software works on Windows with IE 7 and above. DGCA in coordination with NIC will provide the necessary training to the selected agency's personnel.

2.2 DGCA would like the agency to provide the infrastructure required for conducting examination like the space, webcam in all the centres, computers, servers, UPS, generators, LAN/WAN of required speed, routers, Network Mgt S/W, Firewalls and proxy servers etc.

2.3 The examination will be conducted in cities for five days and two batches per day. There are in all twelve papers and duration of each paper varies from 90 minutes to 3 hours. The examination is proposed to be held during the third week of January, April, July and October of every year.

2.4 DGCA reserves the right to alter/ change the number of candidates appearing for the test in each batch at each centre by 30% of the number.

2.5 Agency shall provide the computers and the necessary infrastructure to conduct the examination at all the centres. Agency shall also provide 1 invigilator for every 20 candidates taking the exam.

2.6 Agency will provide details of the centre (Venue Address, No of m/c, List of Technical Support Personnel) well in advance to DGCA & NIC.

2.7 Agency shall ensure foolproof data security, data transfer, physical security and complete examination sanctity inside venues.

2.8 Agency shall provide sufficiently decent and quiet space to conduct the test.

2.9 Agency shall provide sufficient environment and infrastructure so that the CEO shall conduct the exam in batches as detailed in para 2.3.

2.10 The Agency shall ensure that complete and comprehensive mock drill is carried out two days before the exam in the presence of representatives of NIC and DGCA in all the centres.

2.11 The LAN set up shall be virus free and fire-walled. The terminals and the servers including the backups shall also be virus free.

2.12 Hardware, Network and other requirements are as specified below:

2.12.1 Servers : (servers required at each site covering 2.1.1 for localized server based application)

Server System Configuration:

S.No.	Site Classification	Server Configuration	Quantity
	Class A Site (Site which accommodates more than 200 candidates)	Rack Server- 4P (Server having four nos. AMD Opteron 6168 (12 Core, 1.9GHz, 12MB Cache) / Four nos. of Intel E7-4820 (8Core, 2GHz, 18MB Cache) or higher processors, AMD SR5690/Intel 7500 Chipset, 128 GB DDR-3 ECC memory expandable to 512 GB memory,	3 Nos

		integrated graphics controller, SAS Controller with Raid 0,1 & 5 support, Quad ports server gigabit ethernet on two separate controllers, 4 x 300GB HS SAS HDDs (10K or higher), Integrated DVD ROM Drive, Dual ported HBA 8 Gbps with two nos. of fibre cables (5M each), TCO-05 certified 18.5 or higher TFT monitor, OEM keyboard & OEM optical mouseCertification for both Windows & Linux OS, Remote management over LAN & WAN including features like virtual media & KVM over IP, clustering and hardware virtualization support, feature to disconnect failed node from shared storage in cluster, Server Chassis (Max. 4U) with redundant HS power supply to sustain above configuration with five HS drive bays for HDDs, five years on-site comprehensive warranty support	
	Class B Site (Site which accommodates less than 200 and more than 100 candidates):	Rack Server-2P (Server having two nos. Intel Xeon X5650 (6 Core, 2.66GHz, 12 MB Cache, 6.4GT/s QPI) or higher, 48 GB DDRIII ECC Memory expandable upto 96 GB, Integrated Graphic controller, SAS Controller supporting RAID 0 & 1, two nos. dual port gigabit server ethernet on separate controllers, 2x300GB SAS Hot swap HDD (10K rpm or higher), DVD ROM drive, remote management features over LAN & WAN including out of band, Virtual media & KVM over IP, Chassis (max. 2U) with Redundant Hot Swap Power Supply to sustain above configuration and 6 Hot Swap internal Drive bays for HDDs, TCO-05 certified 18.5 or higher TFT monitor, OEM keyboard & OEM optical mouseCertification for Windows & Linux, clustering support and necessary feature to disconnect failed node from shared storage in cluster and with five years on-site comprehensive warranty support.	3 Nos
	Class C Site (Site which	Pedestal Server-One Processor (Server having Intel Xeon E3-1220 (3.1GHz,	2 Nos

	accommodates less than 100 candidates):	8MB Smart Cache) or higher, 16 GB DDR-III 1066 MHz or higher SDRAM Memory with ECC, Integrated Graphics controller, SATA Controller supporting RAID 0 & 1, Integrated Server Ethernet dual port Gigabit controller with full duplex, 2x500GB SATA-II HDDs (7200 rpm or higher), Internal DVD ROM drive, TCO-05 certified 18.5 or higher TFT monitor, OEM keyboard & OEM optical mouse, remote management features over LAN & WAN, with Server Chassis having Power Supply to sustain above configuration with four internal hard disk drive bays, Certification for Windows & Linux and with five years on-site Comprehensive warranty Support.	

2.12.2 Network based Laser A4 size Printer (Minimum of 16 PPM) connected in LAN with the clients. Invigilator-wise candidate information, list of candidates by centre, performance report of the candidates and any other cross tabulated Reports need to be printed.

2.12.3 Client System Configuration:

Desktop having Intel Pentium G640(2.80 Ghz, dual core, 3MB Cache) or higher processor ;Intel H61 Chipset or equivalent chipset; 2GB DDR-III 1333MHz or higher expandable upto 4 GB; Integrated sound and graphics controller, Gigabit Ethernet controller with IPv6 Compliant; 320GB or higher SATA II HDD 7200 rpm; DVD ROM drive; 104 Keys OEM Keyboard with rupee sign engraved and OEM Optical Scroll Mouse with Mouse pad; SFF chassis with volume less than 13.5 litres and with suitable power supply; TCO 05 Certified 17" or higher TFT LCD Monitor with 5 ms or better response time; Antivirus software(latest version) with one year validity; preloaded with OEM Pack Windows 7 Professional, all necessary Plug-ns/utilities and driver software, bundled in CD/DVD Media

2.12.4 Sufficient UPS system with serviceable batteries.

2.12.5 Services of the Truly Qualified System integrator and Network manager (one each) at each site (Their roles and responsibilities have been defined

in Annexure IV);

2.12.6 Two internet Connections from two different ISPs with 10 Mbps each. (in case of lease line connectivity the bandwidth should be at-least 4 Mbps each). Public IP Addresses from these ISPs / lease lines received at the centres must be communicated to DGCA by the bidder well in advance to enable additional security features. The bidder must ensure that in case one of the ISP / lease line fails, they should be able to switchover to other ISP / lease line in minimum time. Kindly make sure that the ISPs / lease line selected by you for this purpose has good peering arrangement and also minimum latency to reach NICNET. The bidder should make sure that the complete bandwidth at the test centre is available to the computer based exam. The bidder should ensure powerful proxy / Nat engine to ensure minimum latency due to this device. In case the centre hosts more than 150-200 candidates simultaneously then they must have two different ISPs with at least 20mbps each in order to avoid congestion and to achieve good response time from the computer based exam.

2.12.7 Bidder must maintain a good quality LAN with security policies implemented to keep virus/worm free network

2.12.8 Sharing the site for network integration with NIC for a Week time for security, proper hand shaking and actual s/w testing before the exam conducted live at each site. The entire venue may not be required for the mock test. For Mock test more number of terminals will be required at each venue @10% of the capacity of the venue or 2 whichever is higher."

2.12.9 Disabling of CD/DVD drive, USB ports of machines and disabling of right click of mouse, print screen/scroll function of machines used for computer based examination.

2.12.10 Availabilty of sufficient numbers of back up machines to be used in case of machines malfunction during computer based examination.

2.12.11 Availability of adequate capacity back up power/ generators.

3 Time frame

3.1 Time limit for receipt of bids: **1st April 2013 at 3 PM.** (Bids received after this time limit shall not be entertained.)

3.2 Evaluation of Commercial Bids: **3rd April 2013 at 3 PM**

3.3 Tentative date for conduct of examination: Third week of January, April, July and October of every year (proposed).

Note: The frequency and date for examination can be changed at any point of time and DGCA has sole discretion on the matter.

4.   Procedure of Evaluation and Selection

4.1 DGCA reserves the sole right to accept or reject any or all bids which is incomplete or has been received after the appointed time and date or does not satisfy the prequalification criteria specified here under, without assigning any reasons there of. The technical bids shall not be considered for technical evaluation unless it is accompanied by the following:

    i.   Submission of Earnest Money Deposit of Rs 50,000/-.

    ii.   Submission of Work Orders as per Sl. No. 8 in Form 1 on Particulars i.e., copy of work order wherein the party/ company had administered online/ computer based test modules at all-India levels including setting up of the exam centers at various locations.

The evaluators of the technical bid shall not have access to the financial bid till technical evaluation is completed. The technical bids shall be opened by a Technical Evaluation Committee (TEC) constituted for the purpose. Technical evaluation shall be done keeping in view the following parameters:

S. No	Parameter
A	Past experience in work of similar nature. Should have executed minimum of Two (2) projects of similar nature each of value not less than Rs 50 lakh. Submission of original certificate from the customer indicating the value of work to this effect.
B	Average turnover of the Agency in the last three financial years (2009-10, 2010-11, 2011-12) in online/ computer based examination Rs 2 crore
C	Compliance with ISO 9001 Compliance with ISO 27001 (Former BS7799-2) - desirable.
D	**Infrastructure and other details** Office, hardware, LAN and software resources and Personnel including skills and competence in all the cities (namely Mumbai, Delhi, Chennai, Kolkata, Bangalore and Hyderabad)
E	Party should have PAN and Service Tax Number.
F	Party should be able to furnish a copy of the Income Tax Return for the last three years alongwith a copy of TDS Certificates of the previous works done.

Bids which are not otherwise rejected for the reasons indicated above will be evaluated on the basis of cost.

4.2 The **financial bid** should contain a quote fee for the assignment in Indian Rupees. The rates may be quoted **per candidate per hour** basis. Agency shall include in its price all taxes and other costs while quoting for the tender, in **"Form 2: Price Offer" to be kept in Envelop No. 2. Actual payment will be on the basis of number of candidates appearing for the exam.** Income Tax will be deducted at source from the bills as applicable. The Agency needs to furnish its PAN number.

4.3 Financial bids of only those bidders who qualify the technical criteria will be opened. Of these the one quoting the lowest cost will be awarded the contract provided all other requirements are fulfilled.

4.4 DGCA shall have right to accept or reject any or all tenders without assigning any reasons thereof.

5   Payment:

5.1 T h e payment will be made on satisfactory completion of the task assigned.

6   Conditions of the Tender:

6.1 The Agency will ensure complete and trouble free administration of Online / Computer Based Tests & invigilation and also security & integrity of data all the time. Leakage of secured information in any form will be considered as a breach of contract and a cognizable offence.

6.2 DGCA reserves its right to terminate the contract for any reason at its absolute discretion.

6.3 DGCA reserves the right to claim damages, of which DGCA shall be the sole judge, in respect of delays directly or indirectly due to the failure/default on the part of Agency in carrying out the responsibilities/duties efficiently and promptly.

6.4 The submission of a tender by an Agency implies that he has read these instructions and has made himself aware of the scope of work and the conditions of the contract and DGCA will not therefore, pay any extra charges on any account in case the Agency finds later on to have misjudged the conditions.

6.5 Any act on part of the Agency or his employees which will be prejudicial to the interest of the DGCA shall be considered as grave breach of the condition of the contract and shall render the contract liable for immediate termination. Loss due to any act on part of the Agency will be entirely its responsibility.

6.6 The Agency shall engage adequate number of qualified and experienced persons /its own employees to carry out the assignment under contract successfully.

6.7 The workers employed by the Agency to perform the contract, shall be the employees of the Agency and the Agency alone shall be liable to pay the wages and all other payments as may be due to the workers and DGCA shall in no way be liable for the same. The Agency shall also comply with all the provisions under the laws of the land pertaining to its workers and their employment for the purpose of performing the contract if so awarded against this tender and the Agency shall also indemnify DGCA for any claims whatsoever made by such workers against DGCA in that behalf.

6.8 DGCA shall not be responsible for death, disablement, injury, accident to Agency's employees, which may arise out of and in the course of their duties with the Agency. DGCA shall not be liable to pay any damages or compensation to the Agency's employees. The same are to be paid by the Agency as per the provisions of Law.

6.9 Force Majeure: The agency shall not be responsible for any failure to perform its assigned function due to causes beyond its reasonable control such as acts of God, fire, flood, war riots, embargoes, strikes, lockouts, act of any Government authority, accidents or disruption or operations arising from causes not attributable to any malafide acts of firm.

6.10 The jurisdiction of court for redressal of any dispute arising out of this contract shall be that of the Delhi Courts.

7   Statutory Obligations:

7.1 The Agency shall comply with all the Central, State and Municipal Laws & Rules and shall be solely responsible for the implementation of the provisions of the various Labour Laws and Rules there under and other statutory regulations, rules that are in force.

8   **Penalty Clause:**

8.1 If the Agency fails or delays to fulfill the obligations in the execution of work to the entire satisfaction of DGCA, DGCA reserves the right to terminate the contract and forfeit the performance security by way of en-cashing the demand draft/pay order/Fixed Deposit receipts or invoking the Bank Guarantee as the case may be, without prejudice to DGCA's further right to claim compensation from the Agency as a result of its failure or delay to fulfill the obligations.

8.2 If the examination is delayed or postponed due to failure and/or malfunction of any of the hardware, network and other facilities provided by the agency in accordance with the para 2.12 of this tender document, the agency shall be liable for payment of any compensation arising due to such failure at the sole discretion of DGCA and shall also be liable to provide the hardware, network and other facilities as specified under para 2.12 of this tender documents free of cost at the centres and for the number of candidates at the sole discretion of DGCA for conducting the re-examination.

Annexure I

Tenders are invited from experienced and reputed firms in the field of conducting online / computer based examination. The profile of the bidder ought to be a well-established firm with a team of experienced staff, all India network, skilled manpower etc. The bidder should have experience to undertake works of similar type and magnitude.

In Support of above, party should submit the following documents/ information:

1. Profile of the organization.

2. Details of Networking to undertake fully online / computer based test.

3. List of clients including PSUs, Educational institutions/ Central Government/ State Government etc. where similar jobs have been executed in past 3 years with copy of self-attested work orders.

4. List of test centres & Infrastructure facilities available on All India Basis.

5. Confirmation of testing system compliant with ISO 9001.

6. Copy of Annual Report for last 3 years.

7. Latest Income Tax return submission copy.

8. Copy of PAN & Service tax registration number.

9. Certificate by the authorized signatory that all the terms and conditions of the bid are acceptable to the bidder.

10. Sufficient proof to show the turn-over from the online/ computer based exam and overall turn-over to the satisfaction of the DGCA.

FORM 1: PARTICULARS

Please fill in the form in the format given below.

1. Name of the Firm

2. Address of the Firm

3. Contact Person (s) with mobile number (s)

4. Email address

5. Telephone numbers

6. Details of EMD (Mention DD number, bank, amount)

7. ISO 27001 Certification for Online / computer based Test Confidentiality: Yes/No

    If yes attach copy of the same

8. Whether you have administered the online / computer based test modules at all-India levels including setting up of the exam centres at various locations: Yes/|No

    If Yes, attach copy of Work Order

9. Whether enclosed Annual Reports of Past three years: Yes/No

10. Whether submitted Income Tax Returns for the past three years: Yes / No
11. Whether submitted a copy of TDS certificate of the previous works done : Yes/No
12. Whether submitted original certificate from the customer for the previous works completed clearly mentioning the value of work : Yes/No

13. Whether submitted PAN copy: Yes / No

14. Whether submitted Service Tax Registration Number: Yes / No

Note: a) In case you have a consolidated work order which clearly spells out all the activities mentioned above (Sl. No. 8), you may attach the same.

      b) Non-submission of EMD and Work orders (Sr No 8) will disqualify you and in that case, your price bid shall not be opened.

FORM 2: Price Offer

Per candidate per hour charges for administering the online/ computer based exam at the cities (such as Delhi, Mumbai, Kolkata, Chennai, Bangalore and Hyderabad etc.) including setting up of the examination centers:

Amount in INR per candidate per hour
(In case of Local Web based Server examination as per para 2.1.1)

_____ (Inclusive of all taxes)

Amount in INR per candidate per hour
(In case of Secure web application examination as per para 2.1.2)
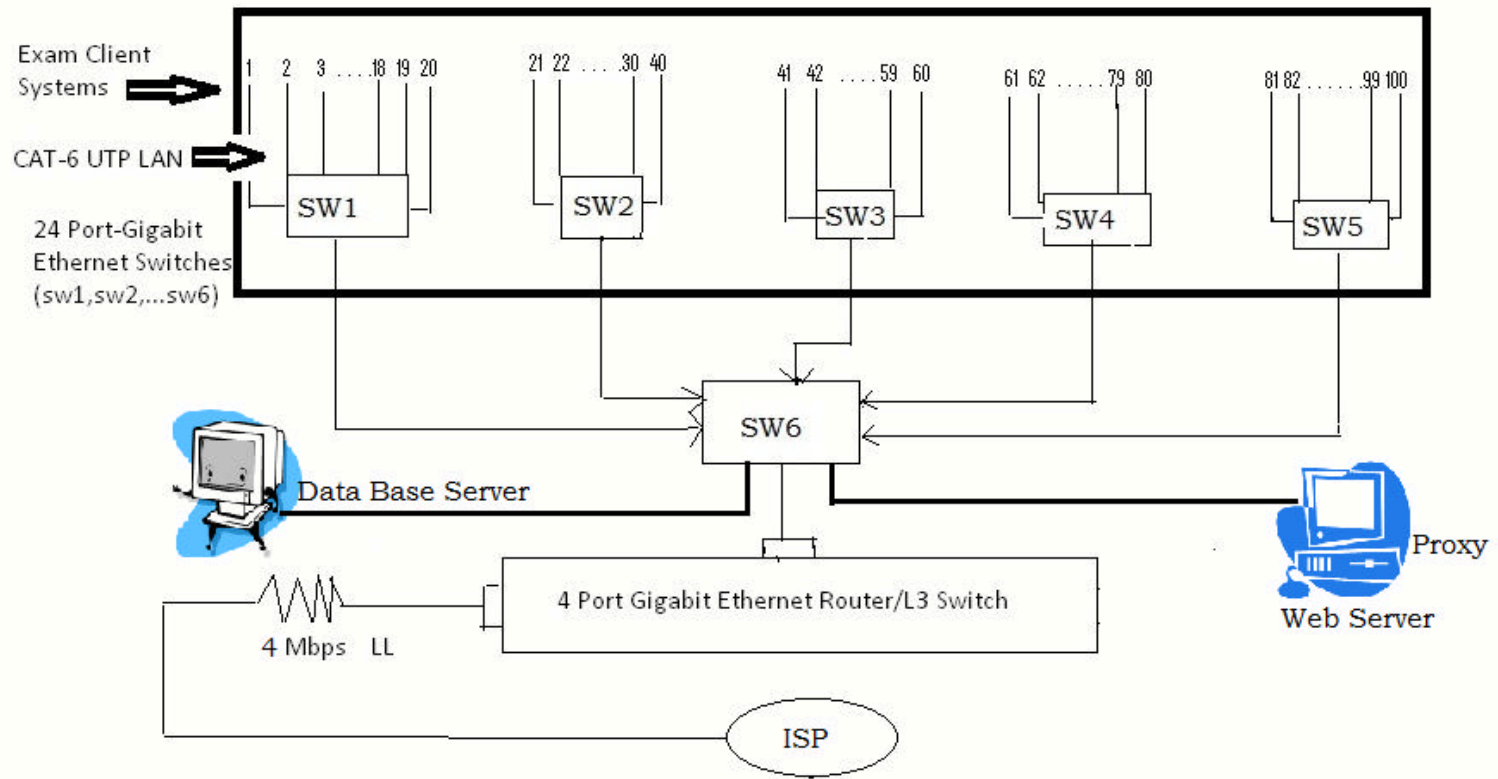
_____(Inclusive of all taxes)

Signature

Date

Company seal

General Network diagram depicting connectivity for conducting exams for pilots / AMEs using VIMANIC at any site in the country for a batch of 100 candidates

Exam Client Systems

CAT-6 UTP LAN

24 Port-Gigabit Ethernet Switches (sw1,sw2,...sw6)

1 2 3 ....18 19 20   21 22 ....30 40   41 42 ....59 60   61 62 .....79 80   81 82 .....99 100

SW1   SW2   SW3   SW4   SW5

SW6

Data Base Server

Proxy

Web Server

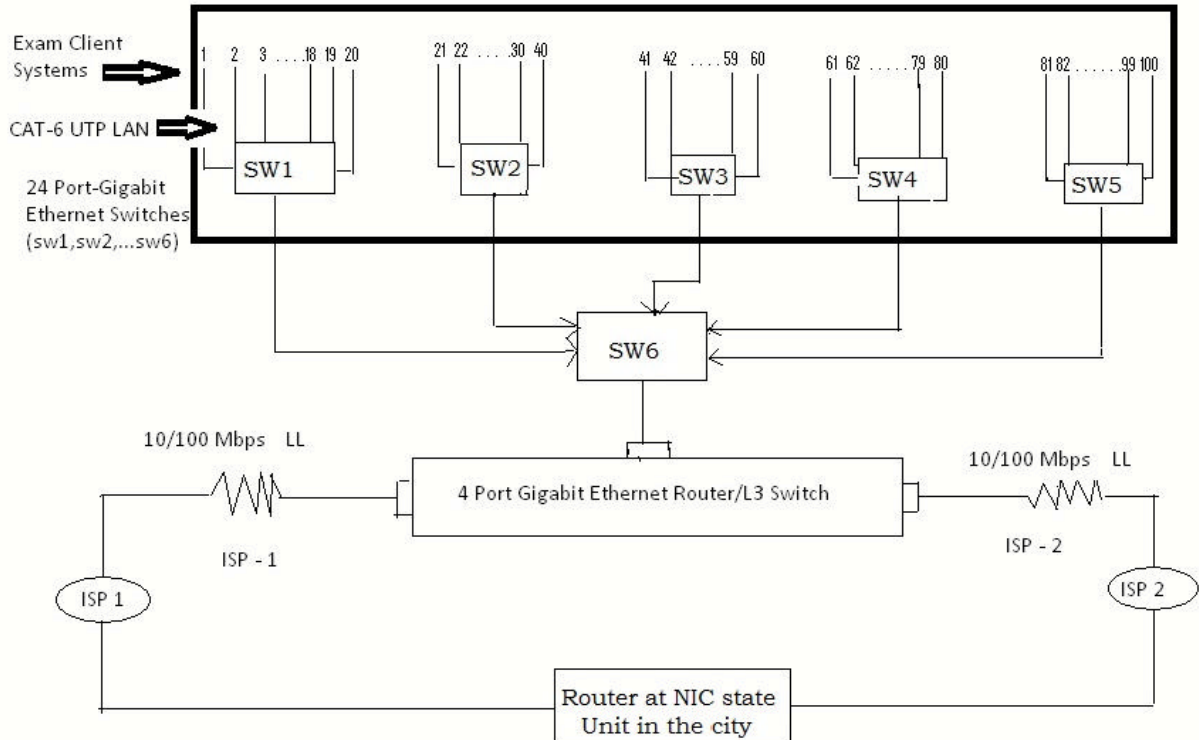4 Port Gigabit Ethernet Router/L3 Switch

4 Mbps LL

ISP

ANNEXURE - III

General Network diagram depicting connectivity for conducting exams for pilots /
AMEs using VIMANIC at any site in the country for each 100 candidates

Exam Client Systems

CAT-6 UTP LAN

24 Port-Gigabit
Ethernet Switches
(sw1,sw2,...sw6)

1 2 3 ....18 19 20   21 22 .... 30 40   41 42 ....59 60   61 62 .....79 80   81 82 .....99 100

SW1   SW2   SW3   SW4   SW5

SW6

10/100 Mbps   LL   10/100 Mbps   LL

4 Port Gigabit Ethernet Router/L3 Switch

ISP - 1   ISP - 2

ISP 1   ISP 2

Router at NIC state
Unit in the city

Annexure - IV

Roles and Responsibilities of System Integrator and Network Administrator

System Integrator and Network Administrator are to maintain and operate the computer system and network respectively.

A System Integrator's responsibilities include analyzing system logs and identifying potential issues with computer systems, performing checks of systems, performing backups, answering technical queries, ensure security of the system, troubleshoot any reported problem and System performance tuning.

A Network Administrator is to take care of network integration, security and sanitization of examination centres from possible intrusions, detection and prevention and ensure that the network infrastructure is up and running. Once the network is set up, it is the responsibility of network administrator to get it cyber security tested and make it vulnerable free.