

**Punjab Engineering College
(Deemed to be University),
Chandigarh
Sector 12, Chandigarh 160012**



**E-tender document
For
Proctoring of Online Examinations**

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SECTION I:
INVITATION FOR E - TENDER
Proctoring of Online Examinations

1. The Punjab Engineering College (Deemed to be University), Chandigarh invites e-bids from eligible bidders for **Proctoring of Online Examinations**
2. Interested eligible Bidders may obtain further information from **Dean Academic Affairs, Punjab Engineering College (Deemed to be University), Sector 12, Chandigarh 160012, India.**
3. The bidding document can be downloaded from institute website <http://www.pec.ac.in>.
4. All bids must be accompanied by an EMD as specified in the bid document and must be delivered to the office address mentioned below by the date and time indicated below.
5. Bids will be opened in the presence of Bidders' representatives who choose to attend on the specified date and time.

TABLE – 1

S. No.	Name of the Task	EMD	Performance Security Deposit
I	Proctoring of Online Examinations	Rs. 75,000/-	@ 10% of the value of the contract

TABLE - 2

I	Date of publication	28/09/2020
II	Downloading of e-tender document	Start date: 28/09/2020 End date: 12/10/2020 till 3:00 PM
III	Date of submission of e-tender	Start date: 28/09/2020 End date: 12/10/2020 till 3 PM
IV	Physical submission of EMD	Start date: 28/09/2020 End date: 12/10/2020 till 3:00 PM
V	Opening of Technical Bid (online) and meeting for scrutiny of technical bid and declaring eligible bidders.	Date: 12/10/2020 at 03:30 PM
VI	Opening of Financial Bid of only eligible technically qualified bidder as determined by the Committee.	To be informed after checking eligibility of Bidders
VII	Place of opening of bids	Office of Dean Academic Affairs, Punjab Engineering College (Deemed to be University), Sector 12, Chandigarh 160012
VIII	Address for communication	Office of Dean Academic Affairs, Punjab Engineering College (Deemed to be University), Sector 12, Chandigarh 160012
IX	Online Pre-bid meeting	30-Sep-2020 11:00 hrs. Interested participants are requested to send an email to webmaster@pec.edu.in latest by 29th September 2020. The link for the online meeting will be sent through email.

Director,
Punjab Engineering College
(Deemed to be University)
Sector-12, Chandigarh

CHECKLIST FOR TENDER DOCUMENT

Sr. No.	Pre-Qualifying Criteria	Supporting Compliance Document	Tick (Yes/No)
1.	Name of the firm/organization & address Contact person name and telephone/ Mob. No./Fax. No./	Necessary Document on letter pad of the company/firm.	Yes/No
2.	Earnest money deposit as mentioned in Point 14 of SECTION II of this tender document.	FDR/ Demand Draft/ Banker Cheque/ Bank Guarantee from any commercial Bank in favor of Director, Punjab Engineering College (Deemed to be University) Chandigarh which shall be valid for 45 days beyond final bid validity period.	Yes/No
3.	Bidder should have a turnover of at least Rs. 10 Crore in each of last three Financial Years respectively. Financial Years can be 2016-17, 2017-18 & 2018-19 OR 2017-18, 2018-19 & 2019-20	Audited copies of Financial Statement shall be submitted as proof.	Yes/No
4.	The bidder should have an experience of successful conduct of Remote Proctored Online Exam of National Level such as All India Medical/ Engineering Examinations for IIT/NIT/IIM or any other Government Funded Technical Institute. The bidder must have successfully executed 3 similar projects in the last 3 years (conduct of Remote Proctored Online Exam on an all India basis, out of which at least one project should have been conducted for 1,000 candidates in a single session. The documentary evidence in the form of work order/contract and performance report must be enclosed on the client's letterhead. (Bidder's past achievement in this regard shall be considered for technical evaluation). Any experience as a consortium partner will not be considered.	Copy of Work Order / Contract along with Completion Certificate.	Yes/No

5.	Names & Addresses of Clients* (at least three) along with their contact details (telephone number/E-mail) of the contact persons of the clients of recent past if available. (*IIT/NIT/IIM or any other Government Funded Technical Institute)	1. 2. 3.	Yes/No
6.	The applicant shall be a firm/ company registered under the Indian Companies Act, 2013 and who have their registered offices in India .	Copy of Certificate Incorporation or relevant documents, Company Profile and Self-attested copies of PAN/TAN Card / GST No. and Registration Certificate of the company issued by the competent authority.	Yes/No
7.	Certificate of acceptance of terms & condition mentioned in Section II and Section VII of Tender Document.	Certificate signed by the Authorized Signatory	Yes/No
8.	Affidavit of not being Black Listed (Affidavit as per Annexure 2.2 of SECTION II)	Affidavit	Yes/No
9.	Covering letter (Annexure 2.1 of SECTION II)	Covering Letter	Yes/No
10.	They must have a primary data center with DR (Disaster Recovery) site infrastructure for data security. Both the data centers should be located in India in different seismic zones. The data center must be Tier III compliant and ISO certified. Data Center should be certified as per the Government of India Guidelines. The infrastructure of the bidder must be CERT-In certified as per Govt. of India guidelines.	Certificate signed by the Authorized Signatory	Yes/No
11.	The bidding agency should own the copyright of the source code being used for software to enable Remote Proctored Online Exam. The agency should be able to make changes as and when required in any of the components of the software. Attach proof in this regard	Proof to be Submitted	Yes/No
12.	The agency should be certified for compliance with established Information Security Standards such as ISO27001. Duly signed copy of ISO27001 certificate should be submitted along with the technical bid.	Duly signed copy of ISO27001 certificate	Yes/No

13.	The bidding agency should have authorized and globally accepted software certification, CMMi Level 3 or 5. Proof of this should also be submitted.	Proof to be Submitted	Yes/No
14.	Technical Compliance as per Section V	Certificate signed by the Authorized Signatory	Yes/No
15.	All Formats as per Section VIII	Certificate signed by the Authorized Signatory	Yes/No

Place: _____ Signature of Tenderer _____

Dated: _____ Full Name of the Tenderer _____

Address: _____

SECTION II: TERMS AND CONDITIONS OF CONTRACT

1. Tenderers are advised to study all technical and commercial aspects, instructions, forms, terms and specifications carefully in the tender document. Failure to furnish all information required in the tender document or submission of a bid not substantially responsive to the tender document in every respect will be at the tenderers risk and may result in the rejection of the bid.
2. The tenderers should give their quote in Indian currency only, keeping in mind that our institute (i.e. Punjab Engineering College (Deemed to be University)) is exempted from the payment of custom and excise duty. Only custom & excise duty exemption certificate will be issued.
3. The Bidders shall have to submit their Bids online in Electronic Format with Digital Signatures.
For participation in the e-tendering process, the Bidders need to register themselves on <http://etenders.chd.nic.in/nicgep>. On registration, they will be provided with a user ID and a system generated password enabling them to submit their Bids online using Digital System Certificates (DSC).
4. Tenders without digital signatures will not be accepted by the Electronic Tendering System. No Tender will be accepted in physical form and in case, it has been submitted in the physical form only, it shall be rejected out rightly.
5. Bids will be opened online as per time schedule mentioned in e-tender notice.
6. Before submission of online bids, bidders must ensure that self-attested scanned copies of all the necessary documents as mentioned in SECTION “**Technical Bid**” and SECTION “**Financial Bid**” of this tender document have been uploaded with the bid, failing which their bids may be out-rightly rejected and will not be considered.
7. It is mandatory for all the bidders to upload all the documents mentioned under tender document.
8. Bidder is required to upload scanned copy of EMD as specified in the tender documents and send original along with other hard copies of desired documents to be sent in technical bid envelope.
9. The details of EMD and tender cost specified in the tender documents should be the same as submitted online (scanned copies) otherwise tender will be rejected.
10. The conditional bids shall not be considered and may be rejected out rightly in very first instance.
11. Financial Bid will be opened of only those bidders who qualify in the technical bid criteria through e-tendering process.

12. An affidavit as per specimen enclosed as Annexure – 2.2 of SECTION II should accompany the tender. The tenderer who has been black-listed or his/her tenders have ever been cancelled or any legal proceedings have ever been initiated/pending or any penalty has ever been levied on account of delay or non-completion of supply order by any State/UT/Central Government, his/her tender will be out rightly rejected.
13. Downloading and submission of Tender will be done by E-tendering process through the website of Chandigarh Administration <http://etenders.chd.nic.in/nicgep>
14. EARNEST MONEY DEPOSIT (EMD): The Tender should be accompanied with Earnest Money as mentioned in the **Table-1 of SECTION I** to be paid in the shape of FDR/ Demand Draft/ Banker Cheque/ Bank Guarantee from any commercial Bank in favor of Director, Punjab Engineering College (Deemed to be University) Chandigarh which shall be valid for 45 days beyond final bid validity period. No firm/tenderer will be exempted from submission of EMD. The EMD deposited by the tenderer in respect of another similar tender will not be considered against this tender. Apart from submission of EMD in physical form, scanned copy of EMD duly attested and countersigned by the firms shall also be uploaded. The EMD of unsuccessful tenders will be refunded immediately after finalization/allotment of tender. No interest will be payable on the EMD. The EMD will be forfeited, if the tenderer withdraws his/her bid after submission of the Tender. Expression of Interest without the EMD shall be rejected.
15. TECHNICAL BID: The tenderer should submit scanned copy of documentary proof of his/her eligibility as mentioned in SECTION III “Technical Bid” of this tender document.
16. Financial Bid will be opened of only those bidders who qualify in the technical bid criteria through e-tendering process.
17. Performance Security Deposit: The successful tenderer will have to deposit performance security @10% of the total value of tender awarded (Table -1 of SECTION I) within 15 days of issuance of letter of intent by the competent authority to be paid in the shape of Fixed Deposit Receipt or Bank Guaranty, from any commercial bank in favour of Director, Punjab Engineering College (Deemed to be University) Chandigarh which shall remain valid for a period of 60 days beyond the completion of warranty/contract period and the security deposited in connection with any other similar tender will not be considered against this tender. Thereafter, the work order will be issued. If successful tenderer fails to submit the requisite performance security deposit within prescribed 15 days, earnest money deposit (EMD) deposited by the tenderer will be forfeited.
18. Tender received through e-tendering shall be opened online by the committee duly constituted by the authorities of Punjab Engineering College (Deemed to be University),

as per schedule given in Tender Notice in the office of the Head, Computer Centre, Punjab Engineering College (Deemed to be University) Chandigarh. In the event of date of opening of Tender being declared a holiday, the due date of opening of the Tender will be the next working day at the same hours.

19. The Director, Punjab Engineering College (Deemed to be University) Chandigarh reserves the right to accept or reject any or all tenders without assigning any reason.
20. **Non-Disclosure/ Confidentiality Agreement:** The selected vendor would have to enter Non- Disclosure Agreement with the Institute for the Examination Data and other data and processes of the Institute which are part of Examination process.
21. The bidder shall be single point of contract with PEC and shall be solely responsible for the execution and delivery of work without subletting or engaging in sub-contracting of the core examination related activity.
22. The bidder must have primary data centre with DR site infrastructure for data Security. Both the Data Centers should be located in India in different seismic zones. The data centre must be Tier III and ISO certified. Data Centre should be certified as per the Government of India's Guidelines. The infrastructure of the bidder should be Cert –in certified as per Govt. of India guidelines.
23. The contract shall be on “End to End outsource basis” and the bidder should have all relevant facilities and logistics available to execute the work.
24. Bidder should be OEM and own the complete source code of the Software/Web Application that is used for the Proctoring of Online Examinations. They must have the copyright of the source code and all its components.
25. Bidder should have all the necessary components and dependency of source code of Software/Web Application in place so that any change required in any of the components of the software, technical skill should be available to make necessary changes. The major/minor changes in software required by PEC must be met immediately.
26. Software/Web Application code should have multiple backup systems in place so that anytime source code can be recovered in case of any disaster.
27. Proper security provision for source codes shall be maintained.

ANNEXURE – 2.1

From

Subject: Submission of Tender for Proctoring of Online Examinations of Punjab Engineering College (Deemed to be University), Chandigarh.

Dear Sir,

With reference to your above-mentioned notice inviting tenders, I/We hereby offer to provide Proctoring solution for Online Examinations of Punjab Engineering College (Deemed to be University), Chandigarh. I/We shall be responsible for all complaints as regards to the quality of product and in case of any dispute; the decision of the Director, Punjab Engineering College (Deemed to be University), Chandigarh shall be final and binding on me/us.

A FDR No. _____ Dated _____ drawn on _____ intended for the prescribed amount of Rs. _____ (Rupees)

Only) in favor of Director, Punjab Engineering College (Deemed to be University), Chandigarh, payable at Chandigarh is enclosed as earnest money as desired.

I/WE shall have no claim to the refund of earnest money / performance security prescribed against this tender in the event of my/our non-compliance of the contract, provided such contract is implemented within the period of validity of my/our tender.

I/We further understand that my/our earnest money shall stand forfeited in case of unsatisfactory supply of equipment's/service/violation of any term, or if I/We withdraw my/our tender at any stage during the period of validity. My/Our tender shall remain valid for a period of 120 days from the last date prescribed for submission of the tender against the above-mentioned notice. My/Our tender along with terms and conditions with relevant columns and annexure duly filled in under my/our attestation and with each page of the tender paper including the enclosed terms and conditions signed by me/us (in the capacity of sole owner/general or special attorney attached) is submitted for your favorable consideration.

I/We have read the terms and conditions carefully and have signed the same in token of our absolute and unqualified acceptance.

Thanking you,

Place

Yours faithfully,

Signatures
Date with stamp & Full
Address

ANNEXURE - 2.2

(To be furnished on non-judicial stamp paper duly attested by the 1st Class Magistrate/Notary)

AFFIDAVIT

I/We/ M/s _____ are registered
Company/Ltd Company etc. as per Registration Certificate No.
_____ issued by _____ having
registered office at _____

_____ and manufacturing/supply
base at _____ do hereby declare and
solemnly affirm that I/We have not been Black-listed, nor mine/our Tenders have ever
been cancelled by any State/UT/Central Government or any partner or shareholder
either directly or indirectly connected with or has any subsisting interest in the business
of my/our firm nor any legal proceedings have ever been initiated/pending or any
penalty has ever been levied due to delay of non-completion of work/service/supply
order by any State/UT/Central Government or by any authority.

Place: _____
DEPONENT

Dated : _____

Verification

I/We do hereby solemnly declare and affirm that the above declarations are true and
correct to the best of my knowledge and beliefs. No part of it is false and nothing has
been concealed therein.

Place : _____
DEPONENT

Dated : _____

SECTION III
“Technical Bid”
SCHEDULE OF REQUIREMENTS

TABLE 3: SCHEDULE OF REQUIREMENT

Sr. No.	Item	Delivery Schedule	Bid Security In Rupees
1	Proctoring of Online Examinations	15 Days	75000/-

Note: Price should include any other item required (not included in requirement mentioned above) to complete the project, transportation, installation, testing, commissioning, lifting and shifting.

PRE-QUALIFYING CRITERIA

Offer will be accepted/uploaded in two covers under Details containing:
First cover titled as “Technical Bid” should contain the Self-attested scanned copies of following with consecutive Sr. No.:

Sr. No.	Pre-Qualifying Criteria	Supporting Compliance Document
1.	Name of the firm/organization & address Contact person name and telephone/ Mob. No./Fax. No./	Necessary Document on letter pad of the company/firm.
2.	Earnest money deposit as mentioned in Point 14 of SECTION II of this tender document.	FDR/ Demand Draft/ Banker Cheque/ Bank Guarantee from any commercial Bank in favor of Director, Punjab Engineering College (Deemed to be University) Chandigarh which shall be valid for 45 days beyond final bid validity period.
3.	Bidder should have a turnover of at least Rs. 10 Crore in each of last three Financial Years respectively. Financial Years can be 2016-17, 2017-18 & 2018-19 OR 2017-18, 2018-19 & 2019-20	Audited copies of Financial Statement shall be submitted as proof.
4.	The bidder should have an experience of successful conduct of Remote Proctored Online Exam of National Level such as All India Medical/ Engineering Examinations for	Copy of Work Order / Contract along with Completion Certificate.

	IIT/NIT/IIM or any other Government Funded Technical Institute. The bidder must have successfully executed 3 similar projects in the last 3 years (conduct of Remote Proctored Online Exam on an all India basis, out of which at least one project should have been conducted for 1,000 candidates in a single session. The documentary evidence in the form of work order/contract and performance report must be enclosed on the client's letterhead. (Bidder's past achievement in this regard shall be considered for technical evaluation). Any experience as a consortium partner will not be considered.	
5.	Names & Addresses of Clients* (at least three) along with their contact details (telephone number/E-mail) of the contact persons of the clients of recent past if available. (*IIT/NIT/IIM or any other Government Funded Technical Institute)	1. 2. 3.
6.	The applicant shall be a firm/ company registered under the Indian Companies Act, 2013 and who have their registered offices in India .	Copy of Certificate Incorporation or relevant documents, Company Profile and Self-attested copies of PAN/TAN Card / GST No. and Registration Certificate of the company issued by the competent authority.
7.	Certificate of acceptance of terms & condition mentioned in Section II and Section VII of Tender Document.	Certificate signed by the Authorized Signatory
8.	Affidavit of not being Black Listed (Affidavit as per Annexure 2.2 of SECTION II)	Affidavit
9.	Covering letter (Annexure 2.1 of SECTION II)	Covering Letter
10.	They must have a primary data center with DR (Disaster Recovery) site infrastructure for data security. Both the data centers should be located in India in different seismic zones. The data center must be Tier III compliant and ISO certified. Data Center should be certified as per the Government of India Guidelines. The infrastructure of the bidder must be CERT-In certified as per Govt. of India guidelines.	Certificate signed by the Authorized Signatory

11.	The bidding agency should own the copyright of the source code being used for software to enable Remote Proctored Online Exam. The agency should be able to make changes as and when required in any of the components of the software. Attach proof in this regard	Proof to be Submitted
12.	The agency should be certified for compliance with established Information Security Standards such as ISO27001. Duly signed copy of ISO27001 certificate should be submitted along with the technical bid.	Duly signed copy of ISO27001 certificate
13.	The bidding agency should have authorized and globally accepted software certification, CMMi Level 3 or 5. Proof of this should also be submitted.	Proof to be Submitted
14.	Technical Compliance as per Section V	Certificate signed by the Authorized Signatory
15.	All Formats as per Section VIII	Certificate signed by the Authorized Signatory

NOTE: All the above mentioned documents should be duly in order and are essential to qualify at Technical Bid Stage.

SECTION IV: SCOPE OF WORK

The Scope of Work is divided into the following four broad categories:

- General
- Implementation
- Pre- Examination
- Examination
- Post Examination

General:

Type of Examination	End-Term/Mid-Term
Approximate number of students to be examined	(2000 UG + 200 PG) X 3 Exams = 6600 (6500 Approx.)
Approximate number of subjects	(5 X 8 X 3) UG + (12 X 4) PG = 168 (160 Approx.)
Approximate number of students per subject	40
Time frame exams are planned in	September 2020 to January 2021
Approximate number of assessments (Online)	160X40=6400 Per Exam Assessments (Approx.) (6400X3=19200)*
Training	Training of Faculty & Staff Members
Application	Desktop App/Browser Extension
Technical Support	Required

* The institute reserves the right to change the number of assessments at any point of time.

The vendor is expected to provide following for conducting Online Examination:

1. The procedure to be followed for admitting the candidate into the exam, the processes to be followed during the duration of the exam and after the exam is completed, need to be described clearly.

2. The vendor must provide a dedicated Program Manager and Escalation who will interface and provide support right from the start of the project until all the exams are completed and results handed over.
3. There should be a tracking system with suitable mechanisms for raising tickets and closure of outstanding issues along with the escalation matrix provided.
4. Timelines for various activities related to the exam will be mutually agreed sufficiently in advance.
5. The vendor will ensure that there is no loss of response related data for any candidate or any other data related to the examination either from the client systems or the servers.
6. The vendor will ensure event based log (audit trail) for every student will be generated and saved on the servers.
7. Post-handover of the project, the vendor will not retain any data.
8. Responsiveness of the system - Response time of the server and software should be quick to enable student to take the exam without any technical glitches.
9. The vendor will ensure the secrecy of the examination material.
10. The selected bidder shall be responsible for guarding the Systems against virus, malware, spyware and spam infections using the latest Antivirus corporate/Enterprise edition suites which include anti-malware, anti-spyware and anti-spam solution for the entire system. The vendor shall have to maintain strict privacy and confidentiality of all the data it gets access to.
11. The selected vendor will provide the required training to the staff and faculty on the system.

Implementation

1. The agency should design a high-performance system and conduct performance exams to verify successful achievement of high concurrency, quick response time, and long-stress duration required of the system used to conduct the examination. Results of such performance exams should be made available to the client as and when required. Sometimes these exams may have to be conducted within a short notice and with strict deadlines.
2. The agency should design a highly secure system and conduct security tests to verify that there are no vulnerabilities that can make the system susceptible to attacks. Comprehensive testing of source code and the infrastructure must be carried out. Results of such security tests should be made available to the client, when requested.

3. The agency should be able to support PEC Remote Proctored Online Examinations (across India) on a 24x7 basis with a maximum response time of 3 hours.

Pre-Examination Phase:

Vendor will work with PEC and facilitate the following and ensure that the exam is smoothly conducted for the exam takers.

1. The vendor would provide the Question Paper Authoring software and train PEC office staff on Question Paper Authoring.
2. The authoring software must be modified to include new features as requested by the faculty instructors of the courses, as much as is possible.
3. The Question Paper Authoring software must allow for creating multiple versions of a question paper by jumbling the questions and the choices for a question.
4. The vendor would provide adequately trained Test Administrators (TAs) and Proctors who should be the staff of the vendor.
5. The proposal submitted by the vendor should indicate the manner of Exam delivery and the limits to which the system has been tested in terms of number of client systems connected simultaneously without loss of performance in the examination environment.
- 6. Students must be provided the following:**
 - 6.1 Access to the mock exam to be able to test their connectivity to the system and the software a few days ahead of the exam. The candidate should be able to test the software and get an idea of how the questions will be displayed during the actual exam.
 - 6.2 Clear and transparent guidelines agreeable by PEC and Vendor to be given to the students on the activities that are considered as malpractices for a remote proctored online exam.
 - 6.3 Vendor should communicate clear guidelines (on dos and don'ts) to the Test taker well in advance so that the test taker is ready for the remote proctored exam.
 - 6.4 There should be clear guidelines given to human proctors as to when to hold, re-start and terminate the exam
 - 6.5 The software must obtain concurrence of the candidate having read the instructions before start of examination.

Examination Phase:

1. **Remote Proctoring (AI & Human proctoring):** This activity involves the activation of Remote Proctoring facility for the test takers. This should be on a

Real Time basis but without compromising the credibility and security of the test.

2. The Remote Proctoring activity must have the following features:

- 2.1 Establish candidate authentication; Vendor to share the authentication process
- 2.2 Check candidate computer hardware, Web camera, microphone, software, surroundings, network, bandwidth, sanitization etc. as per the Remote Proctored Exam requirements
- 2.3 Disabling all Bluetooth devices, all ports, special purpose keys, print-screen, copy-paste features browsers etc. and all necessary precautions.
- 2.4 The Remote Proctoring facility should allow for human proctoring through Live Feed of the examination of each candidate
- 2.5 Familiarization of candidate to Remote Proctoring, Do's & Don'ts, Instructions, bio breaks etc.
- 2.6 Option to mandate candidate authorization by a remote authorizer before the candidate starts the test
- 2.7 Limit allocation of candidates to a proctor randomly and automatically.
- 2.8 Proctor should be able to validate the successful completion of the test before result processing and release of final test score to the candidate.
- 2.9 Provide quick access to PEC to view Paused/Disconnected candidates.
- 2.10 Ability to broadcast/announce messages across all the live test takers.
- 2.11 Search for any candidate attempting the test.

3. Invigilation during the exam:

- 3.1 The proctors will compare the facial recognition photo & the photo id card and authorize the students to the exam page. The photo, name, and programme to be verified by the proctor prior to allowing the student in the exam page
- 3.2 Monitor the exam taker continuously and provide support till the end of the exam
- 3.3 Remote proctors should also ensure proper conduct of examination and ensure that candidates use no unfair means during the exam, as per the details agreed upon by Vendor and PEC.

4. Details to be displayed on candidate console as part of Exam software during the exam:

- 4.1 Display of instructions to candidates up on login and before start of examination. The candidate must be able to retrieve instructions at any time during the examination as well.
 - 4.2 Start and closure of the examination at scheduled time (candidates must not be able to start their examination even if they login before the scheduled time).
 - 4.3 Display of remaining time available
 - 4.4 Display of candidate details on the screen (including a photograph if available) during the examination.
 - 4.5 Viewing the complete question paper or a section in the case of sectional papers.
 - 4.6 Switching between sections in the question paper (if applicable).
5. **Monitoring:** The exam server shall have the capability to start the examination for all candidates, monitor the status of each candidate (whether logged in, examination started, idle/active, disconnected, submitted, etc.), The server MUST maintain an audit trail of every operation on the server. All server-side audit trails are also the property of PEC and shall be handed over at the end of the examination.
6. **Master Control Facility:** The exam should be accessible for monitoring by PEC, ably supported by technical personnel who are well versed with the Online Examination Software. At the end of examination in each session, the candidate response data and audit trail data of each candidate to be shared with PEC. The vendor should provide the facility to monitor the pre-examination, during examination and post examination activities of all candidates taking exams simultaneously.

Post Examination Phase

1. Bulk download of the answer scripts (readable format like pdf which are printable on A4 size paper)
2. Software that handles post examination operations that includes a consolidated detailed information sheet of all candidates who appeared for the examination, detailed response sheet for every candidate, the audit logs of every candidate recorded during the exam, analytics and basic statistics on the responses obtained.
3. Remote proctored online Computer based exams (MCQ Type exam): The evaluation of the responses needs to be done within 1 day and results shared with PEC in the mutually agreed format;

4. For Remote proctored paper/pen exams, the scanned copies (readable format like pdf which are printable on A4 size paper) must be shared on the day of the exam.
5. Audit logs for each and every candidate that covers the computer activity done by him/her should be shared with the PEC office along with the results.
6. Individual candidate-wise, item-wise responses and audit trail will be captured and shared with PEC. The Vendor will maintain the data in a secure manner till instructed by PEC to delete the same.

SECTION V

TECHNICAL SPECIFICATIONS AND DETAILS

The Proctoring Solution for Online Examinations should support the following Technical Specifications:

Process:

Step 1: Authenticate Candidate:

- Email Verification
- Institute ID based Verification

Step 2: Regulate the Examination Environment

- Restrict Browser, Tabs & Applications
- Restrict Search Engines & Other Websites
- Restrict Screen Sharing and Virtual Machines
- Restrict Cut, Copy Paste
- Restrict External Ports & Printing
- Restrict Data Sharing

Step 3: Proctor Session

- Automatic (AI-Based) Proctoring
- Facial Detection
- Detection of Mobile Phone or any other suspected external device.
- Detection of Candidate Distraction
- Detection of Multiple People (Voice, Tone etc.)
- Record & Review Video Feed
- Live Online Proctoring (Human-Based) with Multiple Student View
- Multiple Violation Detection and Violation Detection Score
- Prevent Min/Max of windows and use of function keys
- Assign invigilators to particular set of students.
- Restrict Printing
- Detect Being out of camera view: face, chin to forehead, needs to be in the camera view at all times.
- Restrict Taking pictures or screenshots of the exam.
- Restrict Utilizing a secondary monitor

Features:

Create Exams for Different Question Types

- Multiple Choices
- Fill in the Blanks
- Subjective Questions with Descriptive Answers
- Image Based Questions
- Text, Attachment & URL Based Test
- Provision to conduct Pen & Paper Test and Upload.
- Graphs, Diagrams and Scientific Calculator
- Directly Import Test from Word, Excel, CSV

- Time Stamping & Attendance
- Provision to Create Question Banks and Category Based Questions
- Randomization of Questions

Scheduling of Exam

- Scheduling of exam based on time
- Scheduling of exam for certain set of students

Conduct Exams

- Question Based Timer Test
- Timestamping & Attendance
- Image/Audio/Video Test
- Password Protected Test
- Increase/Decrease Test Time for Incomplete Test
- Face Detection/Remote Proctoring
- Keyboard Restrictions: exam proctors have the ability to limit the students access to the keyboard.

Analyze Exams

- Result can be graded Manually /Automatically
- Analytical Report of the Result
- Score Analysis
- Question/Answer Analysis

Student/User Management

- Directly Import Student Details from Excel
- Show Solution/ Answer of Attempted Question
- Print Question Paper with Solutions
- Provision for Visually Impaired and Handicapped Students

Notification

- SMS/Mail/Mobile App Notification

Data Security

- Data Storage & Privacy
- Encryption of Transferred Data
- Data Ownership with the Client
- Vulnerability & Penetration Testing
- Access Rights and Roles

SECTION VI

FINANCIAL BID

SECOND COVER TITLED AS “FINANCIAL BID” CONSIST OF

Financial (Price) Bid for **Proctoring of Online Examinations of Punjab Engineering College (Deemed to be University), Chandigarh** to be delivered by the bidder at Punjab Engineering College (Deemed to be University), Sector 12, is to be submitted online in excel sheet provided thereon.

Separate Rates should be quoted by the bidders for conducting 0-5000, 5000-10000, 10000-15000 and 15000-20000 examinations respectively. The bidder with the lowest aggregate bid will be selected to award the contract.

Notes:

1. Rate should be quoted in Indian Rupees only. Taxes/Levies as per Indian law shall be made.
2. Renewal of Registration of Public Funded Research Institutions or a University or an Indian Institute of Technology or Indian Institute of Science, Bangalore or a Regional Engineering College, other than a Hospital, for the purposes of availing Customs Duty exemption in terms of Notfn. No. 51/96-Customs dt. 23.07.1996, Notfn. No. 47/2017-Integrated Tax (Rate) dt. 14.11.2017 and Notfn. No. 45/2017-Central Tax (Rate) dt. 14.11.2017, Notfn. No. 45/2017 – Union Territory Tax (Rate) dt. 14.11.2017, as amended from time to time.

The Format for Financial Bid is attached as Annexure.

SECTION VII

GENERAL TERMS AND CONDITIONS

1. Clarification of Bidding Documents

A prospective Bidder requiring any clarification of the bidding documents may notify the PEC in writing or by telex or cable or fax at the PEC's mailing address indicated in the Invitation for Bids. The PEC will respond in writing to any request for clarification of the bidding documents which it receives no later than 15 days prior to the deadline for submission of bids prescribed by the PEC.

2. Amendment of Bidding Documents

At any time prior to the deadline for submission of bids, the PEC may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective bidder, modify the bidding documents by amendment. In order to allow prospective bidders reasonable time in which to take the amendment into account in preparing their bids, the PEC, at its discretion, may extend the deadline for the submission of bids.

3. Language of Bid

The bid prepared by the Bidder, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the PEC, shall be written in English language. Supporting documents and printed literature furnished by the Bidder may be in another language provided they are accompanied by an accurate translation of the relevant passages in the English language in which case, for purposes of interpretation of the Bid, the translation shall govern.

4. Period of Validity of Bids

Bids shall remain valid for 120 days after the deadline for submission of bids prescribed by the PEC. A bid valid for a shorter period shall be rejected by the PEC as non-responsive.

5. Opening of Bids by the PEC

The PEC will open all bids, in the presence of Bidders' representatives who choose to attend, at 3:30 PM on 12.10.2020 and in the following location:

Office of Dean Academic Affairs, Punjab
Engineering College (Deemed to be University),
Sector 12, Chandigarh 160012, India.

The Bidders' representatives who are present shall sign a register evidencing their attendance. In the event of date of opening of Tender being declared a holiday, the due date of opening of the Tender will be the next working day at the same hours and venue.

6. Payment

- Payment for Goods and Services shall be made in Indian Rupees only as follows:
 1. As per actual after successful completion of the assessments.
- Payment shall be made in Indian Rupees only.

8. Documents comprising the Bids

The Bids prepared by the Tenderers shall comprise of following components:

- Bid to be furnished as per the format for technical specifications.
- Technical literature for each product/service, covering full technical specifications.
- Bid prices should be quoted item wise as per format provided in excel sheet only duly signed and complete as per the format.
- Maximum educational discount as could be offered should be mentioned.

9. Cost of Tender

The tenderer shall bear all costs associated with the preparation and submission of its Bid, including the cost of presentation for the purpose of clarification of the bid, if so desired by the PEC and the PEC will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Tendering Process.

10. Penalty Cause

In case of failure/delay in delivering services a penalty @ 2% of the total bid amount will be charged. More than five Failures/delay in delivering services will result in termination of contract.

11. Termination of contract:

If performance of the vendor is not satisfactory in executing the project, then same will be informed in writing by PEC as warning letter and if inspite of issue of warning letter the performance does not prove to the satisfactorily level as per expectation of PEC within a fortnight then second warning letter will be issued. If after issue of second warning letter also performance doesn't satisfy PEC expectation, then Institute reserves the right to terminate the contract prematurely by giving one-month notice in writing without assigning any further reason whatsoever. After the contract comes null and void the amount deemed payable to the vendor (if any) will sine die without any further payment. No further claim from the vendor will be entertained. Decision of competent authority of PEC regarding determining the performance will be final.

12. Force Majeure:

Force Majeure is herein defined as any cause, which is beyond the control of the selected Bidder or the Institute as the case may be which they could not foresee or with a reasonable amount of diligence could not have foreseen and which substantially affect the performance of the Contract, such as: Natural phenomena, including but not limited to floods, droughts, earthquakes, epidemics/pandemic; Acts of any Government, including but not limited to war, declared or undeclared, priorities, quarantines, embargoes; Terrorist attacks, public unrest in work area Restriction, Freight Embargo;

provided either party shall within ten (10) days from the occurrence of such a cause notify the other in writing of such causes. The Bidder or the Institute shall

not be liable for delay in performing his/her obligations resulting from any Force Majeure cause as referred to and/or defined above.

13. Others Terms and Conditions

- An EMD/ bid security of equipment should be submitted in form of FDR/Demand Draft/Banker Cheque/ Bank Guarantee from any commercial Bank in favor of Director, Punjab Engineering College (Deemed to be University) Chandigarh which shall be valid for 45 days beyond final bid validity period. Tender without earnest money shall be considered unresponsive and rejected.
- A Performance security of 10% of the cost of the equipment will have to be deposited by the successful bidder awarded the supply order in form of Fixed Deposited Receipt or Bank Guarantee from a commercial bank which should be valid for 60 days beyond the completion of warranty/contract period.
- Performance Security will be forfeited and credited to the institute (Punjab Engineering College (Deemed to be University), Chandigarh) in the event the supplier does not honour the warranty/contract and other terms and conditions of the tender.
- Tender validity should be 120 days from the opening of tender.
- All legal disputes will be subject to Chandigarh Jurisdiction and will be interpreted under Indian Laws.
- The Director Punjab Engineering College (Deemed to be University) reserves to himself the right to reject any or all tenders without assigning any reasons.
- The firm that has been blacklisted by Centre/State Govt/UT/Boards/Corporations/any government authority/Punjab Engineering College (Deemed to be University) are not eligible for the Tender.
- **All the rates will be FOR, Punjab Engineering College (Deemed to be University), Chandigarh.**
- The institute being a premier Education and Research Institute funded by Chandigarh Administration, discounts as applicable to Research Institute/ Educational Institutes may be provided in the Tender.
- The bidders shall not be allowed to change, alter or modify the bids after expiry of the deadlines for the receipts of bids.
- Situation in which EMD/Performance security will stand forfeited if a bidder withdraws its bid during the period of bid validity specified by the bidder on the bid form (SECTION VII), and in case of successful bidder, if the bidder fails to supply the equipment or to furnish performance security in accordance with the tender.

- In case, any free gift scheme / cash scheme is launched by the company same will be offered by the vender to Punjab Engineering College (Deemed to be University), Chandigarh free of cost.
- Generally, the bid offer will be received /opened on the day as specified in the schedule. If the scheduled date is declared as a holiday, then the tender shall be received / opened on the next working day at the same time.
- The institute has been exempted from custom and central excise duty.
- A technical compliance chart of the quoted product mentioning technical specifications of quoted product verses asked specifications is compulsory. Attach the compliance chart with technical bid.
- The bidding agency shall ensure a single point of contact with PEC and shall be solely responsible for the execution and delivery of the work.
- The bidder should participate as a single entity; no consortium or group companies will be allowed.
- The Bidder should be registered with appropriate tax authorities such as Income tax, GST etc., and should submit valid certificates of registration with these authorities.
- The bidder should have all relevant facilities and logistics available to execute the work. Appropriate technology, hardware and software, dedicated connectivity, trained remote proctoring staff, adequate security measures with due diligence should be available.
- The agency should have an in-house quality assurance and product testing team with proven and robust quality management processes required for conducting the remote proctored computer based online examination.

All the terms and Conditions of this tender document are acceptable to me /us.

Signature of Bidder

SECTION VIII: FORMATS

(To be furnished on the letter head of the Bidder)

FORMAT 1

S. No	Organizational Contact Details	
1.	Name of Organization	
2.	Year of establishment	
3.	Number of employees	
4.	Main areas of business	
5.	Type of Organization Firm/ Trust / Company registered under the Indian Companies Act, 2013	
6.	Particulars of registration with various Govt. Bodies/ Tax Authorities a. Registration no b. Place of Registration c. Date of Validity	
7.	Whether the firm has been blacklisted by any Central Govt. / State Govt./PSU/ Govt. Bodies / Autonomous bodies/ IITs & IIMs/Reputed Educational Institutes in India. If yes, please furnish details, If No, attach Undertaking in regards to not being blacklisted.	
8.	Address of registered office with telephone no. & E-mail	
9.	Address of offices - in National Capital Region of Delhi if any	
10.	Authorized Contact Person with telephone no. & E-mail ID	
11.	EMD of Rs. 75,000/- UTR No: Transaction Date: Bank Details (Attach transaction receipt)	
12.	Bank Details of Company for EMD Return/ Payment Name of the Bank Account Holder (Company) Bank Name Bank Branch Address Account Type: Bank A/C No: IFSC Code: Communication Details: (Attach copy of cancelled cheque)	
13.	Any other information considered necessary but not included above	

Signature of the applicant
Full name of applicant
Stamp & Date

FORMAT 2

Details of Similar Works Executed

S. No.	Client Name (Higher Education Institute / University/ Govt. / PSU/ Others)	Name / Nature of the Exam	No. of candidates	Cost of Project	Project Start Date & End Date	Client Contact Details incl. Name, Phone No. & Email	Completion Certificate Attached
							Yes <input type="checkbox"/> / No <input type="checkbox"/>
							Yes <input type="checkbox"/> / No <input type="checkbox"/>
							Yes <input type="checkbox"/> / No <input type="checkbox"/>
							Yes <input type="checkbox"/> / No <input type="checkbox"/>
							Yes <input type="checkbox"/> / No <input type="checkbox"/>

Signature of the applicant
Full name of applicant
Stamp & Date

FORMAT 3

Financial Strength of the Organization				
S. No	Financial Year	Whether profitable (Yes/NO)	Annual net profit (in Lakhs of Rs.)	Overall annual turnover (in Lakhs of Rs.)
1	2016-17			
2	2017-18			
3	2018-19			

Note: Please enclose auditor's certificate or any other relevant document in support of your claim.

Note: Financial Years can be 2016-17, 2017-18 & 2018-19 OR 2017-18, 2018-19 & 2019-20

Signature of the applicant
Full name of applicant
Stamp & Date

FORMAT 4

Details of technical and administrative personnel to be employed for this project:

S. No.	Designation	No. of employees in this category	Name	Qualification	Professional Exp.	Capacity in which employee would be involved in the work

FORMAT 5

Information to be provided by the Bidder:

Bandwidth Requirements	
Location of the Cloud Data Centre	
Certifications of the Organization	
Data Privacy Guidelines followed by the Organization	

PERFORMANCE SECURITY FORM

(on Non-Judicial Paper)

BANK GUARANTEE BOND FOR PERFORMANCE WARRANTY

To

The President of India, through the Director
Punjab Engineering College (Deemed to be University),
Sector-12, Chandigarh-160012

Dear

Sir,

Sub: _____

1. You, on behalf of President of India, have entered into a contract with reference No. _____ with _____ (herewith after referred to "as the contractor") for the development, fabrication and supply of (herein after referred to as stores) for the price and on the terms and conditions contained in the said contract.
2. In accordance with the terms of said contract the Contractor has undertaken to produce a Bank Guarantee for Rs. _____ being 10% of (Rs. _____) of the total value of the said stores supplied to you for the due fulfilment of its obligations to the President of India for due performance as per the contract during warranty period.
3. In consideration thereof, we happily expressly, irrevocably and unconditionally undertake and guarantee as principal obligors on behalf of the contractor that in the event that the President of India submits a written demand to us that the contractor has not performed according to the contractual obligations included in the said contract, we will pay you on the written demand, without demur and without reference to the contractor any sum up to a maximum amount of Rs.

(Rupees. _____
_____).

Your demand shall be conclusive evidence to us that such repayment is due under the terms of the said contract. Payment by us to you will be made within (30) days from receipt of your written request making reference to this guarantee and on demand.

4. This guarantee shall not be revoked without your express consent and shall not be affected by your granting any indulgence to the contractor, which shall include but not be limited to postponement from time to time of the exercise the same in any manner at any time and either to forbear or to enforce any covenant continued or implied in the said contract or any other course remedy or security available to you, and our Bank shall not be released from its obligations under this guarantee by your exercising any of your rights with reference to matters aforesaid or any of them or by reason of any other indulgence shown by you or by any other matter or thing whatsoever which under law would, but for this provision, have the effect of relieving our bank from its obligation under this guarantee.
5. Notwithstanding anything herein contained, our liability under this guarantee is restricted to Rs. _____ (Rupees _____).and the

guarantee shall remain in force upto and including the day of being reported to us by you returned to us duly discharged.

6. Unless a demand or claim under this guarantee is made on us in writing on or before the aforesaid expiry date as provided above or unless this guarantee is extended by us all your rights under this guarantee shall be prescribed and we shall be discharge from the liabilities hereunder.
7. This guarantee shall not be affected by any change in the constitutions of our Bank or of the contractor or for any other reason whatsoever.

We, lastly undertake not to revoke this guarantee during its currency except with the prior consent from your office in writing.

Not with standing anything contained herein:

- i. Our liability under this Bank Guarantee shall not exceed Rs. _____ (Rupees. _____)
- ii. This Bank Guarantee shall be valid upto _____.
- iii. We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before

This Bank Guarantee shall be returned to our _____ Name of the Bank Branch at _____ Office Address, once the purpose of the issuance has been fulfilled or upon expiry of this guarantee whichever is earlier. Even return of Original Bank Guarantee is essential for invoking the guarantee with specific request letter from the beneficiary.

Witness: _____, Signature _____

Witness: _____, Signature _____

For _____ Bank

For _____ Bank

Authorized Signatory

Authorized Signatory