STATE COMMON ENTRANCE TEST CELL,
MAHARASHTRA STATE, MUMBAI

REQUEST FOR PROPOSAL (RFP) for
Onboarding Agency for Conduction of Computer based
online Common Entrance Test and Centralized
Admission Process A.Y. 2023-24 for CET CELL, Mumbai

Commissioner & Competent Authority
State Common Entrance Test Cell, Mumbai

8th Floor, New Excelsior Theater Building, AK Nayak Marg,
Fort, Mumbai, Maharashtra 400001
E-mail – cetcell-mah@gov.in
Phone Nos:- 022-22016153/57/59
Website - www.mahacet.org
Tender Notice

Bids, valid for a minimum period of 180 days from the date of opening are invited by Maharashtra CET CELL for Onboarding Agency for Conduction of Computer based online Common Entrance Test and Centralized Admission Process A.Y. 2023-24.

<table>
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<th>Tender Fees (non-refundable)</th>
<th>INR 10,000/- (INR Ten Thousand Only)</th>
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<tr>
<td>Earnest Money Deposit (refundable)</td>
<td>INR 2,00,00,000/- (INR Two Crores Only)</td>
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<th>Topic</th>
<th>Date &amp; Time</th>
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<tr>
<td>1</td>
<td>Publication of Tender notice in newspaper</td>
<td>Thursday, 19/01/2023</td>
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<tr>
<td>2</td>
<td>Start date of issuance / sale of RFP document</td>
<td>Thursday, 19/01/2023, 11.00 AM</td>
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<tr>
<td>3</td>
<td>Date and Time of Pre-Bid Meeting</td>
<td>Tuesday, 24/01/2023, 12.30 PM</td>
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<td>4</td>
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<tr>
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<td>Date and Time for opening of Technical bids</td>
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<td>6</td>
<td>Date and Time for Technical Presentation / Solution demonstration by qualified bidders</td>
<td>Tuesday, 07/02/2023, 11.30 AM</td>
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<td>7</td>
<td>Date and Time for opening of Commercial bids</td>
<td>Wednesday, 08/02/2023, 11.30 AM</td>
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<td>Award of LOI</td>
<td>Thursday, 09/02/2023, 3.00 PM</td>
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<tr>
<td>9</td>
<td>Contact Person for queries</td>
<td>Dr. Mangesh Nikam (Administrative Officer)</td>
</tr>
<tr>
<td>10</td>
<td>Official Email ID</td>
<td><a href="mailto:cetcell-mah@gov.in">cetcell-mah@gov.in</a></td>
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Authorized Signatory
Commissioner & Competent Authority
State Common Entrance Test Cell, Mumbai
## Bid Data Sheet

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<td>Onboarding Agency for Conduction of Computer based online Common Entrance Test and Centralized Admission Process A.Y. 2023-24 for CET CELL, Mumbai</td>
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<td>INR 10,000 (INR Ten Thousand only)</td>
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<td>4</td>
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<td>INR 2,00,00,000 (INR Two Crores Only)</td>
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<td>Bid Validity Period</td>
<td>180 days from the date of opening of commercial bids</td>
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<td>8</td>
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<td>Conference Hall, 9th Floor, New Excelsior Building, A. K. Nayak Marg, Fort, Mumbai- 400 001.</td>
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<td>10</td>
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Disclaimer

The information contained in this Request for Proposal document (“RFP”) whether subsequently provided to the bidders, (“Bidder/s”) in documentary form by CET CELL or any of its employees or advisors, is provided to Bidders on the terms and conditions set out in this Tender document and any other terms and conditions subject to which such information is provided.

This RFP is not an agreement and is not an offer or invitation to any party. The purpose of this RFP is to provide the Bidders or any other person with information to assist the formulation of their technical & financial offers (“Bid”). This Tender document does not purport to contain all the information each Bidder may require. This Tender document may not be appropriate for all persons, and it is not possible for CET CELL and their employees or advisors to consider the objectives, technical expertise and particular needs of each Bidder. The assumptions, assessments, statements and information contained in the Bid documents, may not be complete, accurate, adequate or correct. Each Bidder must therefore conduct its own analysis of the information contained in this RFP and to seek its own professional advice from appropriate sources.

Information provided in this Tender document to the Bidder is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and shall not be regarded as a complete or authoritative statement of law. CET CELL accepts no responsibility for the accuracy or otherwise for any interpretation of opinion on law expressed herein.

CET CELL and their employees and advisors make no representation or warranty and shall incur no liability to any person, including the Bidder under law, statute, rules or regulations or tort, the principles of restitution or unjust enrichment or otherwise for any loss, cost, expense or damage which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, reliability or completeness of the RFP, and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way in this Selection Process.

CET CELL also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in this RFP. CET CELL may in its absolute discretion can amend or supplement the information in this RFP.

CET CELL or its authorized officers / representatives / advisors reserve the right, without prior notice, to change the procedure for the selection of the Successful Bidder or terminate discussions and the delivery of information at any time before the signing of any agreement for the Project, without assigning reasons thereof.

The issue of this Tender document does not imply that CET CELL is bound to appoint the Bidder (as defined hereinafter), for execution of the project and CET CELL reserves the right to reject all or any of the Bidders or Bids without assigning any reason whatsoever.

The RFP does not address concerns relating to diverse investment objectives, financial situation and particular needs of each party. The tender Document is not intended to provide the basis for any investment decision and each Bidder must make its / their own independent assessment in respect of various aspects of the techno-economic feasibilities of the Project. No person has been authorized by CET CELL to give any information or to make any representation not contained in the tender Document.

The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by CET CELL or any other costs incurred in connection with or relating to its Bid. All such costs and expenses will remain with the Bidder and CET CELL shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation for submission of the Bid, regardless of the conduct or outcome of the Selection process.
### Glossary

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<td>ACD</td>
<td>Automatic Call Distribution</td>
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<tr>
<td>56</td>
<td>IT</td>
<td>Information Technology</td>
</tr>
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<td>57</td>
<td>IVRS</td>
<td>Interactive Voice Response System</td>
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<tr>
<td>58</td>
<td>JEE</td>
<td>Joint Entrance Examination</td>
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<td>59</td>
<td>KPI</td>
<td>Key Performance Indicator</td>
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<td>60</td>
<td>LoA</td>
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<td>61</td>
<td>LoI</td>
<td>Letter of Intent</td>
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<td>62</td>
<td>MCA</td>
<td>Ministry of Corporate Affairs</td>
</tr>
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<td>63</td>
<td>MIS</td>
<td>Management Information System</td>
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<tr>
<td>64</td>
<td>MoA</td>
<td>Memorandum of Association</td>
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<td>65</td>
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<td>Memorandum of Understanding</td>
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<td>66</td>
<td>NBE</td>
<td>National Board of Examinations</td>
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<td>67</td>
<td>NDA</td>
<td>Non-Disclosure Agreement</td>
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<tr>
<td>68</td>
<td>NRI</td>
<td>Non Resident Indian</td>
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<tr>
<td>69</td>
<td>OEM</td>
<td>Original Equipment Manufacturer</td>
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<td>Terms</td>
<td>Meaning</td>
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<tr>
<td>---------</td>
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<td>70</td>
<td>OMS</td>
<td>Out of Maharashtra State</td>
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<td>71</td>
<td>PBG</td>
<td>Performance Bank Guarantee</td>
</tr>
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<td>72</td>
<td>PCB</td>
<td>Printed Circuit Board</td>
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<td>73</td>
<td>PoA</td>
<td>Power of Attorney</td>
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<td>74</td>
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<td>Proof of Concept</td>
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<td>Pre-Qualification</td>
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<td>76</td>
<td>PSU</td>
<td>Public Sector Unit</td>
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<tr>
<td>77</td>
<td>PVCS,</td>
<td>Polytron Version Control System</td>
</tr>
<tr>
<td>78</td>
<td>QC</td>
<td>Quality Check</td>
</tr>
<tr>
<td>79</td>
<td>QR</td>
<td>Quick Response</td>
</tr>
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<td>80</td>
<td>RDBMS</td>
<td>Relational Database Management System</td>
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<td>81</td>
<td>RFP</td>
<td>Request for Proposal</td>
</tr>
<tr>
<td>82</td>
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<td>Registrar of Companies, India</td>
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<td>83</td>
<td>SDD</td>
<td>Software Design Description</td>
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<td>84</td>
<td>SDLC</td>
<td>System Development Lifecycle</td>
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<td>85</td>
<td>SI</td>
<td>System Integrator</td>
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<td>86</td>
<td>SLA</td>
<td>Service Level Agreement</td>
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<td>87</td>
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<td>Service Level Requirement</td>
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<td>88</td>
<td>SOA</td>
<td>Service Oriented Architecture</td>
</tr>
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<td>89</td>
<td>SOP</td>
<td>Standard Operating Procedure</td>
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<td>90</td>
<td>SoW</td>
<td>Scope of Work</td>
</tr>
<tr>
<td>91</td>
<td>SP</td>
<td>Service Provider</td>
</tr>
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<td>92</td>
<td>SPoC</td>
<td>Specific Point of Contact</td>
</tr>
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<td>93</td>
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<td>Software Requirement Specification</td>
</tr>
<tr>
<td>94</td>
<td>SSL</td>
<td>Secure Socket Layers</td>
</tr>
<tr>
<td>95</td>
<td>CET CELL</td>
<td>Maharashtra State Common Entrance Test Cell</td>
</tr>
<tr>
<td>Sr. No.</td>
<td>Terms</td>
<td>Meaning</td>
</tr>
<tr>
<td>---------</td>
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<td>------------------------------------------------------</td>
</tr>
<tr>
<td>96</td>
<td>STQC</td>
<td>Standardization Testing and Quality Certification</td>
</tr>
<tr>
<td>97</td>
<td>TCV</td>
<td>Total Contract Value</td>
</tr>
<tr>
<td>98</td>
<td>TDS</td>
<td>Tax Deducted at source</td>
</tr>
<tr>
<td>99</td>
<td>TEC</td>
<td>Technical/Tender Evaluation Committee</td>
</tr>
<tr>
<td>100</td>
<td>TFWS</td>
<td>Tuition Fee Waiver Scheme</td>
</tr>
<tr>
<td>101</td>
<td>TQ</td>
<td>Technical Qualification</td>
</tr>
<tr>
<td>102</td>
<td>UAT</td>
<td>User Acceptance Testing</td>
</tr>
<tr>
<td>103</td>
<td>UIDAI</td>
<td>Unique Identification Authority of India</td>
</tr>
<tr>
<td>104</td>
<td>UPS</td>
<td>Uninterrupted Power Supply</td>
</tr>
</tbody>
</table>

Definitions:-

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Terms</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Client / Purchaser</td>
<td>It refers to Maharashtra State Common Entrance Test Cell or CET CELL any of their designated authorities. References to “Client”, “CET CELL”, “Purchaser”, “Buyer”, “Customer”, etc. in this RFP document shall be construed to refer to CET CELL (i.e. Maharashtra State Common Entrance Test Cell), as the case may be.</td>
</tr>
<tr>
<td>2</td>
<td>Bidder / Vendor</td>
<td>Bidder/Vendor means the companies / firms bidding for the Project through this invitation of Request for proposal (RFP) exclusively for CET CELL for the specified scope of work</td>
</tr>
<tr>
<td>3</td>
<td>RFP / Tender</td>
<td>It shall mean this RFP document which comprises of the following sections: Disclaimer, Glossary, Invitation for Proposal, Project Background, Scope of Work (Summary and Detailed), Evaluation Process, Roles and Responsibilities of Stakeholders, Sample Service Level Agreement, Forms of Bid which include any applicable Annexure thereto</td>
</tr>
<tr>
<td>4</td>
<td>Purchase Order/Work Order/Letter of Award or Intent</td>
<td>Purchase or Work Order refers to a commercial document and first official offer issued by Purchaser to Successful bidder indicating types, quantities and agreed prices for products and services as envisaged in the Scope of work</td>
</tr>
<tr>
<td></td>
<td>Last 3 financial years / Income tax assessment year</td>
<td>The last three financial years are 2019-20, 2020-2021 and 2021-2022</td>
</tr>
<tr>
<td>---</td>
<td>-----------------------------------------------</td>
<td>---------------------------------------------------------------------</td>
</tr>
<tr>
<td>6</td>
<td>Applicable Laws</td>
<td>Includes all applicable statutes, enactments, acts of legislature or parliament, laws, ordinances, rules, by-laws, regulations, notifications, guidelines, policies, directions, directives and orders of any Governmental authority, tribunal, board, court or other Quasi-judicial authority.</td>
</tr>
<tr>
<td>7</td>
<td>Bid Evaluation Committee</td>
<td>The committee constituted by CET CELL for the purpose of evaluation of bids received in response to this RFP document</td>
</tr>
<tr>
<td>8</td>
<td>Confidential Information</td>
<td>Confidential Information means any information disclosed to or by any Party to this Contract and includes any information in relation to the Parties, a third party or any information with regard to any candidate / department, including any such information that may come to the knowledge of the Parties hereto / Bidder’s team by virtue of this Contract that: • is by its nature confidential or by the circumstances in which it is disclosed confidential; or • is designated by the disclosing Party as confidential or identified in terms connoting its confidentiality; but does not include information which is or becomes public knowledge other than by a breach of this Contract</td>
</tr>
<tr>
<td>9</td>
<td>Contract</td>
<td>“Contract” means the Agreement entered into between the Purchaser and the Bidder as recorded in the Contract form signed by the Purchaser and the Bidder including all attachments and Annexes thereto, the Tender and all Annexes thereto and the agreed terms as set out in the bid, all documents incorporated by reference therein and amendments and modifications to the above from time to time.</td>
</tr>
<tr>
<td>10</td>
<td>CAP</td>
<td>Centralized Admission Process</td>
</tr>
<tr>
<td>11</td>
<td>Deliverables</td>
<td>“Deliverables” means the products, infrastructure and services agreed to be delivered by the Bidder in pursuance of the Agreement as listed in Scope of Work of the RFP and includes all documents related to the solution, user manual, business designs, training materials, technical manual, design, process and operating manuals, service mechanism policies and guidelines and source code and all respective modifications</td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
<tr>
<td>12</td>
<td>ELCT</td>
<td>English Language Competency Test</td>
</tr>
<tr>
<td>13</td>
<td>Performance Guarantee</td>
<td>“Performance Guarantee” or “Performance Bank Guarantee” or “PBG” shall mean an unconditional and irrevocable bank guarantee provided by a Nationalized Bank to CET CELL on behalf of the Bidder amounting to 3% of the estimated agreement value, pursuant to the Agreement. The PBG shall be valid for a period of 90 days post the expiry of the contract, unless extended pursuant to the Agreement.</td>
</tr>
<tr>
<td>14</td>
<td>Security Deposit</td>
<td>Security Deposit (SD) shall mean an unconditional and irrevocable Security Deposit by way of Performance Bank Guarantee or Demand Draft provided by onboarded SI from Nationalized or Reputed Scheduled Bank to CETCELL on behalf of the Bidder amounting to 3% of the agreement value, pursuant to the Agreement. The SD shall be valid for a period of 180 days post the expiry of the contract, unless extended pursuant to the Agreement.</td>
</tr>
<tr>
<td>15</td>
<td>Project Data</td>
<td>“Project Data” means all proprietary data of the Project generated out of the Project operations and transactions, documents and related information including but not restricted to user data which the Bidder obtains, possesses or processes in the context of providing the Services to the users pursuant to this RFP including the SLA.</td>
</tr>
<tr>
<td>16</td>
<td>Project Proprietary Information</td>
<td>“Project Proprietary Information” shall mean Proprietary Information of CET CELL provided to the Bidder for providing the Services and include all modifications, enhancements and other derivative works of such Project Proprietary Information arising as a result of Services rendered by the Bidder. Proprietary Information means processes, methodologies and technical and business information, including drawings, designs, formulae, flow charts, data and computer programs already owned by, or granted by third parties to a Party hereto prior to its being made available under this RFP, or the SLA.</td>
</tr>
<tr>
<td>17</td>
<td>Service Level Agreement</td>
<td>“Service Level Agreement” or “SLA” means the agreement on service levels between CET CELL and Bidder, in terms of the Service Level requirements as per the model set out in Annexure 7 of this RFP. Service Level Agreement will be finalized by purchaser and it will be binding on SI.</td>
</tr>
<tr>
<td>18</td>
<td>System Integrator/Agency/Vendor</td>
<td>“System Integrator” or “SI” means the agencies selected by the Purchaser, which is responsible for integration, configuration, customization and extension of CET CELL Web Portal, data migration, change management &amp; capacity building, handholding support and operation &amp; maintenance.</td>
</tr>
<tr>
<td></td>
<td>Third Party Systems</td>
<td>“Third Party Systems” means systems (or any part thereof) in which the Intellectual Property Rights are owned by a third party and to which SI has been granted a license to use and which are used in the provision of Services</td>
</tr>
<tr>
<td>---</td>
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<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>20</td>
<td>Third Party Agency</td>
<td>“Third Party Agency” means the agency other than SI appointed for the purpose of certification of the hardware and software by conducting various types of tests</td>
</tr>
<tr>
<td>21</td>
<td>Term</td>
<td>“Term” means the total man-months required by the Bidder to complete the project as per the specified scope of work</td>
</tr>
<tr>
<td>22</td>
<td>SPoC</td>
<td>Single point of Contact</td>
</tr>
<tr>
<td>23</td>
<td>Operations and Maintenance” or “O&amp;M</td>
<td>“Operations and Maintenance” or “O&amp;M” means the services to be rendered, as per the SLA, during the period commencing from the “Go-Live date” till the expiry or termination of the Master Service Agreement</td>
</tr>
</tbody>
</table>
1 Request for Proposal

Online tenders are invited from eligible, reputed, qualified firms with adequate technical know-how and financial capabilities for Onboarding Agency for Conduction of Computer based online Common Entrance Test and Centralized Admission Process A.Y. 2023-24 for CET CELL, Mumbai as detailed out in the scope of work of this RFP document. This invitation bid is open to all Bidders meeting the minimum eligibility criteria as mentioned in this RFP document.

2 Background Information

2.1 About CET CELL, Government of Maharashtra

The State Common Entrance Test Cell (CET CELL) is established under Admission Regulating Authority (ARA) as per the provision in Section 10 of Maharashtra Unaided Private Professional Educational Institutions (Regulation of Admissions and Fees) Act, 2015 and subsequent GR thereof. The CET CELL has successfully conducted online registration for Technical, Higher, Agriculture, Medical, Ayush and Art Education examination for 1001816 candidates in 2022 out of which 756140 candidates appeared for various CETs and around 6 lakhs candidates have registered for CAP in the A.Y.2022-23

Currently, the CET Cell has a website www.mahacet.org which is assisting candidates to:

For CET Process:

✓ Fill online Application Form
✓ Upload relevant documents
✓ Print application
✓ Upload photograph and signature
✓ Online payment
✓ Hall Ticket Sharing
✓ Conduct Online exams

For CAP Process:

✓ Fill CAP Online Application Form
✓ Upload relevant course specific related documents
✓ Print application form, Option form for CAP only.
✓ Upload photograph and signature
✓ Online payment
✓ Display Provisional Merit List,
✓ Display Final Merit list.
✓ Display round wise allocations
✓ Display Notifications & Notices.

The CET / CAP process followed by CET CELL has been extensively covered in their CET and CAP Information Brochure respectively.

2.2 Basic Information

a) CET Cell invites responses to this Request for Proposals Onboarding Agency for Conduction of Computer based online Common Entrance Test and Centralized Admission Process A.Y. 2023-24 for CET CELL, Mumbai as described in subsequent section of this RFP, “Scope of Work”

b) Any contract that may result from this Government procurement competition will be issued for a term of 36 months (“The Term”).
c) The Purchaser reserves the right to review the performance of the SI as per the terms and conditions of the Agreement after a period of 12 months and reserves the right to terminate the contract and levy fine as per the provisions in the contract in case of breach of terms and conditions of the contract by the SI. For the entire period of the agreement the financial terms and conditions will remain the same.

d) Proposals must be received not later than time, date and at the venue mentioned in the RFP.

e) Proposals that are received late WILL NOT be considered.

f) It is expected that once a vendor has been selected by the CET CELL to execute the work as per the given scope, the vendor will provide SPoCs to the CET CELL ensuring the system is successfully running and the implementation and processing is completed.

2.3 CETs conducted by CET CELL

The list of CETs conducted by CET CELL is as mentioned below,

<table>
<thead>
<tr>
<th>#</th>
<th>Department name</th>
<th>CET name</th>
</tr>
</thead>
</table>
| 1 | Directorate of Technical Education (DTE) | 1. MHTCET (for Engineering/Pharmacy courses)  
2. MAH-MBA/MMS CET  
3. MAH-MCA CET  
4. MAH-MHMCT CET  
5. MAH-MARCH CET  
6. MAH-BHMCT CET  
7. MAH-B-Planning CET  
8. MAH-B.Design CET |
| 2 | Directorate of Higher Education (DHE) | 9. MAH-M.Ed. CET  
10. MAH-M.P.Ed. CET  
11. MAH-B.Ed.-M.Ed. (Integrated) CET  
12. MAH-LLB, -5 Yrs. (Integrated) CET  
13. MAH-LLB-3 Yrs. CET  
14. MAH-B.Ed. CET  
15. MAH-B.P.Ed. CET  
16. MAH-B.A.-B.Ed./B.Sc.-B.Ed. (Integrated)CET |
| 3 | Directorate of Medical Education and Research (DMER) | 17. PGP/PGO/PGASLP/MSc(P&O) CET |
| 4 | Maharashtra Council of Agriculture Education and Research (MCAR) | 18. MHT-CET (For Agriculture Courses) |
| 5 | Directorate of Arts (DoA) | 19. MAH-AAC-CET (Practical based Off Line) |

The count of exams may vary subject to directions from the State Government. However, the system shall have facility of configuring new exams / removal of any exams from Admin login of CET CELL. Tentative details of CETs conducted by CET CELL are given in Annexures.
### 2.4 Directorate wise Course(s) – available for Centralized Admission Process

<table>
<thead>
<tr>
<th>Sr No</th>
<th>Education Stream</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Technical Education</td>
<td>Bachelor of Engineering</td>
</tr>
<tr>
<td>2</td>
<td>Technical Education</td>
<td>Bachelor of Pharmacy</td>
</tr>
<tr>
<td>3</td>
<td>Technical Education</td>
<td>Master of Engineering</td>
</tr>
<tr>
<td>4</td>
<td>Technical Education</td>
<td>Master of Business Administration / Master of Management Studies</td>
</tr>
<tr>
<td>5</td>
<td>Technical Education</td>
<td>Master of Computer Application</td>
</tr>
<tr>
<td>6</td>
<td>Technical Education</td>
<td>Masters of Hotel Management &amp; Catering Technology</td>
</tr>
<tr>
<td>7</td>
<td>Technical Education</td>
<td>Master of Architecture</td>
</tr>
<tr>
<td>8</td>
<td>Technical Education</td>
<td>Bachelor of Hotel Management &amp; Catering Technology</td>
</tr>
<tr>
<td>9</td>
<td>Technical Education</td>
<td>Bachelor of Architecture</td>
</tr>
<tr>
<td>10</td>
<td>Technical Education</td>
<td>B. Planning</td>
</tr>
<tr>
<td>11</td>
<td>Technical Education</td>
<td>B. Designing</td>
</tr>
<tr>
<td>12</td>
<td>Technical Education</td>
<td>Master of Pharmacy</td>
</tr>
<tr>
<td>13</td>
<td>Technical Education</td>
<td>Direct Second Year Degree in Engineering</td>
</tr>
<tr>
<td>14</td>
<td>Technical Education</td>
<td>Direct Second Year Degree in Pharmacy</td>
</tr>
<tr>
<td>15</td>
<td>Technical Education</td>
<td>Direct Second Year Degree in Hotel Management &amp; Catering Technology</td>
</tr>
<tr>
<td>16</td>
<td>Technical Education</td>
<td>M.Planning</td>
</tr>
<tr>
<td></td>
<td>Higher Education</td>
<td>Master of Education</td>
</tr>
<tr>
<td>1</td>
<td>Higher Education</td>
<td>Master of Physical Education</td>
</tr>
<tr>
<td>2</td>
<td>Higher Education</td>
<td>Bachelor of Education, Master's in Education (Integrated)</td>
</tr>
<tr>
<td>3</td>
<td>Higher Education</td>
<td>Bachelor of Law 5 Years (Integrated)</td>
</tr>
<tr>
<td>4</td>
<td>Higher Education</td>
<td>Bachelor of Law 3 Years</td>
</tr>
<tr>
<td>5</td>
<td>Higher Education</td>
<td>Bachelor of Education</td>
</tr>
<tr>
<td>6</td>
<td>Higher Education</td>
<td>Bachelor of Physical Education</td>
</tr>
<tr>
<td>7</td>
<td>Higher Education</td>
<td>Bachelor of Arts/Bachelor of Science - Bachelor of Education. (Integrated)</td>
</tr>
<tr>
<td>8</td>
<td>Medical and Ayush Education</td>
<td>Post graduate in Physiotherapy</td>
</tr>
<tr>
<td>9</td>
<td>Medical and Ayush Education</td>
<td>Post graduate in Occupational Therapy</td>
</tr>
<tr>
<td>10</td>
<td>Medical and Ayush Education</td>
<td>Master of Science in Speech Language Pathology / Audiology</td>
</tr>
<tr>
<td>11</td>
<td>Medical and Ayush Education</td>
<td>Master of Science in Prosthetics &amp; Orthotics</td>
</tr>
<tr>
<td>12</td>
<td>Medical and Ayush Education</td>
<td>Post-Graduation in Medicine (MD / MS)</td>
</tr>
<tr>
<td>13</td>
<td>Medical and Ayush Education</td>
<td>Post-Graduation in Dental (MDS)</td>
</tr>
<tr>
<td>14</td>
<td>Medical and Ayush Education</td>
<td>Bachelor of Medicine &amp; Bachelor of Surgery (MBBS)</td>
</tr>
<tr>
<td>15</td>
<td>Medical and Ayush Education</td>
<td>Bachelor of Dental Surgery (BDS)</td>
</tr>
<tr>
<td>16</td>
<td>Medical and Ayush Education</td>
<td>Bachelor of Ayurveda Medicine &amp; Surgery (BAMS)</td>
</tr>
<tr>
<td>17</td>
<td>Medical and Ayush Education</td>
<td>Bachelor of Homeopathic Medicine &amp; Surgery (BHMS)</td>
</tr>
<tr>
<td>18</td>
<td>Medical and Ayush Education</td>
<td>Bachelor of Unani Medicine &amp; Surgery (BUMS)</td>
</tr>
<tr>
<td>19</td>
<td>Medical and Ayush Education</td>
<td>Bachelor of Physiotherapy</td>
</tr>
<tr>
<td>20</td>
<td>Medical and Ayush Education</td>
<td>Bachelor of Occupational Therapy</td>
</tr>
<tr>
<td>Sr No</td>
<td>Education Stream</td>
<td>Course Name</td>
</tr>
<tr>
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</tr>
<tr>
<td>14</td>
<td></td>
<td>Bachelor of Audiology &amp; Speech, Language &amp; Pathology</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>Bachelor of Prosthetics &amp; Orthotics</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>Bachelor of Science in Nursing</td>
</tr>
<tr>
<td>17</td>
<td></td>
<td>Postgraduate in Ayurveda (MD / MS)</td>
</tr>
<tr>
<td>18</td>
<td></td>
<td>Postgraduate in Homeopathy (MD)</td>
</tr>
<tr>
<td>19</td>
<td></td>
<td>Postgraduate in Unani Medicine (MD / MS)</td>
</tr>
<tr>
<td>1</td>
<td>Agriculture</td>
<td>Bachelor of Science (Honors) Agriculture</td>
</tr>
<tr>
<td>2</td>
<td>Agriculture</td>
<td>Bachelor of Science (Honors) Horticulture</td>
</tr>
<tr>
<td>3</td>
<td>Agriculture</td>
<td>Bachelor of Science (Honors) Forestry</td>
</tr>
<tr>
<td>4</td>
<td>Agriculture</td>
<td>Bachelor of Science (Honors) Fishery</td>
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<td>5</td>
<td>Agriculture</td>
<td>Bachelor of Science (Honors) Community Science</td>
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<tr>
<td>6</td>
<td>Agriculture</td>
<td>Bachelor of Technology (Biotechnology)</td>
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<td>7</td>
<td>Agriculture</td>
<td>Bachelor of Technology (Food Technology)</td>
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<td>8</td>
<td>Agriculture</td>
<td>Bachelor of Technology (Agriculture Engineering)</td>
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<tr>
<td>9</td>
<td>Agriculture</td>
<td>Bachelor of Science (Honors) Agri Business Management</td>
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<tr>
<td>1</td>
<td>Fine Art Education</td>
<td>Bachelor of Fine Arts (Painting)</td>
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<tr>
<td>2</td>
<td>Fine Art Education</td>
<td>Bachelor of Fine Arts (Applied Art)</td>
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<td>3</td>
<td>Fine Art Education</td>
<td>Bachelor of Fine Arts (Textile Design)</td>
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<td>4</td>
<td>Fine Art Education</td>
<td>Bachelor of Fine Arts (Sculpture)</td>
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<td>5</td>
<td>Fine Art Education</td>
<td>Bachelor of Fine Arts (Metal Work)</td>
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<td>6</td>
<td>Fine Art Education</td>
<td>Bachelor of Fine Arts (Ceramics)</td>
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<tr>
<td>7</td>
<td>Fine Art Education</td>
<td>Bachelor of Fine Arts (Interior Decoration)</td>
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PART A: CET

3 Scope of Work

3.1 Broad Scope of the Work

1) Developing and Deploying course wise customized online CET application form for A.Y.2023-24
2) Conduction of Computer based online COMMON ENTRANCE TEST (CBT) for CET CELL, Mumbai. Solution shall be deployed / hosted on cloud environment by SI. The CSP shall be empaneled under MeitY’s “Provisional Empanelment of Cloud Service Offerings of Cloud Service providers (CSPs)”
3) Setting up operational management and maintenance of helpdesk to resolve queries regarding various processes of CET
4) Preparation of Audio-Visual Help Content
5) Security Audit of the Application through STQC / CERT-In empaneled agencies Security Audit of the Software, Hardware, Networking of the Centers.
6) Training to Staff of CET CELL / Directorate / Institute & Candidates
7) Development of Mobile app for CET application.
8) IT Disaster Recovery (DR)

3.2 Detailed scope of work

1) On boarded agency shall develop / use the system which will cover the utilities mentioned below. However, the list of utilities is not exhaustive.
2) Detailed requirements will be shared on successful onboarding of the agency during requirement mapping sessions.
3) Details about the courses for which exams are to be conducted are mentioned at 2.3 above.

<table>
<thead>
<tr>
<th>Process</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CET application</td>
<td>1. Development and deployment of customized CET application forms for various professional courses with necessary validation. Development, customization and Deployment of some likely to be added new courses. 2. Candidate registration for CET 3. Centers will be shared by CET CELL 4. UAT of all Applications 5. Allocation of unique application id 6. Validation of Fee Criteria and Eligibility criteria 7. Printing of submitted application form 8. Provide facility for online payment 9. CET application shall have mobile compatibility features 10. Provide facility for updation of Hall ticket downloading, Scribe Declaration format and Unconditional Undertaking</td>
</tr>
<tr>
<td>Payment Gateway</td>
<td>1. Integration of Payment Gateway 2. Auto reversal of amount of multiple payments by same candidate 3. Reconciliation Reports on daily, weekly and monthly basis course wise</td>
</tr>
</tbody>
</table>
4. CET CELL will issue directorate wise account details for integration of payment gateway
5. Payment Gateway employed by select vendor shall give credit on T+1 basis

**Dashboard for Applicant in candidate’s login**

Applicant dashboard will broadly comprise of:

1. Applicant profile
2. Application history
3. Application Current Status
4. Printing Application form & Save it in pdf
5. Downloading Hall Ticket from the Candidate’s log in

This list is illustrative only

**Dashboard of Examination for CET Admin**

Course wise dashboard will broadly comprise of:

1. No of applicants for Course profile
2. Gender, social reservation etc.
3. Activity Schedule for Filling the online application
4. Course wise status of Downloading Hall Ticket

This list is illustrative only

**Handing Over Data to CET CELL**

1. Data Sanitization (Removal of duplicate data)
   - To provide Course wise Soft copy of applicants for Application form, Hall ticket, Score Card, Photograph & Signature in pdf format
2. To provide Complete flat data of all Candidates (complete & incomplete applications) in SQL, Access & Excel format to CET CELL through API
3. Sharing the data in secure and confidential environment using SFTP protocol
4. Ensuring correct and secure transfer of candidate photograph, signature, documents and candidate filling data

**Publishing Notices, notifications and Syllabus**

1. Notifications, schedules
2. CET Syllabus on each course’s on CET web page

This list is illustrative only

**Scheduling of exams**

1. Schedules shall be prepared by the SI as per the procedure and norms of CET Cell after consultation with CET CELL
2. Facility to publish Examination schedules
3. Schedules shall be available on candidates’ Dashboard in candidate login.
4. While scheduling and distributing the candidates in batches, SI shall consider the Gender, Category, Candidature type, Disability status, Medium of Examination of the candidate and the marks secured by the respective candidates in 10th (SSC) and any other prerequisites for normalization for processing the results
5. SI shall ensure random generation of seat number
<table>
<thead>
<tr>
<th>Process and Venue management / allocation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Selection of quality Centers having verified network, LAN, intranet and internet facility. Center hiring and selection and short listing of the verified and tested centers for examination shall done by the agency as per need &amp; demand of CET Cell. The final approval to the venues will be given by CET CELL. The SI shall share the data 15 days prior to publication of Hall tickets.</td>
</tr>
<tr>
<td>2.</td>
<td>The on-boarded agency shall have technical and administrative capacity of conducting online examination in every District headquarters as well as Sub-Divisional headquarters of Maharashtra State. As per the demand of the CET CELL. SI shall able to arrange centers at Taluka in State of Maharashtra. For Some Examinations Centers are to be set up in select cities out of Maharashtra State.</td>
</tr>
<tr>
<td>3.</td>
<td>The selection parameter and criteria for selection of quality examination venue will be discussed and finalized once the agency is boarded.</td>
</tr>
<tr>
<td>4.</td>
<td>Each on boarded center shall given one nodal login. Each center shall have minimum one Center Head, one Server Manager, one Network Expert, one Invigilator for every 25 candidates and supporting staff including cleaners for toilet, minimum 1 male and one female Security Guards for 100 candidates, Frisking Personnel’s one male and one female per 100 candidates , one Senior Supervisor per 100 candidates available during the exam which will be provided by on boarded agency. The invigilators should be minimum graduate and be decently dressed.</td>
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<tr>
<td>5.</td>
<td>Local Police support shall be made available, for this CET Cell will provide administrative support. One male police constable and one female police constable per 100 candidates should be deployed by SI. However, the cost of the same to be borne by the SI as per the norms and rates given by government and must be factored while quoting the price in the commercial.</td>
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<tr>
<td>6.</td>
<td>First aid medical facility shall be made available during the Examination.</td>
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<tr>
<td>7.</td>
<td>Video recording of the entire examination shall be done and be made available in form of HDD per Centre.</td>
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<tr>
<td>8.</td>
<td>Venue shall be allocated as per the business rules/ logic given by CET Cell.</td>
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<tr>
<td>9.</td>
<td>Each venue shall have multiple hall wise seating arrangement, display boards with direction marks.</td>
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<tr>
<td>10.</td>
<td>The initial validation, inspection and shortlisting of the centers to be done by the SI while the Final approval to centers will be done by CET CELL or its authorized representative.</td>
</tr>
<tr>
<td>11.</td>
<td>It would be responsibility of the on-boarded agency to do pre-exam audit of examination centers before the examination (hardware, software, power backup, LAN internet connectivity, Dry Run, etc.)</td>
</tr>
<tr>
<td>12.</td>
<td>Server deployment and management suitable for examination hall planned and number client systems employed including stand by system.</td>
</tr>
<tr>
<td>13.</td>
<td>SI shall have technical facility to deliver the solution in emergent situation to provide hall ticket, change in schedule, change in batch, change exam Center on business WhatsApp, SMS &amp; E-mail of registered candidates as and when required by competent Authority.</td>
</tr>
<tr>
<td>14.</td>
<td>SI shall provide center /venues having better facilities to the candidates and which are convenient for commuting.</td>
</tr>
</tbody>
</table>
**Hall ticket**

1. Format of hall ticket will be approved by CET CELL.
2. Hall ticket shall be made available in applicant’s login.
3. Applicant shall be given facility to download and print hall ticket.
4. Hall ticket shall have necessary security features such as barcode/QR code to validate the authenticity of the Hall Ticket.

**Exam Conduction**

1. CET Examination will be conducted as per schedules decided by CET CELL.
2. Every test center shall have all the Standard pre-verified required facilities and resource as prescribed by CET CELL to be ensured by Onboarding Agency.
3. Technical support required for conduction of online CET shall be available at center physically as well as remotely.
4. The Agency shall have technical ability to conduct end to end online LAN based computer-based test.
5. The Agency shall provide server compatible to the count of candidates at the center and shall also provide for a standby server at each center.
6. SI shall conduct Dry Run Test on all the Computers one day before the examination.
7. The SI shall provide the Log of all the systems/servers/networks, status report of the Power backup and spare computer systems that were included in Dry Run.

**Publish Final Answer key**

1. Final Answer keys will be displayed in the Candidate’s log in.
2. Provision shall made to display question paper given to candidate, answer given by Candidate and correct answer shown in candidate’s login.
3. On boarded agency will give full online support through web portal regarding the objections raised by the candidates regarding the questions/answers of the question papers/test batteries with all required academic references.
4. Payment gateway to be provided to collect the raised objection fees.
5. Provision for auto reversal of the duplicate payment.

**Result processing, Result Preparation and Score Card Sharing**

1. Onboarding agency shall have technical efficiency to process the result of multiple subjects to multiple session examination with standardized normalization procedure which will be confirmed by agency’s statistical expert.
2. Results shall be prepared as per the norms and guidelines given by CET CELL.
3. Application of standardized Statistical treatment to the raw scores for All Multi session Examinations.
4. SI shall provide services of Qualified Statistical Experts having minimum post graduate qualification in Statistics/Mathematics with on hand practical experience in application of various statistical measures for normalization of the data.
5. SI shall appoint persons having research-based experience in the field will be an added advantage who can give Scientific justification of the Statistical Treatment applied and clear the doubts of the Parents and Candidates.
6. SI shall provide for preparing Score card as per format finalized by CET CELL.
7. SI shall provide for making available Results/scorecards in applicant’s login.
8. SI shall provide for printing the score cards from candidates’ logins. It shall capture IP Address, Day, Date and Time of download and Score.
Card with QR code Compatible having Unique identity
9. SI shall provide for Security features of QR code that will be incorporated on the score card to be published by CET CELL to prevent duplication
10. SI shall share necessary features of the QR code with CET CELL
11. SI shall create and maintain result in compatible format for sharing through API

Command Center Dashboard During CET Examination for CET CELL
1. Realtime / Dynamic dashboard shall be provided
2. Reports shall be made available as per requirements of CET CELL. (Day wise / Session wise / Center wise present & absent etc) count
3. Facility to download reports in excel/word and PDF format shall be provided
4. Creation and customization of dashboard shall be done as and when required by the CET CELL
5. Common dashboard for all courses for Admin shall be provided
6. Course wise Separate dashboard with tabular Real-time information shall be provided (It will be discussed with SI)

Support and Helpdesk
1. Facility to register grievance/ticket from applicant’s login shall be provided
2. Grievance / Ticket shall be resolved in prescribed time
3. Exhaustive user manuals shall be made available along with video and audio tutorials
4. Helpdesk support through email & telephone call shall available 9 am to 7 pm on all days including holidays.
5. Human Resources shall be trained to understand activities of CET CELL
6. Reports from call center & Helpdesk shall be submitted on daily / weekly basis as per format given by CET CELL

Local / Regional / National Govt. Guidelines / Orders issued from time to time
The bidder shall follow all the orders being issued by the local / regional / national government authorities with prior consultation of CET CELL

The bidder will be required to Develop, Deploy and Customize online CET application form facilitate Applicant Registration and preparation of Mock Test for each course. The onbarded agency needs to schedule and conduct LAN based Computer test.

Details about the courses for which exams are to be conducted are mentioned above at 2.3.

3.3 Type of Examination to be conducted by the Bidder

The bidder shall conduct LAN based Computer Based Test under supervision of Invigilators as per the procedures / regulation laid by the CET CELL. These examinations shall be conducted following the prevailing norms / rules / safety measure for any pandemic defined by Government of Maharashtra and Government of India. The CET CELL is authorized to take appropriate action against the bidder in case of any breach in norms / rules set by Government of Maharashtra and Government of India with reference to pandemic. The bidders are requested to take appropriate consideration accordingly while quoting commercial bid.

3.4 Selection criteria in one examination shift (Normalization)
1) The examinations are to be conducted in LAN based CBT Mode (Computer Based CET Examinations)
in multiple shifts if required. In single shift exam only one set of paper is used and candidates are examined in single shift. The SI will make all efforts to minimize the number of batches for each CET by increasing the number of centers and numbers of nodes in each center.

2) Multi shift Examination pattern is used when the number of candidates appearing is large and availability of IT infrastructure is relatively less. The SI shall make positive effort to accommodate minimum 25,000 (Twenty-Five thousand) (excluding 10% buffer facility at each center) candidates in single batch for all examinations. In this case the Candidates are divided equally based on the pre-decided standardized criteria. The Candidates are given different sets of Questions papers in every shift and it is quite possible that despite all efforts of maintaining equivalence among various question papers, the difficulty level of these question papers administered in different shifts may not be the same. In order to overcome such a situation, Normalization Method shall be used for ensuring that candidates are neither benefitted nor disadvantaged due to the difficulty level of the examination.

3) The process of Normalization is an established practice for comparing candidate scores across multi shift papers and candidates to be ranked by their Normalized Score. Percentile Method to be used for ranking the Candidates. SI must be able to provide services of Qualified Statistical Experts having minimum post graduate qualification in Statistics / Mathematics with on hand practical experience in application of various statistical measures for normalization of the data. The person having research-based experience in the field will be an added advantage who can give Scientific justification of the Statistical Treatment applied and clear the doubts of the Parents and Candidates.

4) Normalization method will be finalized in discussion with the internal expert committee of CET CELL and the Statistical Experts from the Successful Agency. The onboarded agency will be responsible to prepare a document on Normalization Technique used to process the result with scientific justification. SI shall use the realistic data while doing the UAT of normalization Method.

3.5 Conduction of examinations in number of Shifts
The CET CELL will define maximum number of shifts for any examinations based on the registration of the 2022-2023, and the bidder must ensure respective examinations happen within the adequate number of shifts defined by the CET CELL with a maximum variation of ± 10%. List of District-wise and Taluka-wise Exam Centers which can be made available is enclosed in Annexures. SI shall accommodate the candidates within the preferences given by candidates. In no case candidates shall shifted beyond preferences given by candidates. SI shall maintain uniformity in center displayed in online application and centers to be allocated and published in the hall ticket. SI shall make every effort to allocate candidates to the 1st preferences center especially for PWD and female candidates. Attempt will be made to provide 1st preference Center to PWD and female candidates without increasing the shifts.

3.6 GENERAL IT REQUIREMENTS:

3.6.1 Security Requirements:
1) All security standards available in IT industry shall be taken care of
2) Unique ID and password with OTP based feature shall be created for each candidate
3) SI shall maintain and share logs of each and every activity of application form as well as CET
4) Applicant will be given unique key at centers to access the examinations
3.6.2 Other Requirements
1) Agency shall assign single point of contact person to CET CELL during the examination
2) Agency shall ensure the examination shall be conducted smoothly in real time
3) Agency shall schedule/conduct a mock test for registered candidates for CET CELL for pre-exam checks with no additional cost
4) Agency shall be prompted to resolve the issue highlighted by CET CELL, candidate or Invigilator
5) Agency shall electronically transfer the fool-proof centre wise attendance and undertaking data immediately after the completion of Examination. Agency shall provide hard copies of attendance and undertaking within 15 days from the last date of completion of examination for respective courses
6) Agency shall provide all the result as per the schedule & steps decided and declared by CET CELL for respective courses
7) Selected Bidder will be responsible for taking the Insurance of all the CETs and online CET Centers wherein the CET are being conducts if the successful bidder does not take insurance, Selected bidder will be responsible for any loss or damage occurred during the examination. The cost against such loss or damage may be recovered from the amount payable to the bidder or the same can be recovered from the bidder through PBG/SD
8) In case of cancellation of Examination due to technical failure, Network failure, Server failure etc. the selected bidder will have to reorganize the Examination without levying extra charges for the same
9) In case of in ordinate delay in the conduct of examination / relocation of centre, the on boarded
agency shall arrange for transport and necessary arrangement at the centre for candidates without levying extra charges for the same

3.6.3 Administration Services
1) Agency shall prepare Standard Operating Procedure (SOP) for process of conduction of Computer based CET and share the same with CET CELL at least 15 days before the exam for validation and approval
2) Agency to follow all rules and regulations shared by CET CELL from time to time
3) Provision to Examination coordinators to Track Live attendance of candidates
4) Agency shall schedule a mock test for each course seven to fifteen days before the actual examination, to give candidates a feel of the live examination
5) Agency shall review supervisor reports regarding the administration of the online Examination as well as reported Candidate problems and submit extraordinary findings or other irregularities in the Examination to the CET CELL
6) Agency will take all precautions for smooth conduction of examination in fair and transparent manner
7) Agency shall not complete, alter, or assume intent of a Candidate's response in the Examination
8) Agency shall maintain confidentiality and curb corrupt practices
9) Agency must share all log files, recordings and other reports on server securely within 3 days of completion of the examination
10) Agency shall provide all logistic help to CET CELL to answer the Candidates Queries and RTI Query.

3.6.4 The centralized application shall provide the following functionality:

A. Centralized Data Repository
1) The submitted data along with the required attachments are stored in designated specific data stores.
2) The internal stakeholders at CET CELL can access the central application by providing their access credentials
3) The compartmentalized central database will provide for the required role-based access control mechanisms to ensure that departmental data remains secure
4) Eligibility of all professional courses will be incorporated in the Course wise Application form of CET.

B. User Authentication & Role based access control
1) The portal shall have role-based authentication for accessing various functionalities of different modules with encrypted passwords. Access Rights can be given to Individual Users or Groups
2) The portal shall have the flexibility to define distinct role and designation for the users
3) The portal shall have the capability for providing user rights to various forms to create new record, view existing record or edit existing record
4) An audit trail of changes to data in the software shall be maintained to identify the users responsible for the modification. There shall be a facility to create reports on audit logs
5) The portal shall capable of adding more fields to the data input screens for capturing additional business specific information
6) A user will be able to fill the form electronically through internet services and submit his/her queries electronically. The user of the system will be able to track the status of application / inquiry at any point of time.

7) Provision for CET CELL approvers/reviewers to sign system generated letters issued to candidates, departments and other stakeholders using Aadhaar based e-sign mechanism.

C. Workflow Services

1) The application shall provide configurable assignment engine which shall configurable at administrative level, without any need of core IT skills.

2) The application shall support visual workflow definition for business process automation instead of writing script / code.

3) The system shall have a robust rule engine through which it shall possible to configure or modify complex rules in a short period of time, without any need of coding or changes to code. The rule definitions shall done using pseudo-English and using a user-friendly interface instead of XML.

4) Rules repository shall reside centrally and shall accessible using web services and APIs by any part of application, e.g. the Web Portal, mobile apps etc. One shall able to test the rules on directly generated user interface and if needed user shall able to download the outcome in a pdf.

5) SI shall be responsible for updating any changes in the workflow based on CET CELL notifications without any additional cost.

6) On submission of the form appropriate message shall generated. (Reason for rejection in case of failure and acknowledgement of form submission with unique acknowledgement number in case of successful submission).

3.6.5 Management Information System (MIS) Reporting

1) The MIS reporting system shall provide reports and slicing and dicing of information related to candidates, departments, test centers, examinations etc.

2) It shall provide quick graphical outputs based on the ad hoc queries raised.

3) Reporting of details related to the applications received and processed shall generated from the Central Application.

4) Scheduling of important reports shall possible.

5) System shall have feature of user initiated ad hoc (on demand) reports.

6) System shall allow the internal users to enter query parameters/filters, which are then used to select and retrieve only the data that meet the specified criteria.

7) System shall have provision to print and export the report generated in the pre-defined file formats (e.g. spreadsheets, word processing, etc. as per desktop office solution).

8) System shall provide 360-degree dashboard for key data points related to all stakeholders.

3.6.6 Information Security Infrastructure (ISI)

1) SI shall design the security infrastructure and accessories as required for the proposed solutions.

2) The following provides guidelines principles to assist SI to design the security requirements:
   a. The external users will be accessing the e-Services and related application features. The
traffic of external users will be routed through security devices such as Firewalls and IPS. The users will be authenticated through log-in credentials and digital certificates, if available.

b. CET CELL users on Internet will be routed to the core business applications through Application Proxy Firewall and authenticated using their log-in credentials.

3) SI shall include all the components that are required to make the proposed solution complete.

4) Procurement of digital certificates will be done by CET CELL, as & when required.

5) SI will be responsible for drafting the information security policies & procedures for CET CELL & will adhere to the same during the term of the contract.

3.6.7 SMS & Mail Service

1) SI shall send intimation to the Candidate / User Department through SMS, E-mail and Business WhatsApp to the registered mobile number and email id.

2) Illustratively following intimations would be sent through SMS as well as e-Mail:
   a. Registration / Amendment / Cancellation confirmation
   b. Confirmation of any payment made
   c. Any news / update

3) Log of all the SMS and emails sent to the Candidate / User Department shall maintained by the system. Also, the system shall be able to track the SMS / e-mail delivery, read, opened bounce back status.

The system shall be able to send the right format of messages according to the target devices e.g. smartphones, feature phone etc.

4) If APIs are being used, it shall be tested and secured against vulnerabilities and security flaws.

5) SI shall provide secured Bulk Email / SMS service. More than one lakh emails / SMS are expected to be sent per month on an average. Emails can also have attachment. Attachment size on an average is 1 MB, not exceeding 5 MB.

6) Procurement and integration required for Bulk Email service / SMS service shall be done by SI. SI is also responsible for supporting the day to day Bulk email / SMS sending activities.

7) Payment related to the Bulk Email service / Bulk SMS service will be borne by SI.

3.6.8 Payment Gateway

1) SI is expected to procure and enable Payment Gateway including a secure site page using industry-standard encryption technologies like Secure Socket Layers (SSL) to handle the backend communications and transactions, contacting the bank and reporting back on the results.

2) Payment gateway would enable payment receipts for various payments like registration fees, application fees etc. The payment gateway would enable the collection of these receipts and credit the same to CET CELL bank account.

3) All such receipts shall be credited to CET CELL account not later than 2 days. The details of CET CELL account shall be shared with the successful SI at the time of integration.

4) Payment gateway shall also provide facility to refund the payments to the Candidate / User Department's
bank account as per CET CELL instructions

5) Payment gateway provider shall be able to provide CET CELL an MIS to facilitate reconciliation. A user-friendly console must be shared or incorporated in the main application. The MIS shall clearly state:
   a. Name of Candidate / User Department from where money is received
   b. Money received towards (registration fees, application fees etc.)
   c. Amount received and date
   d. Other information as communicated by CET CELL

6) All necessary costs for integrating & operating the payment gateway would be borne by the SI

7) Chargeback cases shall be handled and resolved by SI before submitting the bills for last instalment as per payment terms.

8) SI will encourage UPI based facility for making payment to save on additional payment gateway charges.

3.6.9 Handholding Post implementation

1) SI is expected to assist in conducting the operational activities and provide hand-holding resources for CET CELL personnel at CET CELL Head Office for a period of 1 year after acceptance of system (post Go-live). Some of the indicative tasks identified are given below:
   a. Sensitization towards the new system, the initiative underway, roadmap for the project, the impact and benefits envisaged etc.
   b. This training is suggested for all functionaries of CET CELL who have a major role to play. This training would cover:
      i. User training for the newly developed system for the key users in CET CELL Head office
      ii. User training for redesigned processes, if any
      iii. Hands on training on usage of different modules/ functions of the system
      iv. Training to Associated departments
      v. Overall guidance and continuous training on use of the application including software and hardware.

2) SI shall provide handholding personnel at Purchaser office location. These resources will be deployed for duration as agreed with CET CELL in consecutive discussions.

3.6.10 Helpdesk

A helpdesk is envisaged to be provided for the resolution of technical & operational queries by internal and/or external users. Typical helpdesk activities shall include:

1) Deployment of enough manpower (at least 6 personnel) to attend the helpdesk requests for extending technical support to end users

2) The helpdesk team shall consist of at least 6 personnel & shall be based at CET Cell or any other location suggested by CET Cell. The SI shall provide additional manpower, if required

3) Requirement IT hardware, software, application for helpdesk including PC, Printer, Landline Telephone, etc. to be provided by the SI

4) Implementation & deployment of web-based tool for multi-channel helpdesk.

5) Implementation of Chatbot to answer queries of candidates
6) Operational window for helpdesk – 7 days X 10 hours starting at 9 am to 7 pm. The helpdesk facility must be provided 24 X 7, three days prior to and post CET examination

7) Provide Help Desk facility for agreed SLAs for reporting technical incidents / issues / problems with the system.

8) Helpdesk facility shall provide internal / external users an option to raise tickets for incident reporting

9) The Help desk shall log user calls / tickets related to system and assign a call / incident ID number
   a. Track each call / ticket to resolution
   b. Escalate the calls / tickets, to the appropriate levels, if necessary, as per the escalation matrix agreed upon and developed by SI and CET CELL
   c. Coordinate with respective department for closure of calls / tickets
   d. Analyze the incident / call statistics and provide monthly reports including but not limited to:
      i. Type of incidents / calls logged
      ii. Incidents / calls resolved
      iii. Incidents / calls open

10) Update the frequently asked questions (FAQs) on CET CELL website to assist end users in resolving basic issues themselves

11) SI to maintain voice recordings of the calls for 60 days

12) SI shall provide course wise email id’s and will be answering to the email queries on regular basis

13) SI to provide call analytics and dashboard as requested by the CET CELL.

3.6.11 Project Planning & Monitoring

1) Finalize the Project Charter in order to determine and agree on the project expectations, ground rules, work plan, communication matrix, timelines, Quality Plan, Configuration Management Plan etc.

2) Project Quality Plan document shall specify process elements and the quality actions that the project intends to implement. This shall include the derivation of quality goals, standards followed, schedule of quality assurance activities in the project, defect control, correction and preventive methodology, handling process deviations

3) Configuration Management Plan shall contain procedures to be implemented for managing the configuration of the software solution to be produced by the project. In this plan, SI shall identify configuration items, responsibilities of configuration controller, access restrictions, directory structure needed for configuration management, procedure for change control, method of tracking the status of configuration items, backup procedure, configuration audits, release management, archival procedure, procedure for version / revision numbering

4) SI’s Project Manager shall prepare a detailed project plan (as part of the Project Charter) clearly specifying the tasks, the dependency among the tasks, the duration to perform the tasks, the resources allocated to perform the tasks, the scheduled start and finish dates for the task. This project plan shall also clearly mention the various project milestones and project deliverable schedules. The Project Manager shall also prepare a detailed register of project related risks with details such as Probability of Occurrence of the Risk Factor, Severity of the Risk Factor, Risk Rating, Risk mitigation plan, etc.

5) The detailed project plan shall be internally reviewed for completeness and correctness by SI and
subsequently delivered to CET CELL for its review and acceptance. The mutually agreed Project Plan will form the basis for regular project monitoring.

6) SI shall revise the project plan to incorporate changes due to requirement changes, delay in approvals, etc., if any, and submit the revised project plan to CET CELL.

7) SI shall hold weekly review meetings with CET CELL providing detailed report on the progress of the project (Project Progress Report) clearly highlighting the activities completed in the reporting period, activities planned for the next reporting period, deviations from the planned dates, issues / concerns affecting the project progress, impact on the overall project timelines, project related risks with their mitigation plans.

8) SI shall monitor the quality of the solution being developed in line with the project quality plan. SI’s Project Manager shall periodically review the performance of the project against defined quality goals and take necessary actions for any deviations.

9) SI shall ensure proper configuration management functions are being performed as per the configuration management plan. SI’s Project Manager shall review the activities periodically.

10) SI’s independent quality assurance team shall conduct regular reviews / audits of the project and ensure that the project adheres to the project plan documents.

3.6.12 Requirement Validation

1) It shall be the responsibility of the SI to understand the business processes and other related documents and seek clarifications from CET Cell, regarding the eligibility criteria for each professional course for each directorate. The same shall be incorporated in the live application form in seamless manner so as to enable the candidate to apply for multidisciplinary courses of all directorates without creating any hurdles. The Application filled in shall have the technical capability of absorbing candidates from different streams and validating them as per the eligibility criteria for each course and providing classified information to the candidates as well as directorates/CET CELL for how many courses single candidate has applied and is eligible as per the specialized criteria for the course/s. The agency will have to take ultimate precautions while designing the applications and allowing the appeared candidates to the qualified examinations.

2) If found necessary to modify the designed processes and other documents for successful implementation, the same shall be discussed and the relevant documents shall be modified development as and when required during the project implementation.

3.6.13 Training & Change Management

The training and change management have to be planned prior to the system go-live and in consultation with CET Cell. The training to be imparted to the CET cell employees on all the features and functionalities of the system which will ensure that all the concerned employees of CET Cell to make use of the system as per the requirement

A. Preparation of Training Plan

1) SI would prepare the list of topics to be covered under various Training programs as part of training plan
2) Get approval of CET CELL on the Final Training topics and plan and implement the approved training topics

B. Preparation of Training Material
1) SI shall prepare the solution specific Training Manuals for each Application / Module and submit the same to CET CELL for review and approval. The Training Manuals etc. shall be provided in English Hindi and Marathi
2) SI shall prepare Online Training Module for the applications. Online training modules shall contain audio visual content to guide trainees in operating the web portal shall available in English, Hindi and Marathi. It shall be accessible to all the users of department based on their requirement on the web portal
3) SI is required to prepare training material for participants of every type of training which is to be delivered (mentioned below)
4) SI shall update the Training Manuals, procedures manual, deployment/installation guides etc. to reflect the latest changes to the solutions implemented.
5) SI shall obtain approval of CET CELL on the Training content at least 1 week before delivery of the Training program
6) Hard copy of Training material to be provided to the participants during the Training session while soft copy is to be uploaded in the CET CELL portal
7) SI would be required to provide training videos / Computer Based Training (‘CBT’) material to CET CELL which can later on be used by CET CELL to train other trainees on its own

C. Training Delivery
1) SI shall ensure necessary environment setup, data creation to conduct end user training. CET CELL shall provide the necessary infrastructure such as training classrooms to conduct the end user training. The training environment shall be used for conducting the training sessions
2) Training center would be at CET CELL Head Office, Mumbai or any other place decided by CET CELL
3) Based on the identified education and training needs, SI shall provide efficient delivery mechanisms and trainers. SI shall appoint trainers and organize training sessions on a timely basis and ensure that the attendance and performance evaluations are recorded

D. Orientation Session for External Stakeholders
1) SI would be required to plan for the orientation session for the external stakeholders to give them detailed description of the application and its advantages
2) SI needs to plan for the orientation sessions in conjunction with the CET Cell personnel.

E. Periodical Workshops & Trainings
1) Every time the Application undergoes a significant change (addition of new module, new process etc.), the SI will be required to train all staff affected by the change. For all enhancements/ amendments made to the application (major / minor), the SI will be required to provide the updated /revised user manual and online help to all users affected by the change
2) Such training will have to be conducted at least by the time such a change goes live
3) Such training will have to be conducted at all relevant departmental locations

3.6.14 Software Application Maintenance as per Requirement Mentioned Above-
1) The objective of application maintenance is to provide application maintenance and support services,
including request-based services (problem requests / defect fixes), enhancements, configuration management and post release support. As part of these services, SI shall provide support for bug fixes, enhancements, operational support, and assistance to CET CELL.

2) SI shall be required to undertake the Application maintenance and Support services

3) SI shall commit to provide all necessary resources and expertise to resolve any issues and carry out required changes, optimizations and modification so that complete system as a whole works according to the specified requirements and satisfaction of CET CELL, at no additional cost

4) SI shall ensure that the entire solution as a whole is operational and run according to stipulated performance standards

5) SI shall ensure efficient knowledge transfer on a continuous basis so as to ensure that application knowledge is passed on to new members subsequently joining the team.

### 3.6.15 Administration of Database, System & Network

1) SI shall provide an appropriate functional and technical training to CET CELL personnel in the areas of Administration of Database and System.

2) SI shall assign onsite support to diagnose, troubleshoot and resolve issues with the equipment / components supplied. The engineer shall possess capability for supporting the equipment and components proposed, but not limited to undertaking preventive and break-fix maintenance, troubleshooting, resolving problems, tuning, etc.

3) SI shall be required to assist CET CELL personnel in performing periodic health check of the systems, troubleshooting problems, analyzing and implementing rectification measures

4) SI will be responsible for not only the new systems provided as part of this tender but also ensuring the upkeep of existing systems that might be reused and also incorporate necessary changes for new applications, if any, during the tenure of the contract. The SI shall deploy Data-Centre Support team. The Support Coverage would be 24 x 7 x 365

5) On an ongoing basis, SI is responsible for troubleshooting issues in the infrastructure, network and application of CET CELL to determine the areas where fixes are required and ensuring resolution of the same

6) SI shall be responsible for identification, diagnosis and resolution of problem areas pertaining to the central infrastructure and application and maintaining assured SLA levels

7) SI shall be required to assist CET CELL personnel in managing the usernames, roles and passwords of all the relevant systems, including, but not limited to servers, applications, devices, etc. SI may be required to assist CET CELL personnel in the management of passwords for all relevant components and devices under their purview and implement a password change mechanism in accordance with the security policy of CET CELL. User account management includes and is not limited to:
   a. Setting up new user account
   b. Granting access and review
   c. Removal of user accounts
   d. Privilege management
e. Password management
f. Access to OS, databases and applications
g. Monitoring access and usage
h. Logging
i. Session time-out

8) SI shall be responsible for the synchronization of system clocks and automatic lockout of the terminal after defined inactivity time.

9) SI shall be responsible for maintenance of logs of user Internet activity, failed login attempts, etc.

10) SI shall be required to assist CET CELL personnel for downloading of patches and updates for OS, Anti-virus, firewalls, IPS, IDS, RDBMS and other systems using a two-step procedure. In the first step, patches and updates shall be downloaded to a standalone system. In the second step, the patches and updates shall be updated to the relevant systems.

11) SI shall make provision dedicated team consisting of Solution Architect, Network Administrator and Database Administrator

12) System Administration
   a. System administration services for management of server environment to maintain performance at optimum levels.
   b. Proper configuration of server parameters, operating systems administration and tuning. SI would be the single point of accountability for all hardware maintenance and support central infrastructure
   c. Operating system administration, including but not limited to management of users, processes, resource contention, preventive maintenance and management of upgrades including migration to higher versions and patches to ensure that the system is properly updated. SI is also responsible for re-installation in the event of system crash/failures
   d. Regular monitoring and maintenance of a log of the performance monitoring of servers including but not limited to monitoring CPU, disk space, memory utilization, I/O utilization, etc. SI shall also ensure that the bottlenecks in the infrastructure are identified and fine tuning is done for optimal performance
   e. Regular analysis of events and logs generated in all the sub systems including but not limited to servers, operating systems, databases, applications, security devices, messaging, etc. SI shall undertake actions in accordance with the results of the log analysis. The system administrators shall also ensure that the logs are backed up and truncated at regular intervals
   f. Adopt a defined process for change and configuration management in the areas including, but not limited to, changes in parameter settings for application, servers, operating system, devices, applying patches, etc.
   g. Managing the trouble tickets, diagnosis of the problems, reporting, managing escalation, and ensuring rectification of server problems as defined in SLA.
A. Database Administration

1) SI shall train CET CELL personnel in the relevant areas and may be required to assist CET CELL personnel in performing the following tasks
   a. Management of database environment to maintain performance at optimum levels
   b. End-to-end management of database on an ongoing basis to ensure smooth functioning of the same
   c. Tasks including, but not limited to, managing changes to database schema, disk space, storage and user roles
   d. Conduct code and configuration reviews to provide inputs to CET CELL in order to improve the performance or resolve bottlenecks, if any
   e. Performance monitoring and tuning of the databases on a regular basis including preventive maintenance of the database as required
   f. Report backup status on a regular basis and ensure prompt problem resolution in case of failures in the backup processes
   g. Use of DBA tools to perform database creation, maintenance, and database monitoring related tasks.

B. Security Administration

1) SI shall train CET CELL personnel in the relevant areas and may be required to assist CET CELL personnel in performing the following tasks
   a. Management of security environment to maintain performance at optimum levels
   b. Address ongoing needs of security management including, but not limited to, monitoring of various devices / tools such as firewall, intrusion detection, content filtering and blocking, virus protection, and vulnerability protection through implementation of proper patches and rules
   c. Maintain an updated knowledge base of all the published security vulnerabilities and virus threats for related software and microcode, including, but not limited to, operating systems, application servers, web servers, databases, security solutions, messaging solutions, etc.
   d. Ensure that patches / workarounds for identified vulnerabilities shall be patched / blocked immediately
   e. Respond to security breaches or other security incidents and coordinate with respective OEM in case of a new threat is observed to ensure that workaround / patch is made available for the same
   f. Maintenance and management of security devices including but not limited to, maintaining firewall services to restrict network protocols and traffic, detecting intrusions or unauthorized access to networks, systems, services, applications or data, protecting email gateways, firewalls, servers, desktops from viruses
   g. Operating system hardening through appropriate configuration and patch updates on a
regular basis.

h. The financial obligations of conducting the task mentioned in a. to g. above in 3.6.15 will be the responsibility of the SI.

3.6.16 Security audit of code:

1) The SI shall conduct security audit of the code of the software’s along with audit of all the stages of CET & CAP process through CERT-In certified agency before Go live stage of the application

2) All the considerations mentioned during the audit shall be taken care for all future enhancements

3) Security audit shall be carried out in progressive format on half yearly basis

4) Security audit of the system will cover all the enhancements or updates made in the code during the period of consideration

5) The financial obligations of conducting the task mentioned in 1) to 4) above in 3.6.16 will be the responsibility of the SI.

3.6.17 Compliance with Industry Standards

1) While developing an application in response to this RFP, the SI shall adhere to all applicable policies and standards published by Government of India, which includes:

   a. Ministry of Electronics and Information Technology, Government of India as updated from time to time. The latest version of the standards may be found at https://egovstandards.gov.in

   b. National Informatics Corporation The latest version of the standards may be found at https://web.guidelines.gov.in/


   d. “Policy on Open Application Programming Interfaces (APIs) for Government of India” available at http://www.egazette.nic.in/WriteReadData/2015/164238.pdf

3.6.18 Acceptance Testing and Certification

1) The primary goal of Acceptance Testing and Certification is to ensure that the Project (including all the project components as discussed in the scope of work) meets requirements, standards, specifications and performance, by ensuring that the following are associated with clear, quantifiable metrics for accountability:

   a. Functional requirements Localization Compliance Review

   b. Security Manageability

   c. SLA Reporting System

   d. Project Documentation (Design, development, configuration, training and administration manuals etc)

   e. Data Quality Review

2) As part of Acceptance testing, performed through a third-party agency or by the purchaser itself,
Purchaser shall review all aspects of project development and implementation covering software, hardware and networking including the processes relating to the design of solution architecture, design of systems and sub-systems, coding, testing, business process description, documentation, version control, change management, security, service-oriented architecture, performance in relation to defined requirements, interoperability, scalability, availability and compliance with all the technical and functional requirements of the RFP and the agreement.

3) The procedures and parameters for testing will be laid down by the Purchaser or by the Third-Party Agency after approval from Purchaser; the solution deployed by the vendor has to satisfy third party acceptance testing upon which the system shall go-live, subject to Purchaser/Departmental approval.

4) The Department / Purchaser will establish appropriate processes for notifying the selected vendor of any shortcomings from defined requirements at the earliest instance after noticing the same to enable the selected vendor to take corrective action. All gaps identified shall be addressed by the vendor immediately prior to Go-live of the solution. It is the responsibility of the selected SI to take any corrective action required to remove all shortcomings, before the roll out of the project.

5) It is to be noted that the involvement of the third party for acceptance testing and certification, does not absolve the SI of his responsibilities to meet all SLAs as laid out in this RFP document.

6) Selected SI shall ensure that the applications (CET CELL web portal) shall comply with STQC and GIGW guidelines. CET CELL may appoint third party auditor for auditing the applications (including CET CELL website and CET CELL web portal) as per STQC and GIGW guidelines.

7) Selected SI shall obtain Safe to Host Certificate for the web portal from STQC/ Cert-IN empaneled agency.

8) All costs related to obtaining Safe to Host Certificate & GIGW Compliance Certificate for the web portal from STQC/ Cert-IN empaneled agency would be borne by SI.

9) It is to be noted that:
   a. Purchaser may get the solution audited through a Third Party before Go-Live and periodically after Go-Live in order to ensure the success of the project. Such third-party agency for carrying out the acceptance testing and certification of the entire solution will be nominated by the Department.
   b. Following discusses the acceptance criteria to be adopted for the project as mentioned above. The list below is indicative, and the activities will include but not be limited to the following:
      i. Functional Requirements Review: The solution developed/customized by selected SI shall be reviewed and verified by the agency against the Functional Requirements signed-off between the Purchaser and the selected SI. All gaps identified shall be addressed by the vendor immediately prior to Go-live of the solution. One of the key inputs for this testing shall be the traceability matrix to be developed by the vendor for the solution. Apart from Traceability Matrix, agency may develop its own testing plans for validation of compliance of system against the defined requirements. The acceptance testing w.r.t. the functional requirements shall be performed by
independent third party agency (external audit) as well as the select internal department users (User Acceptance Testing) and system has to satisfy both third party acceptance testing and internal user acceptance testing, upon which the system shall go-live. For conducting the User Acceptance Testing, Purchaser/ The Department shall identify the employees from respective divisions, who shall be responsible for day-to-day operations of the functions automated through the project. The system, during the functional requirements review, shall necessarily satisfy the user acceptance testing process

ii. Localization Compliance Review: A third party supports shall perform the Localization Compliance Review to verify the Application Multilingual Architecture Design with Input/Saved/Output Data as per Localization guidelines, i.e. UNICODE 6.0 standard

iii. Infrastructure Compliance Review: Third party agency shall perform the Infrastructure Compliance Review to verify the conformity of the Infrastructure (both IT, non IT as well as Network infrastructure) proposed by the selected SI against the requirements and specifications provided in the RFP and/or as proposed in the proposal submitted by the selected SI. Compliance review shall not absolve the vendor from ensuring that proposed infrastructure meets the SLA requirements. Any additional hardware proposed by the SI shall as specified in RFP or better without any cost escalations subject to following restrictions:
    1. OEM cannot be replaced;
    2. Product shall meet all functionalities listed in the RFP
    3. OEM must provide a representation that the new product is a newer version of the proposed product
    4. If COTS is used, then its version shall as specified or newer version

iv. Security Review: The software developed/customized shall be audited by the agency from a security and controls perspective. Such audit shall also include the IT infrastructure and network deployed for the project. Following are the broad activities to be performed by the Agency as part of Security Review. The security review shall subject the solution to the following activities

v. Audit of Network, Server and Application security mechanisms: Assessment of authentication mechanism provided in the application/components/modules Assessment of data encryption mechanisms implemented for the solution. Assessment of data access privileges, retention periods and archival mechanisms Server and Application security features incorporated etc. Application Security mechanisms shall accessed in compliance with the IT Act 2000, 2008 Amendment and IT rules 2011, such that it maintains data/information Integrity, Confidentiality, Non-repudiation. Audit of Security mechanisms so that they are in compliance with the

vi. Performance: Performance is another key requirement for the project and the agency shall review the performance of the deployed solution against certain key parameters defined in SLA. Such parameters include request-response time, workflow processing time, concurrent sessions supported by the system etc, Disaster Recovery drill etc. The performance review also includes verification of scalability provisioned in the solution for catering to the project requirements.

vii. Availability: The solution shall be designed to remove all single point failures. Appropriate redundancy shall be built into all the critical components to provide the ability to recover from failures. The agency shall perform various tests including network, server, security, DC/DR fail-over tests to verify the availability of the services in case of component/location failures. The agency shall also verify the availability of the project services to all the users in the defined locations.

viii. Manageability Review: The agency shall verify the manageability of the solution and its supporting infrastructure deployed using the Enterprise Management System (EMS) proposed by the selected SI. The manageability requirements include requirements such as remote monitoring, administration, configuration, inventory management, fault identification etc.

ix. SLA Reporting System: The selected SI shall design, implement/customize the Enterprise Management System (EMS) and shall develop any additional tools required to monitor the performance indicators listed as per the SLAs mentioned the RFP. The Acceptance Testing and Certification agency shall verify the accuracy and completeness of the information captured by the SLA monitoring system implemented by the vendor and shall certify the same. The EMS deployed for the project, based on SLAs, shall be configured by the selected SI to calculate the payment to be paid by the department after deducting the necessary penalties. The Bidder would ensure that the SLA monitoring tool is available to the Purchaser before Go-Live.

x. Project Documentation: The Agency shall review the project documents developed by the selected SI including requirements, design, source code, installation, training and administration manuals, version control etc. Any issues/gaps identified by the Agency, in any of the above areas, shall be addressed to the complete satisfaction of the Department.

xi. Data Quality: The Agency shall perform the Data Quality Assessment for the Data digitized by selected SI and the data migrated by the vendor to the new system. The errors/gaps identified during the Data Quality Assessment shall be addressed by the
vendor before moving the data into production environment, which is a key milestone for Go-live of the solution.

3.6.19 Cloud Requirements

1) The bidder shall analyze the Application requirements and identify the server-side hardware infrastructure required for the project. Based on the sizing, successful bidder must take the cloud services from GoM / GOI cloud service providers along with DR requirements

2) Bidder shall ensure that all the rules applicable to empanelment of Cloud Service Provider (CSP) are taken care of. Services shall opted from the below:
   a. CSP shall empaneled under MeitY’s “Provisional Empanelment of Cloud Service Offerings of Cloud Service providers (CSPs)”

3) The hardware equipment and their corresponding specifications proposed by the bidder shall take into consideration the requirement of the software application, number of users, performance parameters and system security. Bidder shall scale up infrastructure requirement whenever required to meet the performance of the application at no extra cost to Government of Maharashtra. The hardware requirements can further be categorized as:
   a. Server Requirement
   b. Packaged Software License requirement

4) The computing resources and storage on cloud must be such that CET CELL will not have restrictions on software application solutions. The successful bidder shall provide the application, web and database servers for hosting e-Procurement Application based on the software to be implemented and performance and security requirement as mentioned in the section on SLAs
### 3.7 Project Timelines for CET

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<th>#</th>
<th>Milestone</th>
<th>Expected Timeline</th>
<th>Deliverable</th>
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<tbody>
<tr>
<td>1</td>
<td>Submission of project plan, and other documents like:</td>
<td>T+1 Weeks</td>
<td>Project Charter, Exit Plan and SRS</td>
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<td>1- Execution Plan,</td>
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<td>2- Exit management plan</td>
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<td>3- FRS and SRS</td>
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<td>2</td>
<td>Development / Customization of Application online CET Application form</td>
<td>T+2 Weeks</td>
<td>Development of new application / Customization of Existing</td>
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<td>for CBT, Hall ticket, Grievance redressal, objection for QP and score card</td>
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<td>application</td>
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<td>3</td>
<td>UAT of Application, Security Audit and Go Live</td>
<td>T+2 Weeks</td>
<td>User acceptance testing of the developed application</td>
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<tr>
<td>4</td>
<td>Training</td>
<td>T+2 Weeks</td>
<td>Training to Staff of CET CELL Mumbai.</td>
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<td>5</td>
<td>Production Support</td>
<td>Till project duration</td>
<td>Technical Resolution of queries</td>
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<td>Conduction of Exams</td>
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<td>Supporting the department in RTI and court cases</td>
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Where T is the effective date of LoI issuance.
Schedule will be discussed with SI and will be finalized by CET CELL.
PART B: CAP

4 Scope of Work

4.1 Broad Scope of the Work for CAP Application

1) Development and Deployment (including implementation & testing) and maintenance of a comprehensive web and mobile-based software solution to meet the various requirements of the Department: CET CELL & ARA for On Line Admission Process and Admission Verification

2) Solution shall be deployed / hosted in secured cloud environment of agencies empaneled under Government of India or through GeM

3) Migration of data within departmental applications in case of exigency if any.

4) Setting up operational management and maintenance of Helpdesk, E-mail, Business WhatsApp services to resolve queries regarding CAP processes, services of the department etc. as well as internal user queries regarding the IT infrastructure, Application testing, trouble shooting and error resolution etc.

5) Compliance to the Information Security Policy laid down by GoM and GoI

6) Security Audit of the Application through Computer Emergency Response Team CERT-In by the empaneled agencies

7) Preparation of Training Plan, Training Material & Delivery of Training to Departmental Staff, Colleges/Institutes and any other stakeholder participating in the CAP processes

8) Integration of CET & CAP data through API

9) IT Disaster Recovery (DR) Plan with facility to reduce recovery Time and Cost

The scope of the work and broad level activities for CAP are the following:

4.2 Activities to be performed for CAP (including following but not limited to)

- Publishing CAP Information Brochure
- Publishing Schedule of CAP
- Updating CAP portal with Government Resolutions and Notifications
- Registration of Colleges/Institutes (where required)
- Department-wise Seat Matrix for the courses as illustrated in approved course wise Information Brochure
- Registration for CAP (CET qualified (MS/OMS/JK) + NRI/OCI/PIO/CWG/FNS)
- Integration of CET Data received from various apex bodies and CET CELL with CAP Application
- E-Scrutiny of applications and certificates by FC ARC institute
- Filling of option form
- Conducting on line rounds as per the provisions in admission rules and the CAP Information Brochure
- Allotment of seats as per rounds and round logic based on rules of Admission
- Seat allotment as per allotment rules of the Department
- Confirmation of Admission at college level
- Payment Gateway integration on for CAP to collect Category change Fee, Seat Acceptance Fee and CAP Registration Fee where CET is not conducted by CET CELL
- Dynamic Reports and dashboard. For Institutes and Candidates with Administrative log in for Directorate, CET coordinator, CET CELL and ARA

The CET CELL intends to have single platform which would manage all the above-mentioned activities and any other activities as and when required by the CET CELL.
4.3 CAP Centralized admission process

1. **Registration for CAP for all:**
   a. **Candidate Registration:** Candidates are allotted a unique application ID and password to access the CAP Portal
   b. **Candidate Application Form:** After login, the application form is displayed. Applicant fills the application form, uploads documents and is redirected to payment gateway for payment of fees like application fees, category change fees, Seat acceptance fees
   c. **College Registration on CAP Portal:** Colleges registers on CAP portal with their respective credentials and application form as authorized by the Admin (college form contains fields like intake, NRI intake, etc.). Directorate approves the colleges and its filled details.

2. **Scrutiny of applications and certificates through Facilitation Centers (FC) at the participating institute/college:**
   a. The list of applicants who have successfully filled the application form and paid fees are visible to facilitation centers in their respective logins.
   b. Facilitation center conducts scrutiny of documents uploaded by the applicant. If all the details are found out to be correct, application is approved. If some ambiguity is found, application is kept on hold. Reason for keeping on hold is updated in the system.
   c. Cost of Physical and / or Online document verification and scrutiny shall be borne by SI.
   d. **Provisional Merit List:** Provisional merit list of all the approved candidates is generated and published on the portal.
   e. **Grievance Management:**
      - Post publishing of provisional merit list, candidates are given grievance period of usually 2-3 days. Candidates can raise their grievance, if any during this period
      - During the grievance period, the applications which are on hold / whose grievance is accepted can update application form and upload corrected documents
      - The status of acceptance/rejection of Grievance raised by candidate is available in candidate’s login along with latest receipt cum acknowledgement.
      - Documents uploaded by the candidate and remarks of FC/Scrutiny Team shall visible in the same screen without navigation and need for enlargement
   f. **Final merit list:** Once the grievance period is finished final merit list is published on the portal and is also available in applicant logins.

3. **Filling option form:** Candidate fills the preferences / choice of colleges with reference to type of college/Institute and Medium of Institute where required as per courses to which he/she intends to apply and as per the course wise rules of admissions.

4. **Conducting rounds for CAP:**
   a. **Round 1 – Shortlist & Clearing:** Available seats are published on the portal. Applicants who are approved are part of final merit list. Applicant fills and confirms the option form through his login.
   b. **Allotment of CAP Round-I**
      a. Candidate shall be able to verify the seat allotment made to him/her in the CAP Round I/II etc along with the facility to logically deduce from the College-wise allocation list reason for Non-Allocation.
      b. Candidates who have been allotted the seat as per their first preference in Round I has to take that seat mandatorily. System will freeze the preferences and applicant pays the seat acceptance fee from his/her login to confirm the seat. Such candidate will not be allowed to participate in further rounds
      c. Candidates who have been allotted other than first preference and want betterment in the subsequent rounds must claim the allotted seat in Round I by accepting that seat and choosing
“Not Freeze” option for betterment of seat. Candidate pays the seat acceptance fee through their login by online mode

c. **Round 2 Shortlist & Clearing:** The seats available for Rounds II are published on the website. Candidate eligible for round II can update or keep the preference/options updated in round one.
d. If the applicant gets 1 preference in subsequent rounds than he/she will have to mandatorily opt for the allocation and will not be allowed for betterment of seat in following rounds. System will auto freeze his

e. Similarly, for other than first preference, applicant can further apply for betterment by reserving the seat

**The descriptions of number and manner of conducting round is illustrative only.** The CET CELL may direct changes in the round pattern as per provision in admission rules of the respective course.

5. **Seat allotment:** Seats will be allotted as per the norms/ rules defined or stated by the government like availability of seats, merit, reservations etc.

6. **Seat matrix:**
   Seat Matrix defined by CET CELL as per government rules. College updates the seat matrix as per the rules which is further approved by College governing authority i.e. seat matrix of the various courses will be approved by the respective directorates/experts

7. **Confirmation of Admission at college level:**
   College staff click on admit or reject applicant after scrutinizing the originals document of applicant whenever he/she reports for admission

8. **Updation of the vacancies** at the end of the respective round

### 4.3.1 Admin Rights, Roles and Responsibilities

1. CET CELL will have a dedicated admin interface to be developed
2. CET CELL will be assigned Super Admin rights
3. Admin rights will have facility to assign representatives of independent department. These users will have entire access to CET and CAP data of their respective departments
   - Directorate of Technical Education (DTE)
   - Directorate of Higher Education (DHE)
   - Directorate of Medical Education and Research (DMER)
   - Directorate of Ayush Education
   - Maharashtra Council of Agriculture Education and Research (MCAER)
   - Directorate of Arts (DOA)
4. Super admin will have facility to add/onboard departments / directorates as and when required.
5. Super admin to provide/revoke roles and responsibilities in the system
6. Super admin to provide access control to users across all levels
7. Super admin will have access to all the forms, reports and data in the system
8. Super admin will have access to system logs of all users
### 4.3.2 Indicative Roles and responsibility of various users (for CAP)

<table>
<thead>
<tr>
<th>Sr No</th>
<th>Actor/Users</th>
<th>Activity</th>
</tr>
</thead>
</table>
| 1     | Applicant   | View provisional merit list  
|       |             | View Final Merit list  
|       |             | Application for CAP (After clearing CET)  
|       |             | Upload documents  
|       |             | Filling preference form  
|       |             | View allocation as per rounds  
|       |             | Application of Betterment  
|       |             | Freezing allocation  
|       |             | Admission Guidance  
| 2     | CET CELL Various users(Admin) | Publish provisional merit list  
|       |             | Publish final merit list  
|       |             | Publish Schedules of CAP  
|       |             | Scrutiny of uploaded verified documents  
|       |             | Approval of Colleges by respective directorates  
|       |             | Allow applicant to fill preference forms  
|       |             | Conduction of rounds  
|       |             | Publish institute/college wise allocation of seats after each round  
|       |             | Display of allocation of seat to individual candidate  
|       |             | Grievance Redressal  
| 3     | ARA         | Document Scrutiny of Admitted candidates/Candidates  
|       |             | Grievance Redressal  
|       |             | Report Generation as per format approved by Directorates and ARA  
|       |             | Approval to verified candidates  
|       |             | Rejection of discrepancy candidates and colleges  
|       |             | Payment Gateway for ARA processing fees / Penalty  
| 4     | Facilitation Center | Scrutiny of Application forms and documents.  
|       |             | Counselling of candidates regarding various processes involved in admission  
| 4A    | Facilitation/Scrutiny Center for NRI/OCI/PIO/FNS Candidates | Scrutiny of Application forms and documents. Counselling of specified candidates regarding various processes involved in admission  
| 5     | Super Administrator (CET CELL) | Counselling of candidates regarding various processes involved in admission  
|       |             | Add/Update/Delete Users  
|       |             | Add/Update/Delete masters (caste, category, district, taluka etc.)  
|       |             | Configuration of seat matrix  
|       |             | Recovery of lost credentials  
|       |             | Update data of applicant as per applicant request.  
|       |             | Access to entire system data  
| 6     | System Integrators | Understanding requirements (Web and mobile)  
|       |             | Preparing understanding documents along with use cases  
|       |             | Development/Customization of application (as per department requirements).  
|       |             | Integration of Payment Gateway  
|       |             | Testing of application  
|       |             | Conducting user acceptance testing  
|       |             | Security audit of application  
|       |             | Application Hosting (Cloud environment)  

Activities mentioned above are indicative. The department has right to include any additional activity based on scope of work mentioned in this RFP.

### 4.4 Application Requirements

1) The broad level requirements are given in this section while the detailed requirement course/subject wise is given in the Annexure 8.

2) The application must comply to the security standards and guidelines issued by GoI and GoM from time to time.

3) The application shall primarily be available for display in English, Hindi and Marathi. shall have compatible versions for MS/OMS/NRI/OCl/PIO/FNS Candidates

4) The application shall be available 24 hours a day, 7 days a week, and accessible from anywhere in the world via the internet. While the technology shall be available round the clock, functional support might be available only during the normal working day i.e. CET CELL working hours.

5) The application can be accessed via a variety of established channels, including individual users, through PCs, smartphones etc.

6) A user shall be able to fill the form electronically through internet and save/submit his/her application electronically. There shall be an option to electronically sign the application via Aadhaar e-sign.

7) A user shall be able to track the status of his/her application / request at any point in time.

8) Operation and Maintenance of the application including bug-fixes and problems, shall start from the date of signing the contract till 1 year.

9) The application to be agile enough to cater to any last-minute change due to change in rule or government orders.

10) The selected agency to ensure all compliances and customization to rules and guidelines without any additional cost to the department.

#### 4.4.1 Content Management System

1) The CMS shall be capable of uploading pictures, videos, brochures, information docket and other material for generating interest.

2) Browser independence and compatibility i.e. all functions of portal shall work on all the browsers, (on desktops, laptops, mobiles & other handheld devices) without being technology or platform dependent.

3) If during content page creation, the content creator wants to embed the same content in third party website/portal, the proposed CMS shall support this functionality.

4) The CMS must have capability to cache the whole page to meet high traffic requirements.

5) Portal shall have dedicated admin panel which will have access to each and every functionality of the portal.
4.4.2 Mobile Application Requirements

CET CELL wants to make key business processes available to its stakeholders via a one stop mobile app for smartphones and tablets. The mobile application shall be supportive on Android and iOS devices.

1) Functional Requirements
   1. New user (for e.g. departments, candidates, colleges etc.) registration (includes payment gateway integration)
   2. Password reset (includes approval and payment gateway integration)
   3. Application status check across various business processes
   4. Push notifications (broadcast messages to stakeholders)
   5. The user shall be able to capture & attach attachments from device to the application record including photos
   6. User may be asked for e-signature or Aadhaar linked digital signatures on forms within the mobile application
   7. User shall be able to create grievances via the mobile application and shall able to check status of the request
   8. Application shall be capable to record QR code-based attendance at center venue

2) Technical Requirements
   1. The SI shall make use of API integration services to connect the mobile application to backend systems
   2. The mobile application shall authorize and authenticate the user via Single Sign On and two-factor authentication

3) General Requirements
   1. The SI shall provide support and maintenance of the solution deployed at CET CELL for the full period of the contract

4.4.3 Centralized Application (Web Portal)

The Centralized Application to serve as the backend application for all the stakeholders to receive and process the information / applications received from the front end. The centralized application shall provide the following functionality:

1) Centralized Data Repository
   1. The submitted data along with the required attachments are stored in designated specific data stores
   2. The internal stakeholders at CET CELL can access the central application by providing their access credentials
   3. The compartmentalized central database will provide for the required role-based access control mechanisms to ensure that departmental data remains secure
   4. The platform shall provide capability of creating clones / multiple copies of already configured application and allow making changes to the copied version to achieve multiple variants of the applications without redevelopment from scratch
   5. The platform shall provide CET CELL a registration interface specific to candidates (after clearing CAP with final college/course choice) for ease of admission and a ready repository of all admitted candidates for CET CELL’s record keeping

2) User Authentication & Role based access control
   1. The portal shall have role-based authentication for accessing various functionalities of different modules with encrypted passwords. Access Rights can be given to Individual Users or Groups
   2. The portal shall have the flexibility to define distinct role and designation for the users
   3. The portal shall have the capability for providing user rights to various forms to create new
4.4.4 MIS Reporting

1) The MIS reporting system shall provide reports and slicing and dicing of information related to candidates, departments, admissions, etc.

2) It shall provide quick graphical outputs based on the ad hoc queries raised

3) Reporting of details related to the applications received and processed shall be generated from the Central Application

4) Scheduling of important reports shall be provided

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5. System shall have feature of user initiated ad hoc (on demand) reports
6. System shall allow the internal users to enter query parameters/filters, which are then used to select and retrieve only the data that meet the specified criteria
7. System shall have provision to print and export the report generated in the pre-defined file formats (e.g. spreadsheets, word processing, etc. as per desktop office solution)
8. System shall provide 360-degree dashboard for key data points related to all stakeholders

4.4.5 Information Security Infrastructure

1. SI shall design the security infrastructure and accessories as required for the proposed solutions that would be deployed at CET CELL
2. The following provides guidelines principles to assist SI to design the security requirements:
   a) The external users will be accessing the e-Services and related application features. The traffic of external users will be routed through security devices such as Firewalls and IPS. The users will be authenticated through log-in credentials and digital certificates, if available,
   b) CET CELL users on Intranet will be routed to the core business applications through Application Proxy Firewall and authenticated using their log-in credentials
3. SI shall include all the components that are required to make the proposed solution complete
4. Procurement of digital certificates will be done by CET CELL, as & when required
5. SI will be responsible for drafting the information security policies & procedures for CET CELL & will adhere to the same during the term of the contract

4.4.6 SMS & E-mail Service

1. CET CELL would send intimation to the Candidate / User Department through SMS, E-mail and Business WhatsApp to the registered mobile number and E-mail id
2. Illustratively following intimations would be sent through SMS as well as E-mail:
   a) Registration / Amendment / Cancellation confirmation
   b) Confirmation of any payment made
   c) Any news / update
3. Candidate / User Department shall also be able to retrieve the information from email and/or SMS Gateway
4. Log of all the SMS and emails sent to the Candidate / User Department shall be maintained by the system. Also, the system shall be able to track the SMS / e-mail delivery, read, opened bounce back status. The system shall be able to send the right format of messages according to the target devices e.g. smartphones, feature phone etc.
5. SI shall keep ready the SMS templates of text to be sent to the candidates whenever required. It shall also be approved by CET CELL
6. SI shall provide capabilities to send the SMS to the SMS Gateway with prior TRAI approval and submit the logs of SMS sent
7. If APIs are being used, it shall be tested and secured against vulnerabilities and security flaws.
8. SI shall provide secured Bulk Email / SMS service. More than one lakh emails / SMS are expected to be sent per month on an average. Emails can also have attachment. Attachment size on an average is 1 MB, not exceeding 5 MB.
9. Procurement and integration required for Bulk Email service / SMS service shall be done by SI. SI is also responsible for supporting the day to day Bulk email / SMS sending activities.
10. Payment/Cost related to the Bulk Email service / Bulk SMS service will be borne by SI
4.4.7 Payment Gateway

1. SI is expected to procure and enable Payment Gateway including a secure site page using industry-standard encryption technologies like Secure Socket Layers (SSL) to handle the backend communications and transactions, contacting the bank and reporting back on the results.
2. Payment gateway would enable payment receipts for various payments like registration fees, application fees etc. The payment gateway would enable the collection of these receipts and credit the same to CET CELL bank account.
3. All such receipts shall be credited to CET CELL account not later than T+1 Day. The details of CET CELL account shall be shared with the successful SI at the time of integration.
4. Payment gateway shall also provide facility to refund the payments to the Candidate / User Department’s bank account in case of duplicate payment by the same candidate as per CET CELL instructions.
5. Payment gateway provider should be able to provide CET CELL an MIS to facilitate reconciliation on daily, weekly and Monthly basis course wise. A user-friendly console must be shared or incorporated in the main application. The MIS shall clearly state:
   a) Name of Candidate / User Department from where money is received
   b) Money received towards (registration fees, application fees etc.)
   c) Amount received and date
   d) Other information as communicated by CET CELL.
6. All necessary costs for integrating & operating the payment gateway to be borne by the SI.

4.4.8 Handholding Post implementation

SI is expected to assist in conducting the operational activities and provide hand-holding resources for CET CELL personnel at CET CELL Head Office for a period of 1 year after successful implementation of the system. Some of the indicative tasks identified are given below:
1. Sensitization towards the new system, the initiative underway, roadmap for the project, the impact and benefits envisaged etc.
2. This training is suggested for all functionaries of CET CELL who have a major role to play. This training would cover:
   a) User training for the newly developed system for the key users in CET CELL Head office
   b) User training for redesigned processes, if any
   c) Hands on training on usage of different modules/ functions of the system
   d) Training to Associated departments
   e) Training to Institutes/Colleges
3. Overall guidance and continuous training on use of the application including software and hardware.
4. SI shall provide handholding personnel at Purchaser office location. These resources will be deployed for duration as agreed with CET CELL in consecutive discussions.
4.4.9 Website Update & Maintenance

1. The SI shall be responsible for update and maintaining the current CET CELL website which handles both information and transactional services of the CET CELL
2. GIGW compliance shall be taken care of
3. Security audit of the website shall be done by SI
4. The website will have multi-lingual support (in English, Marathi and Hindi language)
5. Language translation of website content will be done by SI, CET CELL will help in moderation of the converted content
6. The website shall host electronics forms of department services provided by CET CELL stakeholders
7. As part of website Support and Maintenance the SI shall be responsible for making minor changes / updates to the website as and when requested by CET CELL.

4.4.10 Third Party Interfacing / API integration

1. Interfacing with other e-Governance initiatives in the Central Govt and State Govt is essential to optimize the overall ICT system across CET CELL.
2. The system will integrate with following external interfaces to provide effective service to the citizens
   a. Unique Identification Authority of India (UIDAI)
   b. Caste Certificate data
   c. Caste validity (Social Justice, Tribal, NT)
   d. University data
   e. SSC/HSC data
   f. CET Data
   g. Payment Gateway
   h. Apex Body data
   i. Any other required interface as and when proposed by CET CELL
3. Integration with external interfaces shall be in encrypted form. Only super user shall have access to highly confidential information.
4. CET CELL will facilitate the SI in accessing the above external interfaces.
5. All transaction charges (whether one-time or recurring) payable to owner entity/representative while interfacing with external interfaces would be borne by the SI

4.4.11 Project Planning & Monitoring

1) Finalize the Project Charter in order to determine and agree on the project expectations, ground rules, work plan, communication matrix, timelines, Quality Plan, Configuration Management Plan etc.
2) Project Quality Plan shall document specific process elements and the quality actions that the project intends to implement. This shall include the derivation of quality goals, standards followed, schedule of quality assurance activities in the project, defect control, correction and preventive methodology, handling process deviations.
3) Configuration Management Plan shall contain procedures to be implemented for managing the configuration of the software solution to be produced by the project. In this plan, SI shall identify configuration items, responsibilities of configuration controller, access restrictions, directory structure needed for configuration management, procedure for change control, method of tracking the status of configuration items, backup procedure, configuration audits, release management, archival procedure, procedure for version / revision numbering.
4) SI’s Project Manager shall prepare a detailed project plan (as part of the Project Charter) clearly specifying the tasks, the dependency among the tasks, the duration to perform the tasks, the resources allocated to perform the tasks, the scheduled start and finish dates for the task. This project plan shall
also clearly mention the various project milestones and project deliverable schedules. The Project Manager shall also prepare a detailed register of project related risks with details such as Probability of Occurrence of the Risk Factor, Severity of the Risk Factor, Risk Rating, Risk mitigation plan, etc.

5) The detailed project plan shall internally be reviewed for completeness and correctness by SI and subsequently delivered to CET CELL for its review and acceptance. The mutually agreed Project Plan will form the basis for regular project monitoring.

6) SI shall revise the project plan to incorporate changes due to requirement changes, delay in approvals, etc., if any, and submit the revised project plan to CET CELL.

7) SI shall hold fortnightly review meetings with CET CELL providing detailed report on the progress of the project (Project Progress Report) clearly highlighting the activities completed in the reporting period, activities planned for the next reporting period, deviations from the planned dates, issues/concerns affecting the project progress, impact on the overall project timelines, project related risks with their mitigation plans.

8) SI shall monitor the quality of the solution being developed in line with the project quality plan. SI's Project Manager shall periodically review the performance of the project against defined quality goals and take necessary actions for any deviations.

9) SI shall ensure proper configuration management functions are being performed as per the configuration management plan. SI's Project Manager shall review the activities periodically.

10) SI's independent quality assurance team shall conduct regular reviews/audits of the project and ensure that the project adheres to the project plan documents.

4.4.12 Requirement Validation

1) SI shall understand the business processes and other related documents and seek clarifications from CET CELL, if any. SI shall then take a hand over of these documents from CET CELL.

2) If found necessary to modify the designed processes and other documents for successful implementation, the same shall be discussed and the relevant documents shall be modified development as and when required during the project implementation.

4.4.13 Software Development & Testing

1) SI shall carry out development and customization of all the proposed solutions from its own premises using its own infrastructure including but not limited to servers, storage, networking, software licenses, automated testing tools etc.

2) SI shall implement quality standards like minimum CMMI Level 3 and maximum CMMI Level 5 for the entire life cycle of the project. The quality process shall include adequate processes for coding, change management, defect tracking, testing, review and other software development life-cycle processes.

3) SI shall ensure that the solutions proposed be integrated based on open standards, ensure loose coupling and interoperability, preferably supporting SOA and Web Services principles.

4) As part of SDLC, SI shall set up only the Staging Environment.

5) SI shall carry out the software development/customization using a robust Application Development Framework/tool with the following features:
   a) shall offer consistent and end-to-end visual experience
   b) shall provide wizards and tools to simplify development, enable development & maintenance easier and faster and promote code reuse
   c) shall have features of drag and drop ease of use to enhance productivity of the development team and thereby reduce the development life cycle time
   d) shall ensure overall quality of the application being developed & maintained
   e) shall ensure consistent coding practices; preferably have an auditing feature to ensure adherence to
rules and metrics that define programming standards (promote readable and maintainable code)

f) shall be compatible with the target production environment

g) shall support rapid application development features such as Visual editor for HTML, XML, JSP, ASP, etc. pages to design application ‘web pages interactively, if required

h) Help developers see all their application sources in a uniform package organization and simplify the view of components to improve usability for large application projects

i) shall integrate with popular source control solutions such as Visual SourceSafe, PVCS, etc. if required

j) shall support Web 2.0, SOA, Web Services

6) SI shall independently identify the development methodology along with specifying the applications that would be based on business process management (‘BPM’) platform and the applications that would be based on the traditional software development methodologies.

7) Latest technology compliant with E-governance Standards to be used for development.

8) All deliverables whether draft or final shall delivered after due quality verification. In case any of the deliverables is found to be deficient in its contents, CET CELL shall have the right to summarily reject the deliverable and ask for the second draft of the same deliverable and the second draft document shall treated as a fresh delivery for approval.

9) Software Requirement Analysis and Specification

a) Software Requirement Analysis and specification is a key stage in the project and recognizing its pivotal role in the subsequent phases. Sufficient time will be provided to the SI to capture the requirements accurately.

b) SI shall understand the processes and other related documents and seek clarifications from CET CELL, if any. SI shall then take a hand over of these documents from CET CELL.

c) If found necessary to modify the designed processes and other documents for successful implementation, the same shall be discussed and the relevant documents shall be modified as and when required during the project implementation as greed by CET CELL.

d) SI shall interact with CET CELL project team to gather requirements. It is expected that SI gathers requirements through structured questionnaires, focused interviews with user groups.

e) On gathering the requirements, SI shall analyze these requirements to ensure the requirements are complete, accurate, consistent and unambiguous.

f) After the analysis, SI shall prepare software requirement specification (SRS) document. SRS shall contain the objectives and scope of the system, the various levels of requirements. Unresolved issues shall also be included in this document. User Role wise mapping to the various business functions with details regarding their access rights (insert / update / delete / view etc.) shall also be included in this document.

g) SI shall, as part of development of SRS, develop a system prototype to capture and demonstrate the end user requirements in the form of screens and outputs. The prototype shall be enhanced continuously during the development of SRS and SDD specifications.

h) The prototype shall have the user access management configured for a ‘control group’ of users of CET CELL wide during the time of SRS and prototype enhancement.

i) The Prototype shall also act as tool for preliminary orientation of the end users in familiarizing with the system that is being implemented. This is also to aid user training and changemanagement.

j) The SRS document shall be reviewed and approved by CET CELL

10) Software Design Specifications

a) In this phase, SI shall develop a logical view of the solution to meet the user requirements. This logical view shall consist - the functional architecture of the application and the changes / new database design. SI shall also define standards for coding, documentation, user interfaces, etc., if the same is not already defined.
b) SI shall document the high-level design as System Design Document (SDD) consisting of project standards, the functional design and the database design.

c) The SDD document shall be reviewed and approved by CET CELL.

11) Build Stage

a) SI shall break down the high-level design into modules and programs. For every program, an unit test plan shall be created. SI shall also identify common routines, programs, utilities and tools for productivity improvement.
b) In this phase, high level design document is the main input whereas the program specifications and unit test plans are the key outputs.
c) If data has to be migrated from some existing applications, then SI shall identify data migration programs that need to be developed and tested. Without them, programs for the current application cannot be tested properly, so it is important that SI shall develop and test them at the earliest.

12) Coding and Unit Testing

a) In this phase, the physical database design document, project standards, program specifications are the key inputs. The outputs for this phase include the test data, source code, executables and the unit test report.
b) During code, programmer shall translate the program specifications into the selected programming language to create source code and executables. SI shall ensure that the code is independently reviewed.
c) The programmer, who has developed the program, shall undertake unit testing using the unit test plan prepared during detailed design phase. The defects found in this testing shall be logged and the programmer shall remove the identified defects.
d) SI shall maintain all the unit test logs and defect statistics and provide the same to CET CELL, if desired.

13) Integration Planning & Testing

a) The inputs for this phase consist of high-level design documents and the unit tested programs. The outputs from this phase consist of integration test plan, and integration test report.
b) SI shall identify the critical modules to be integrated, identify order of integration and identify interfaces to be tested.
c) Along with planning for system integration, SI shall develop integration test cases and include these in integration test plan.
d) SI shall ensure that integration planning is done in parallel with the build phase.
e) Once the build phase is completed, SI shall undertake the actual integration activity as per the integration test plan. Subsequently, integration testing shall be carried out as per the plan, log all defects found and shall ensure these defects are rectified and retested.
f) SI shall maintain the integration test plan along with test results & defect statistics and provide the same to CET CELL, if desired so.

14) System Test Planning & Testing

a) SI shall plan out a series of different tests, each test having a different purpose, to verify that all system elements have been properly integrated, and that the system performs all its functions and satisfies all its non-functional requirements.
b) The inputs for this phase consist of the requirement specification document (SRS) and the initial system test plans whereas the outputs consist of system test plan and test results.
c) As part of system test planning, SI shall identify features that shall be tested and features that need not be tested.
d) On successful completion of the Integration testing, SI shall carry out the actual system testing as per the system test plan.
e) SI shall ensure that system testing is carried out by an independent team within SI other than the development team. SI shall setup a separate test environment with test database to carry out system testing.

f) As part of the system testing, SI shall carry out Performance testing of the application to ensure that the application meets the performance requirements identified in the SRS.

g) SI shall maintain the system test plan and test results with defect statistics and provide the same to CET CELL.

15) Performance and Load testing

a) As part of performance and load testing, the SI will be required to stimulate the testing environment using the appropriate tools in its own environment.

b) Under controlled environment, by applying pressure/stress on a system, response and speed of the system needs to be evaluated.

c) Entire functionality of the system needs to undergo load and performance testing before User Acceptance Testing and Go-Live.

d) SI shall deploy/use legally acquired appropriate testing tools to conduct performance and load testing.

e) SI shall maintain the test plan and test results with defect statistics and provide the same to CET CELL.

16) User Acceptance Testing

a) User Acceptance consists of formal testing conducted by the end user group according to the acceptance test plan and analysis of the test results to determine whether the system satisfies its acceptance criteria.

b) SI shall prepare a plan to coordinate the User Acceptance activity.

c) The UAT will include complete functional testing.

d) SI shall prepare a software release note.

e) The primary responsibility for acceptance testing lies with the end user group and CET CELL would coordinate with SI to ensure necessary support is available to the end user group.

f) End user group shall document the test cases/scenarios to ensure that the defined acceptance criteria are validated during the acceptance testing.

g) SI shall provide the necessary infrastructure like servers, storage, network connectivity, database licenses, development and run-time licenses for solutions proposed, etc. for the UAT environment. SI shall set up the test environment along with installation of the software and test data creation. SI shall be responsible for ensuring appropriate OS, Database versions and patches are installed on the respective servers in this environment. Any problems encountered during the installation shall be documented by SI and the installation manual shall be updated accordingly.

h) SI shall provide support to document the User Acceptance Test Results along with Defects Statistics. SI shall ensure that defects found are corrected and is retested by the end user group.

i) On successful completion of User Acceptance Testing, SI shall obtain a formal acceptance sign-off from CET CELL.

16) Implementation

SI, in coordination with CET CELL, shall prepare a detailed Implementation Plan that shall include activities such as User Training, Data Migration / Population and Application Rollout. SI shall also carry out activities to prepare documentations.

17) Documentation

a) SI shall develop course wise manuals such as User Manuals, Training Manuals, FAQ & Trouble Shooting Guide, etc. as agreed upon with CET CELL.

b) SI shall ensure that the documentation is in line with the defined documentation standards.

c) SI shall use tools for creation of Help documents, User manuals etc., that minimize the
documentation and change efforts.

4.4.14 Training & Change Management

1) Preparation of Training Plan
   a) SI would prepare the list of topics to be covered under various Training programs as part of training plan
   b) Get approval of CET CELL on the Final Training topics and plan and implement the approved training topics

2) Preparation of Training Material
   a) SI shall prepare the solution specific Training Manuals for each Application / Module and submit the same to CET CELL for review and approval. The Training Manuals etc. shall be provided in English, Hindi and Marathi.
   b) SI shall prepare Online Training Module for the applications. Online training modules shall contain audio visual content to guide trainees in operating the web portal and mobile application & shall be available in English, Hindi and Marathi. It shall be accessible to all the users of department based on their requirement on the web portal.
   c) SI is required to prepare Training material for participants of every type of Training which is to be delivered (mentioned below)
   d) SI shall update the Training Manuals, procedures manual, deployment/installation guides etc. to reflect the latest changes to the solutions implemented.
   e) SI shall obtain approval of CET CELL on the Training content at least 1 week before delivery of the Training program.
   f) Hard copy of Training material to be provided to the participants during the Training session while soft copy is to be uploaded in the CET CELL portal.
   g) SI would be required to provide training videos / material to CET CELL which can later on be used by CET CELL to train other trainees on its own.

3) Training Delivery
   a) SI shall ensure necessary environment setup, data creation to conduct end user training. CET CELL shall provide the necessary infrastructure such as training classrooms to conduct the end user training. The training environment shall be used for conducting the training sessions.
   b) Training center would be at CET CELL Head Office, Mumbai or any other place decided by CET CELL.
   c) Based on the identified education and training needs, SI shall provide efficient delivery mechanisms and trainers. SI shall appoint trainers and organize training sessions on a timely basis and ensure that the attendance and performance evaluations are recorded.

4) Orientation Session for External Stakeholders
   a) SI would be required to plan for the orientation session for the external stakeholders to give them detailed description of the application and its advantages.
   b) SI needs to plan for the orientation sessions in conjunction with the CET CELL personnel.

5) Report Generation
   a) Detailed report regarding each training session (for e.g. participants, attendance levels, date of training, location of training etc.) is to be maintained in the system. The same to be made accessible to the authorized officers within CET CELL.
   b) Exact Reporting formats will be decided and agreed upon by CET CELL with the selected SI.

6) Training Infrastructure
   a) All Training Equipment and accessories needed for the delivery of Training (e.g. projector, white board, stationery etc.) and other IT infrastructure and networks etc., as deemed necessary by the SI for delivery of training and achievement of the specified SLAs to be provisioned by the SI.
7) Other Arrangements
   a) SI will also be required to provision for any Travel / Boarding / Lodging arrangements for the Trainers, its own and supporting staff at no additional cost.

8) Periodical Workshops & Trainings
   a) Every time the Application undergoes a significant change (addition of new module, new process etc.), the SI will be required to train all staff affected by the change. For all enhancements/amendments made to the application (major / minor), the SI will be required to provide the updated/revised user manual and online help to all users affected by the change.
   b) Such training will have to be conducted at least by the time such a change goes live.
   c) Such training will have to be conducted at all relevant departmental locations.
   d) Periodical workshops for revising the course content of the trained staff members would be useful.

9) Reinforcement Training
   a) The SI is responsible for conducting training for existing and additional staff recruited by CET CELL on the on-going basis.

4.4.15 Software Application Maintenance
1) The objective of application maintenance is to provide application maintenance and support services, including request-based services (problem requests/defect fixes), enhancements, configuration management and post release support. As part of these services, SI shall provide support for bug fixes, enhancements, operational support, and assistance to CET CELL.

2) SI shall be required to undertake the Application maintenance and Support services.

3) SI shall commit to provide all necessary resources and expertise to resolve any issues and carry out required changes, optimizations and modification so that complete system as a whole works according to the specified requirements and satisfaction of CET CELL, at no additional cost

4) SI shall ensure that the entire solution as a whole is operational and run according to stipulated performance standards

5) SI shall ensure efficient knowledge transfer on a continuous basis so as to ensure that application knowledge is passed on to new members subsequently joining the team

6) The following sections explain the scope of each activity SI is expected to perform under application maintenance and support services for the period of contract.

7) End User Support:
   a) The end user support would include all activities related to resolving the bugs / defects reported by application users. Every bug / defect shall be logged. Every bug / defect shall be categorized on the severity levels.
   b) SI shall identify the solution and take necessary approvals from CET CELL and release the patch for UAT after fixing the defects.
   c) SI shall document defects / bugs encountered as well as document the resolution of the same. SI shall also update the Consolidated List of Common Errors and their Resolution document.
   d) SI activities would be monitored as per SLAs defined in this tender

8) Application enhancement / new development
   a) The application may require modifications or enhancements in the functionality. The enhancements or new development may also be required to fix some complex problem requests or defect fixes and upgrade the application performance.
   b) SI shall ensure that correct version of the application / program units is being considered to carry out application enhancements / new development.
   c) SI shall follow the configuration management plan for configuration management and version control using the version control software.
   d) SI shall support CET CELL in carrying out the UAT for the modifications / enhancements.
Configuration management and version control

a) As the application undergoes enhancements and modifications due to problem requests, defect fixes and change requests, it becomes increasingly important to keep the source code under version control and the system under configuration management.

b) With the objective of keeping track of the version updates in the application, SI shall adhere to the configuration management process defined in conjunction with CET CELL.

c) SI may be required to assist CET CELL personnel in ensuring that a copy of the production environment is backed up and stored in the repository before the new / modified components are copied to Production. SI may be required to assist CET CELL personnel in restoring the backed-up application versions for testing purpose mainly addressing the restorability of the media.

Release management

a) Release management procedure shall be defined in conjunction with CET CELL to ensure smooth transition of the application changes from release environment to production environment.

b) As part of the release management SI shall perform the following activities:
   i. SI shall group the related change requests, assess their development progress and accordingly prepare a schedule for their release.
   ii. SI shall in consultation with CET CELL prepare a detailed release plan for every release. This plan shall include the release number and date of release. It shall also contain details about the change request to be released.

Maintenance of post implementation support environment

a) SI shall provide an environment with the necessary infrastructure like servers, storage, network connectivity, database licenses, development and run-time licenses for solutions proposed, etc. to support post implementation activities such as debugging of problems reported, enhancements/developments, subsequent user acceptance, etc. SI shall responsible for ensuring appropriate OS, Database versions and patches are installed on the respective servers in this environment.

b) SI may be required to assist CET CELL personnel in ensuring proper backup of the environment.

MIS Reports

a) The following is an indicative list of MIS reports. The selected SI shall draw an exhaustive list of reports along with CET CELL. SI shall submit the reports on a regular basis in a mutually decided format. SI shall submit soft copy of each of the reports.

b) Monthly reports
   i) Feedback report from users for the services rendered
   ii) Consolidated SLA / non-conformance report
   iii) Log of preventive maintenance undertaken
   iv) Log of break-fix maintenance undertaken
   v) Bug / defect resolution reports including the analysis of bugs / defects resolved, pending, completion time, responsiveness, concern areas, etc.
   vi) Change Request Logs with their resolution status
4.4.16 AMC Administration

SI shall ensure availability of AMC support with all the OEMs. This AMC support period shall commence from the deployment of software (“Go-Live”) till the end of contract.

4.4.17 Administration of Database, System & Network

1) SI shall provide an appropriate functional and technical training to CET CELL personnel in the areas of Administration of Database and System.

2) SI shall assign onsite support to diagnose, troubleshoot and resolve issues with the equipment / components supplied. The engineer shall possess capability for supporting the equipment and components proposed, but not limited to undertaking preventive and break-fix maintenance, troubleshooting, resolving problems, tuning, etc.

3) SI may be required to assist CET CELL personnel in performing periodic health check of the systems, troubleshooting problems, analyzing and implementing rectification measures.

4) SI will be responsible for not only the new systems provided as part of this tender but also ensuring the upkeep of existing systems that might be reused and also incorporate necessary changes for new applications, if any, during the tenure of the contract. The SI shall deploy Data-Centre Support team. The Support Coverage shall be 12 x 7 x 365.

5) On an ongoing basis, SI is responsible for troubleshooting issues in the infrastructure, network and application of CET CELL to determine the areas where fixes are required and ensuring resolution of the same.

6) SI shall be responsible for identification, diagnosis and resolution of problem areas pertaining to the central infrastructure and application and maintaining assured SLA levels.

7) SI may be required to assist CET CELL personnel in managing the usernames, roles and passwords of all the relevant systems, including, but not limited to servers, applications, devices, etc. SI may be required to assist CET CELL personnel in the management of passwords for all relevant components and devices under their purview and implement a password change mechanism in accordance with the security policy of CET CELL. User account management includes and is not limited to:
   a) Setting up new user account
   b) Granting access and review
   c) Removal of user accounts
   d) Privilege management
   e) Password management
   f) Access to OS, databases and applications
   g) Monitoring access and usage
   h) Logging in
   i) Session time-out

8) SI shall be responsible for the synchronization of system clocks and automatic lockout of the terminal after defined inactivity time.

9) SI shall be responsible for maintenance of logs of user Internet activity, failed login attempts, etc.

10) SI may be required to assist CET CELL personnel for downloading of patches and updates for OS, Anti-virus, firewalls, IPS, IDS, RDBMS and other systems using a two-step procedure. In the first step, patches and updates shall be downloaded to a standalone system. In the second step, the patches and updates shall be updated to the relevant systems.

11) SI shall provision dedicated team consisting of Solution Architect, Network Administrator and Database Administrator

12) System Administration

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a) System administration services for management of server environment to maintain performance at optimum levels.
b) Proper configuration of server parameters, operating systems administration and tuning. SI would be the single point of accountability for all hardware maintenance and support central infrastructure.
c) Operating system administration, including but not limited to management of users, processes, resource contention, preventive maintenance and management of upgrades including migration to higher versions and patches to ensure that the system is properly updated. SI is also responsible for re-installation in the event of system crash/failures.
d) Regular monitoring and maintenance of a log of the performance monitoring of servers including but not limited to monitoring CPU, disk space, memory utilization, I/O utilization, etc. SI shall also ensure that the bottlenecks in the infrastructure are identified and fine tuning is done for optimal performance.
e) Regular analysis of events and logs generated in all the sub systems including but not limited to servers, operating systems, databases, applications, security devices, messaging, etc. SI shall undertake actions in accordance with the results of the log analysis. The system administrators shall also ensure that the logs are backed up and truncated at regular intervals.
f) Adopt a defined process for change and configuration management in the areas including but not limited to, changes in parameter settings for application, servers, operating system, devices, applying patches, etc.
g) Managing the trouble tickets, diagnosis of the problems, reporting, managing escalation, and ensuring rectification of server problems as defined in SLA.

13) Database Administration
SI shall train CET CELL personnel in the relevant areas and may be required to assist CET CELL personnel in performing the following tasks.

a) Management of database environment to maintain performance at optimum levels.
b) End-to-end management of database on an ongoing basis to ensure smooth functioning of the same.
c) Tasks including, but not limited to, managing changes to database schema, disk space, storage and user roles.
d) Conduct code and configuration reviews to provide inputs to CET CELL in order to improve the performance or resolve bottlenecks, if any.
e) Performance monitoring and tuning of the databases on a regular basis including preventive maintenance of the database as required.
f) Report backup status on a regular basis and ensure prompt problem resolution in case of failures in the backup processes.
g) Use of DBA tools to perform database creation, maintenance, and database monitoring related tasks.

14) Security Administration
SI shall train CET CELL personnel in the relevant areas and may be required to assist CET CELL personnel in performing the following tasks.

a) Management of security environment to maintain performance at optimum levels.
b) Address ongoing needs of security management including, but not limited to, monitoring of various devices/tools such as firewall, intrusion detection, content filtering and blocking, virus protection, and vulnerability protection through implementation of proper patches and rules.
c) Maintain an updated knowledge base of all the published security vulnerabilities and virus threats for related software and microcode, including, but not limited to, operating systems, application servers, web servers, databases, security solutions, messaging solutions, etc.
d) Ensure that patches/workarounds for identified vulnerabilities shall be patched/blocked immediately.
e) Respond to security breaches or other security incidents and coordinate with respective OEM in case of a new threat is observed to ensure that workaround/patch is made available for the same.

f) Maintenance and management of security devices including but not limited to, maintaining firewall services to restrict network protocols and traffic, detecting intrusions or unauthorized access to networks, systems, services, applications or data, protecting email gateways, firewalls, servers, desktops from viruses.

g) Operating system hardening through appropriate configuration and patch updates on a regular basis.

15) MIS Reports

a) The following is an indicative list of MIS reports. The selected SI shall draw an exhaustive list of reports along with CET CELL. SI shall submit the reports on a regular basis in a mutually decided format.

b) SI shall submit 2 hard copies and 1 soft copy of each of the reports.

c) Weekly reports

i) Log of backup and restoration undertaken.

ii) Summary of resource utilization of critical components

d) Fortnightly reports

i) Project Progress Report with schedule slippage details.

ii) Overall performance reports including the analysis of queries completed, queries pending, queries escalated, completion time, responsiveness, concern areas, etc.

iii) Summary of measured end user application response time for selected application.

e) Monthly reports

i) Summary of resource utilization of all components in the data centers.

ii) Log of preventive / break-fix maintenance undertaken.

iii) Summary of changes undertaken in all the data centers including major changes like configuration changes, release of patches, database reorganization, storage reorganization, etc. and minor changes like log truncation, volume expansion, user creation, user password reset, etc.

iv) Consolidated SLA / non-conformance report

f) Quarterly Reports

i) Summary of incidents reported like Application down, Components down, overall downtime, security vulnerabilities detected, hacker attacks / security threats, utilization, etc.

ii) Feedback report from users for the services rendered.

g) Incident Reporting (as and when it occurs)

i) Complete system down – with root cause analysis

ii) Peakings of resource utilization on any component

iii) Bottlenecks observed in the system and the possible solutions and workarounds.

h) Security Incident Reporting (as and when it occurs)

i) Detection of security vulnerability detection with the available solutions workarounds for fixing.

ii) Hacker attacks, Virus attacks, unauthorized access, security threats, etc. – with root cause analysis and plan to fix the problems.
4.4.18 Audit

Security audit of code: -
1) The SI shall conduct security audit of the code through CERT In certified agency initially before Go live of the application.
2) All the considerations mentioned during the audit shall be taken care for all future enhancements.
3) Security audit shall be carried out in progressive format as and when required.
4) Security audit of the system will cover all the enhancements or updates made in the code during the period of consideration.
5) Financial implications for security audit and any type of audit demanded by purchaser will be responsibility of SI.

Infrastructure Audit: -
1) SI shall conduct audit of the central infrastructure through the OEM on a half-yearly basis. The OEMs shall undertake audits of their respective infrastructure and certify that all necessary precautions have been undertaken. SI may conduct this audit himself, in which case, SI shall ensure that the audit conducted by him is certified by the respective OEM.
2) The audit shall ensure installation of proper versions of software including, but not limited to, Firmware, OS patches, any other layer of software, etc.
3) The SI shall undertake audit to determine the state of the resources, including, but not limited to overused resources, underused resources, etc.
4) The audit report shall make recommendations to the CET CELL through the audit report regarding issues including but not limited to upgrade of resources, reallocation of unused resources, etc.
5) The audit shall also cover obsolescence of resources as per policy defined by CET CELL. The audit report shall provide details of the resources that are due for obsolescence and provide a plan for upgrade / refresh of resources and plan for disposal of obsolete resources.
6) The SI shall ensure compliance of policy implementation including but not limited to backup policy, archival policy, security policy, etc. with the policy provisioned CET CELL and with the best practices followed in the industry.
7) The audit shall be certified by the respective OEM of the equipment assuring that the same is in proper condition. The audit report shall be complied and provided to CET CELL for consideration.
8) A half-yearly audit for the security practices, implementation of security policy and vulnerability assessment shall be conducted by a 3rd party appointed and paid for by the SI. The report of the 3rd party auditors shall rate the security implementation in three grades viz. Satisfactory, Requires Improvement and Unsatisfactory. SI shall provide necessary support and co-operation for the same.
9) A Quarterly Asset Audit, at all the locations shall be conducted to ensure the health of the system and verify the existence of assets. The report of findings shall be submitted to CET CELL for consideration.
10) A half-yearly audit for user satisfaction may be conducted by a 3rd party appointed and paid for by the SI. The report of the 3rd party auditors shall rate the user satisfaction in three grades viz. Satisfactory, Requires Improvement and Unsatisfactory. SI shall provide necessary support and co-operation for the same.
11) CET CELL may conduct audit of Service Level Agreement (SLA) at its discretion through a 3rd party auditor appointed by CET CELL. SI shall provide necessary support and co-operation for the same.
4.4.19 Compliance with Industry Standards

1) As per government guidelines, the choice of open source vs proprietary software is left to SI till the time it follows open standards
2) While developing an application in response to this RFP, the SI shall adhere to all applicable policies and standards published by Government of India, which includes:
   a) Ministry of Electronics and Information Technology, Government of India as updated from time to time. The latest version of the standards may be found at https://egovstandards.gov.in
   b) National Informatics Corporation The latest version of the standards may be found at https://web.guidelines.gov.in/
   d) “Policy on Open Application Programming Interfaces (APIs) for Government of India” available at http://www.egazette.nic.in/WriteReadData/2015/164238.pdf

4.4.20 Acceptance Testing and Certification

1) The primary goal of Acceptance Testing and Certification is to ensure that the Project (including all the project components as discussed in the scope of work) meets requirements, standards, specifications and performance, by ensuring that the following are associated with clear, quantifiable metrics for accountability:
   a) Functional requirements Localization Compliance Review
   b) Security Manageability
   c) SLA Reporting System
   d) Project Documentation (Design, development, configuration, training and administration manuals etc.)
   e) Data Quality Review
2) As part of Acceptance testing, performed through a third party agency or by the purchaser itself, Purchaser shall review all aspects of project development and implementation covering software, hardware and networking including the processes relating to the design of solution architecture, design of systems and sub-systems, coding, testing, business process description, documentation, version control, change management, security, service oriented architecture, performance in relation to defined requirements, interoperability, scalability, availability and compliance with all the technical and functional requirements of the RFP and the agreement.
3) The procedures and parameters for testing will be laid down by the Purchaser or by the Third-Party Agency after approval from Purchaser; the solution deployed by the vendor has to satisfy third party acceptance testing which the system shall go-live, subject to Purchaser/Departmental approval.
4) The Department / Purchaser will establish appropriate processes for notifying the selected vendor of any shortcomings from defined requirements at the earliest instance after noticing the same to enable the selected vendor to take corrective action. All gaps identified shall be addressed by the vendor immediately prior to Go-live of the solution. It is the responsibility of the selected SI to take any corrective action required to remove all shortcomings, before the roll out of the project.
5) It is to be noted that the involvement of the third party for acceptance testing and certification, does not absolve the SI of his responsibilities to meet all SLAs as laid out in this RFP document.
6) Selected SI shall ensure that the CAP portal shall comply with STQC and GIGW guidelines. CET CELL may appoint third party auditor for auditing the CAP portal as per STQC and GIGW guidelines.
7) Selected SI shall obtain Safe to Host Certificate for the web portal from STQC/ Cert-IN empaneled agency.
8) All costs related to obtaining Safe to Host Certificate & GIGW Compliance Certificate for the web portal from STQC/ Cert-IN empaneled agency would be borne by SI.
9) It is to be noted that:
   a) Purchaser may get the solution audited through a Third Party before Go-Live and periodically after
   Go-Live in order to ensure the success of the project. Such third-party agency for carrying out the
   acceptance testing and certification of the entire solution will be nominated by the Department.
   b) Following discusses the acceptance criteria to be adopted for the project as mentioned above. The list
   below is indicative, and the activities will include but not be limited to the following:
   1) Functional Requirements Review: The solution developed/customized by selected SI shall be
   reviewed and verified by the agency against the Functional Requirements signed-off between
   the Purchaser and the selected SI. All gaps identified shall be addressed by the vendor
   immediately prior to Go-live of the solution. One of the key inputs for this testing shall be the
   traceability matrix to be developed by the vendor for the solution. Apart from Traceability Matrix,
   agency may develop its own testing plans for validation of compliance of the system against the
   defined requirements. The acceptance testing w.r.t. the functional requirements shall be
   performed by independent third-party agency (external audit) as well as the select internal
   department users (User Acceptance Testing) and system has to satisfy both third party
   acceptance testing and internal user acceptance testing, upon which the system shall go-live.
   For conducting the User Acceptance Testing, Purchaser/ The Department shall identify the
   employees from respective divisions, who shall be responsible for day-to-day operations of the
   functions automated through the project. The system, during the functional requirements review,
   shall necessarily satisfy the user acceptance testing process.
   2) Localization Compliance Review: A third party supports shall perform the Localization
   Compliance Review to verify the Application Multilingual Architecture Design with
   Input/Saved/Output Data as per Localization guidelines, i.e. UNICODE 6.0 standard
   3) Infrastructure Compliance Review: Third party agency shall perform the Infrastructure
   Compliance Review to verify the conformity of the Infrastructure (both IT, non-IT as well as
   Network infrastructure) proposed by the selected SI against the requirements and specifications
   provided in the RFP and/or as proposed in the proposal submitted by the selected SI.
   Compliance review shall not absolve the vendor from ensuring that proposed infrastructure
   meets the SLA requirements. Any additional hardware proposed by the SI shall as specified in
   RFP or better without any cost escalation subject to following restrictions:
   (1) OEM cannot be replaced;
   (2) Product shall meet all functionalities listed in the RFP.
   (3) OEM must provide a representation that the new product is a newer version of the proposed
   product.
   (4) If COTS is used, then its version shall be as specified or newer version.
   4) Security Review: The software developed/customized shall be audited by the agency from a
   security and controls perspective. Such audit shall also include the IT infrastructure and network
   deployed for the project. Following are the broad activities to be performed by the Agency as
   part of Security Review. The security review shall subject the solution to the following activities.
   5) Audit of Network, Server and Application security mechanisms: Assessment of authentication
   mechanism provided in the application /components/modules
   Assessment of data encryption mechanisms implemented for the solution. Assessment of
   data access privileges, retention periods and archival mechanisms Server and Application
   security features incorporated etc. Application Security mechanisms shall be accessed in
   compliance with the IT Act 2000,2008 Amendment and IT rules 2011, such that it maintains
   data/information Integrity, Confidentiality, Non-repudiation. Audit of Security mechanisms so
   that they are following the latest Guidelines by Controller of Certifying authority (CCA), IT Act, ISO
   27001. Gap assessment of certain controls like say ISO 27001 and section 43, 47, 66, 69, 79, 84
and 87 of IT ACT amendment 2008 and decide how the sensitive data from a data centric stand point is to be protected.

6) Performance: Performance is another key requirement for the project and the agency shall review the performance of the deployed solution against certain key parameters defined in SLA. Such parameters include request-response time, workflow processing time, concurrent sessions supported by the system etc., Disaster Recovery drill etc. The performance review also includes verification of scalability provisioned in the solution for catering to the project requirements.

7) Availability: The solution shall be designed to remove all single point failures. Appropriate redundancy shall be built into all the critical components to provide the ability to recover from failures. The agency shall perform various tests including network, server, security, DC/DR fail-over tests to verify the availability of the services in case of component/location failures. The agency shall also verify the availability of the project services to all the users in the defined locations.

8) Manageability Review: The agency shall verify the manageability of the solution and its supporting infrastructure deployed using the Enterprise Management System (EMS) proposed by the selected SI. The manageability requirements include requirements such as remote monitoring, administration, configuration, inventory management, fault identification etc.

9) SLA Reporting System: The selected SI shall design, implement/customize the Enterprise Management System (EMS) and shall develop any additional tools required to monitor the performance indicators listed as per the SLAs mentioned in the RFP. The Acceptance Testing and Certification agency shall verify the accuracy and completeness of the information captured by the SLA monitoring system implemented by the vendor and shall certify the same. The EMS deployed for the project, based on SLAs, shall be configured by the selected SI to calculate the payment to be paid by the department after deducting the necessary penalties. The Bidder would ensure that the SLA monitoring tool is available to the Purchaser before Go-Live.

10) Project Documentation: The Agency shall review the project documents developed by the selected SI including requirements, design, source code, installation, training and administration manuals, version control etc. Any issues/gaps identified by the Agency, in any of the above areas, shall be addressed to the complete satisfaction of the Department.

11) Data Quality: The Agency shall perform the Data Quality Assessment for the Data digitized by selected SI and the data migrated by the vendor to the new system. The errors/gaps identified during the Data Quality Assessment shall be addressed by the vendor before moving the data into production environment, which is a key milestone for Go-live of the solution.

4.4.21 Cloud Requirements

The bidder shall analyze the Application requirements and identify the server-side hardware infrastructure required for the project. Based on the sizing, empaneled SI must take the cloud services from GOI cloud service providers along with DR requirements.

Bidder shall ensure that all the rules applicable to empanelment of Cloud Service Provider (CSP) are taken care of. Services shall be opted from the below: -

1. CSP shall empaneled under MeitY’s “Provisional Empanelment of Cloud Service Offerings of Cloud Service providers (CSPs)”

The hardware equipment and their corresponding specifications proposed by the bidder shall take into consideration the requirement of the software application, number of users, performance parameters and system security. Bidder shall scale up infrastructure requirement whenever required to meet the performance of the application at no extra cost to CET CELL. The hardware requirements can further be categorized as -

- Server Requirement
• Packaged Software License requirement

The computing resources and storage on cloud must be such that CET CELL will not have restrictions on software application solutions. The successful bidder shall provide the application, web and databaseservers for hosting its application based on the software to be implemented and performance and security requirement as mentioned in the section on SLAs.

4.5 Call Centre Services

a) Call centre services will act as a strong medium to gather public queries, concerns and opinion and provide guidance to beneficiaries in a systematic way.
b) This call centre will function as helpdesk, providing necessary information about admission process to candidates / parents/ colleges who dial toll free number from landline or mobile phones.
c) To assist candidates in getting information on nearby colleges registered in online admission portal
d) To guide candidates in filling option form during rounds

e) To register grievance against any college
f) SI shall provide per department wise minimum 2 numbers having more than 5 lines with 10 tele executives and submit log of calls completed on regular basis.

4.5.1 Setting-up of Call Centre

The broad scope of work has been mentioned below. Further details on each aspect of the all Centre setup has been mentioned in detail in the subsequent section.

a) Bidder would provide seating space for all the Call Centre Operators (CCOs) in their own premises.
b) Bidder would provide premises with all required hardware infrastructure like servers, desktop, computers, headphones, air conditioners, table, chair and power back through UPS/Inverter.
c) Bidder would provide premises with all required networks and networking equipment.
d) Bidder would provide regular basic trainings to CCOs for providing better services to client. Training documents to be shared with department.
e) Bidder shall use its own complaint portal for call logging, ticketing and emailing raised grievances to the concerned users.
f) Bidder will provide inbound call services to handle citizen grievances

g) Bidder will handle outbound calls related to feedback capture

h) Services will be provided in three languages – Marathi, Hindi and English

i) Call Centre Operator shall have thorough knowledge about online admission processes and services. Operator shall be trained in all departments to provide relevant information to citizen. They shall learn from online admission website and other manuals available with department. They shall visit department to learn about admission processes. Operators shall be well versed with department jurisdiction.

j) Call Centre Operators to provide unique FAQs on a weekly basis after checking it from feedback, query and complaints received and only those FAQs to be shared that are not on online admission e-FAQ application. Operator’s supervisor shall make sure that unique FAQs are sent across to the CET CELL.

k) Payment to telephone/service line and related issues will be handled by the bidder and department services must not suffer in such case. Education Department will not be involved in any kind of payment related issues with service line provider.

l) Monthly compliance report and live dashboard API status report will be submitted by the bidder on monthly basis.
m) Bidder shall provide a detailed approach and methodology for all services that will be covered

n) Bidder will be responsible for all the Missed Call services where citizen may give a missed call and receive a call back from the call centre.
o) Call centre agents to be fluent in English, Hindi and Marathi language. System shall be able to provide call details in all three languages.
p) Call centre to provide portal login to department covering all the SLAs for complete analysis of calls on real time basis.
q) Monthly review meeting will be conducted at department throughout the engagement period. Call centre SPOC to be present at department premises for the meetings as and when required.
r) Agent wise call recordings to be provided by Call centre to department on daily basis or whenever asked by the department.
s) A third-party call audit to be done for which expenses will be borne by the bidder.
t) Automatic operator feedback message with options “Y/N” will be sent to the citizen after each call. Every feedback will be recorded in the Bidder’s application giving monthly operator performance report.
u) Bidder will integrate chatbot option for quick and easy communication with citizen/applicant. Chatbot shall be operational 24*7 hrs.
v) Inbound Channels: Telephone, Mobile, Email, SMS
w) Outbound Channel: Telephone, Email, SMS

4.5.2 Assistance to Candidates and Colleges

a) Call Centre shall guide candidates on how to use the information given in the booklet during the entire admission process
b) Call Centre shall assist/guide candidates during the registration of candidate (Part-1 of candidates)
c) Call Centre shall assist/guide colleges during the registration of colleges
d) Call Centre shall assist candidates in getting information on nearby colleges registered in online admission portal
e) Call Centre shall assist candidates while filling option form (Part-2 of candidates)
f) Call Centre shall provide information for upcoming admission rounds to candidates and colleges
g) Call Centre shall be able to register the grievance against any college
h) Call Centre shall be able to provide the “seat allotment status” of any candidate as and when the candidate needs to know their status
i) Call Centre shall be able to provide the round-wise, college-wise, stream-wise cut-off status to the callers (candidate or colleges)
j) Call Centre shall be able to function as a helpdesk, providing necessary information about admission process to candidates / parents/ colleges, who dial the toll-free number from landline or mobile phones
k) Call centre agents shall have thorough knowledge about online admission processes and its services. Agents shall be trained in a way that they shall be able to provide all the relevant information to candidate or colleges. Call Centre Operators shall be well versed with department jurisdiction.
l) Call centre agents to provide unique FAQs on a weekly basis after checking it from feedback, query and complaints received and only those FAQs to be shared that are not on online admission eFAQ application. Operator’s supervisor shall make sure that unique FAQs are sent across to the department/team members.

4.5.3 Dashboard and Monitoring

a) Daily compliance report and live dashboard API status report shall be submitted by the bidder on hourly and daily basis which shows the number of calls received, number of calls missed due to heavy traffic, per seat utilization in terms of the number of calls received, etc.
b) Bidder shall provide a detailed approach and methodology for all services that will be covered
c) Operator wise call recordings to be provided by the bidder to department on daily basis or whenever
asked by the department

d) Bidder shall provide a login to department users in the Grievance Redressal System for complete analysis of calls on real time basis.

e) A facility shall available to department monitoring team, external and internal auditors to periodically inspect the functioning of call centre. The monitoring team shall be able to access all records, security measures including data and software backups, firewalls and antivirus software updates etc.

f) For monitoring, audit and quality assurance purposes, 100% call recording shall be done, and such recordings shall be stored for minimum period of 60 days from the date of recording. CCO shall provide the call log to the department on daily basis via compatible medium.

g) Additionally, CCO shall provide facility to remotely monitor performance on all SLAs/ KPIs and all the applications provided by the system i.e. real- time ACD statistics, calls in queue, number of agents logged in, number of agents abandoned answered calls, query of the call logs of a customer etc. by designated call centre coordinator or call centre in-charge.

h) CCO shall generate and submit to department periodic MIS and SLA reports as per the format and frequency decided by department.

i) Monthly review meeting will be conducted at department throughout the engagement period. Call Centre SPOC to be present at department premises for the meetings as and when required.

j) Automatic agent feedback message with options “Y/N” will be sent to the citizen after each call. Every feedback will be recorded in the Bidder’s application giving monthly agent performance report.

### 4.5.4 Scaling Up or Down of Call Center Executives

a) The Help Desk shall follow the per-seat model.

b) The Help Desk shall have 6 seats to start off the operations.

c) Any requirement of an increase in the number of seats shall have to be fulfilled within 24 hours from the date and time of notification of requirement.

d) The seats will be kept on adding / eliminating as and when needed by the department.

e) The CCO shall submit the daily call utilization report and based on the utilization report department will decide to scale up or down of call centre executive.

f) The scaling up or down will be based on the below calculations

i. One executive shall attend 80 calls (threshold limit) approximately in a day

ii. If the number of unanswered calls is more than the total capacity of the number of resources deployed up to the 70% of the threshold limit, then CCO can request department to increase the number of resources. Department will analyze the request and will provide approval.

iii. CCO shall deploy the number of resources approved by the department with 24 hours of the approval.

iv. If the number of calls received is less than the total capacity of the number of resources deployed up to the 70% of the threshold limit, then CCO can request department to decrease the number of resources. Department will analyze the request and will provide approval.

v. CCO shall remove the number of resources approved by the department with 24 hours of the approval.

vi. The Call Centre shall have the capability to scale up / scale down the requirements within 24 hours’ notice in written by the licensing officer in charge by the School education and Sports Department.
4.5.5 Location of Call Centre

The location of the contact centre shall be in Pune / Mumbai at premise arranged/managed by bidder.

4.5.6 Infrastructure/Building

a) Department shall not provide any space for operator area and training of operators for the citizen contact centre. The successful bidder will use their own infrastructure as the Department Call Centre. The successful bidder shall ensure preparation of the allocated space for operations of the Call Centre. This would include: Office furniture and setup including air-conditioning, networking, telephone connectivity, pantry area, training room in the allocated area with appropriate facilities, only during the training period. Other facilities in compliance with the industry standards/ requirements for smooth operations of the citizen contact centre.

b) The proposed site shall have adequate power back up of minimum two hours battery backup.

c) The electricity connectivity shall be arranged by the successful bidder and no additional cost towards the same will be provided by the department.

4.5.7 Toll Free Number

Successful bidder shall provide for two toll free number having following features: -

a) Number shall be accessible from any other network operators also.

b) Applicant shall be able to dial this toll-free number from mobile as well as landline.

c) Monthly billing to service provider for toll free number will be paid by Bidder.

d) Bidder is responsible for setting up toll free number with its internal system.

4.5.8 Seats

The Call Centre to be setup for department will follow the per seat model. The Call Centre will be of minimum 6 seats, scalable up to 10 based on requirements during contract period. Initially, the Call Centre will consist of 6 seats only which will be operational throughout the window of operations as specified in the next section. The Call Centre will maintain the number of seats as long as there is no additional seat requirement from department. If the requirement arises from department, department shall give an order for increase or decrease of the number of seats. The Call Centre Operator shall have to ensure increase/decrease of seats as per following:

e) The CCO operations are expected to undergo lean and peak periods of operations. The CCO shall manage its staff in manner that the specific SLAs are met. Addition of seats (up to 20% of number of seats approved by department) in order to meet the SLAs specified will have to be done by the CCO to cater to temporary/ unforeseen peaks without any additional cost to department.

f) Any requirement of permanent increase up to 10% additional seats of the current number of seats shall have to cater within 1 week from the date of notification of requirement.

P1

4.5.9 Technical Infrastructure

The scope of work of the CCO under establishment of IT infrastructure will include the following key activities:

4.5.9.1 IT Infrastructure
a) It will be responsibility of CCO to provide all necessary servers, storage, network connectivity required for managing the call centre operations.

b) The CCO shall follow the standard DR policies to ensure no loss of department call centre related data.

c) As part of the establishment of the Call Centre, the CCO will be customizing various applications as per department requirement for performing the call centre operations. The list of such applications is:
- Interactive Voice Response System (IVRS)
- Automatic Call Distribution (ACD)
- Customer Relationship Management Application
- Computer Telephony Integration
- Recording Solution

d) Suitable reporting software shall be made available, as part of the above-mentioned applications, to generate standard report formats to measure/verify various SLAs, for monitoring the performance of agents. IVRS, ACD etc. CCO shall provide a portal for sharing reports and dashboard so that the designated officers of department are able to generate reports at their end. The key characteristics of the reports shall include:
- The reports shall in flexible report formats, in xls, txt or any other user-friendly structure including graphics depending on the request of department from time to time.
- Reports shall also be available in web-enabled format & shall configurable to be mailed to a defined mailing list at defined interval/period.

4.5.9.2 Content and SOP preparation

The CCO will be required to prepare detailed Standard Operating Procedures and content & scripts for at least all information and grievance services for UAT and testing purposes before go-live.

4.5.9.3 Window of Operations

The operating window of Call Centre shall be from 9 am to 7 pm, 7 days a week and CCO shall maintain the number of agents requested by the department throughout the window of operations. Call Centre shall not be operational on national holidays.

4.5.9.4 Language Capabilities

The Call Centre shall support Marathi, English and Hindi language to enable access to a greater section of the populace. For contacts made via telephone, an IVRS prompt shall provide language options to the caller to facilitate language selection. The CCO shall ensure that adequate number of agents trained in local language are available for providing services.

Outbound emails/calls to customers shall be in the language of communication received from the customer. In case language of communication is not known, Marathi will be default language.

4.5.9.5 Call Management

The Call Centre will be accessible by the customers on the designated number and email address. The calls initiated from any phone number/operator to the designated number shall land in the Call Centre. The CCO will be required to prepare the Standard operating procedures (SOP) for various call types received through various channels and for each service to be delivered from the Call Centre. The list of standard operating procedures to be prepared includes, but not limited to, the following:
- SOP for handling voice, SMS and email channels for both information and grievance requests
- SOP for handling grievances raised on social media like Facebook, twitter etc.
- SOP, scripts and escalation matrix for each service to be delivered through Call Centre.
4.5.10 System Maintenance Post Go-Live

The CCO shall be responsible for CALL CENTRE solution and infrastructure maintenance during the operations and maintenance phase which shall include:

➢ Technical Support Services including application patch, updates and deployment Application Customization (including IVR Tree expansion)
➢ Overall responsibility for smooth operations of the complete Call Centre ecosystem

4.5.11 Monitoring

a) A facility shall be made available to department monitoring team, external and internal auditors to periodically inspect the functioning of call centre. The monitoring team shall be able to access all records, security measures including data and software backups, firewalls and antivirus software updates etc.

b) For monitoring, audit and quality assurance purposes, 100% call recording shall be done, and such recordings shall be stored for minimum period of 90 days from the date of recording. CCO shall provide the call log to the department on daily basis via compatible medium.

c) Additionally, CCO shall provide facility to remotely monitor performance on all SLAs/ KPIs and also of all the applications provided by the system i.e. real-time ACD statistics, calls in queue, number of agents logged in, number of agents abandoned answered calls, query of the call logs of a particular customer etc. by designated call centre coordinator or call centre in-charge.

d) CCO shall generate and submit to department periodic MIS and SLA reports as per the format and frequency decided by department.

4.5.12 Training

a) CCO shall plan for imparting proper training in soft skills, language skills, call handling via different channels, content-based training etc. so as to prepare agents to answer different types of queries, and on other aspects of contact centre services.

b) Training material shall be prepared and shared with department for due approval. A copy of training booklet shall be given to the attendees.

c) CCO shall ensure that all the agents are put on live customer interactions only after providing them enough training. All training costs shall be borne by the successful bidder.

d) The department has the right to attend any training session and/or conduct a training test for agent/s
4.6 Milestones / Project Timelines for CAP

The timeline mentioned below are indicative, the bidder with least proposed timeline will be preferred and the same will be evaluated at the time of presentation.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Milestone</th>
<th>Expected Time</th>
<th>Deliverables / Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Submission of detailed Project Management Plan, Exit Management Plan along with establishment of live project management dashboard</td>
<td>T + 1 week</td>
<td>Project Charter</td>
</tr>
<tr>
<td>2</td>
<td>Development of the system / Customization of existing system of SI and make the system go-live</td>
<td>T + 2 weeks</td>
<td>• Digitization and migration of Database</td>
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<tr>
<td></td>
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<td>• Full customization of the application software</td>
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<td></td>
<td>• Rollout for UAT</td>
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<td></td>
<td></td>
<td></td>
<td>• Hosting of application after declaration of NTA/CET result</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• Unit and Integration Testing Plan and Procedure</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• UAT Test cases</td>
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<tr>
<td></td>
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<td></td>
<td>• Testing report with fail / pass results and plan to fix the defects</td>
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<td></td>
<td></td>
<td></td>
<td>• Security Audit</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• Operationalization and Go-live of system</td>
</tr>
</tbody>
</table>

Where T is the effective date of LoI issuance.

Schedule will be discussed with SI and will be finalized by CET CELL.
PART :C

5. Instruction to Bidders

5.1 General Information

The bidder is required to read the RFP document and the Addendum(s) if any and would be deemed to be in knowledge of the provisions of both the document and the Addendum(s). No claim of any nature whatsoever shall be entertained in this regard. In case of any conflict between the addendum(s) and the RFP document, the provisions of the RFP document shall prevail for all intents and purposes.

I. Tenders (non-transferable) would be considered in the prescribed RFP format. Proposals duly filled-in and accompanying all supporting documents shall be submitted on or before the given time after which no RFPs shall be accepted.

II. The bids shall be opened at the given address in the presence of representatives of the participating bidders, if any as per the bid schedule mentioned below. The Technical Bids of only those bidders who have submitted the EMD shall be considered.

5.2 Compliant Proposals / Completeness of Response

1) Bidders are advised to study all instructions, forms, terms, requirements and other information in the RFP documents carefully. Submission of the bid shall be deemed to have been done after careful study and examination of the RFP document with full understanding of its implications.

2) Failure to comply with the requirements of this paragraph may render the Proposal noncompliant and the Proposal may be rejected. Bidders must:
   a) Include all documentation specified in this RFP
   b) Follow the format of this RFP and respond to each element in the order as set out in this RFP
   c) Comply with all requirements as set out within this RFP.

5.3 Code of Integrity

No official of a procuring entity or a Bidder shall act in contravention of the codes which includes

1. Prohibition of
   a) Making offer, solicitation or acceptance of bribe, reward or gift or any material benefit, either directly or indirectly, in exchange for an unfair advantage in the procurement process or to otherwise influence the procurement process.
   b) Any omission, or misrepresentation that may mislead or attempt to mislead so that financial or other benefit may be obtained, or an obligation avoided.
   c) Any collusion bid rigging or anticompetitive behavior that may impair the transparency, fairness and the progress of the procurement process.
   d) Improper use of information provided by the procuring entity to the Bidder with an intent to gain unfair advantage in the procurement process or for personal gain.
   e) Any financial or business transactions between the Bidder and any official of the procuring entity related to tender or execution process of contract; which can affect the decision of the procuring entity directly or indirectly.
   f) Any coercion or any threat to impair or harm, directly or indirectly, any party or its property to influence the procurement process.
   g) Obstruction of any investigation or auditing of a procurement process.
   h) Making false declaration or providing false information for participation in a tender process or to secure a contract

2. Disclosure of conflict of interest.

3. Disclosure by the Bidder of any previous transgressions made in respect of the provisions of sub -
clause (a) with any entity in any country during the last three years or of being debarred by any other procuring entity.

In case of any reported violations, the procuring entity, after giving a reasonable opportunity of being heard, concludes that a Bidder or prospective Bidder, as the case maybe, has contravened the code of integrity, may take appropriate measures.

5.4 Submission of Bids

Proposals must be direct, concise and complete. It must be submitted online only.

- CET Cell will evaluate the bidder’s proposal based on its clarity, relevance and the directness of its response to the requirements of the project as outlined in this RFP.
- Bidders shall furnish the required information on their technical and commercial proposals in the enclosed formats only. In case of any deviations in the format, the bid will be liable for rejection.
- The following points need to be considered while submitting the bids:
  1. Bidders Tool Kit (detailed Help documents, designed for bidders) has been provided on e-Tendering website https://mahatenders.gov.in/ in order to guide them through different steps involved during e-Tendering such as online procedure for tender document purchase, bid preparation, bid submission.
  2. If any assistance is required regarding e-Tendering (registration / upload / download), please contact e-Tendering Helpdesk, contact details are present on the website.
  3. The tender notice/ regular communications shall be uploaded / released on Mahatender portal. Tender document and clarifications/corrigendum will be published on the Mahatender portal https://mahatenders.gov.in/ only.
  4. All the bids (Pre-Qualification, Technical as well as Financial) shall have to be submitted online.
  5. The date and time for online submission shall be communicated on the e-tendering website. The tenderers shall ensure that their tender is prepared online before the expiry of the scheduled date and time and then submitted online before the expiry of the scheduled date and time. No delay on account of any cause will be entertained. Offers not submitted online will not be entertained.
  6. CET Cell may, at its own discretion, extend the date for submission of bids. In such a case, all rights and obligations of CET Cell and the bidders shall be applicable to the extended time frame.
  7. The offers submitted as documents, by telex/telegram/Email or any manner other than specified in point ‘4’ of this section, will not be considered. No correspondence will be entertained on this matter.

- Printed terms and conditions of the bidders will not be considered as forming part of their bid.
- Any further amendments to the RFP will be uploaded only on the Mahatender portal .

https://mahatenders.gov.in/ Such amendments shall taken into consideration by the bidders while preparing their bids.

5.5 Consortium

1) In case the bidder is in a Consortium, the term Bidder as used in this RFP document shall include Lead Bidder of the consortium.
2) A bidder, whether bidding as a Lead Bidder or the consortium member, is entitled to submit only one bid, and cannot participate as any other bidder/ consortium member, in response to this RFP.
3) Where the Bidder is in a consortium, members of the Consortium shall execute a Consortium Agreement setting out clearly the roles and responsibilities of each of them.
4) A duly signed consortium agreement on non-judicial stamp paper shall be submitted as part of the proposal. On award of contract, the successful bidder shall register the consortium agreement and submit a copy of this agreement to the Authority.
5) Misrepresentation/ improper response by the Bidder may lead to the disqualification. If the Bidder is the Lead Member of a consortium, then the entire consortium may be disqualified / rejected. If such
disqualification / rejection occurs after the Proposals have been opened and the highest-ranking Bidder gets disqualified / rejected, then CET CELL reserves the right to consider the next best Bidder, or take any other measure as may be deemed fit in the sole discretion of CET CELL, including annulment of the Selection Process

6) The consortium shall comply with the following additional requirements/ conditions:

   a. A Bidder may include members of consortium
   b. Number of members in a consortium shall not exceed 3 (three) excluding the lead bidder. The roles of the consortium members while carrying out scope of Work for each part shall not overlap
   c. Consortium shall be incorporated prior to bidding and consortium agreement shall be signed prior to the bidding.
   d. The bidders shall take note that in case of selection, the SI shall not engage in any other CET and CAP process elsewhere
   e. In case the work is awarded to a Consortium, all parties to the Consortium shall execute the agreement with Government Authority and all terms shall apply to the consortium members with the necessary changes having been carried out
   f. The Lead Bidder shall be liable and responsible for the work of both the consortium members while other consortium member shall be liable and responsible for their respective scope of work.
   g. The consortium members shall further commit that each such member shall, for the period of project term, be a part of consortium. Change in composition of the Consortium is not permitted after bid submission or contract signing.
   h. Both members of the consortium will be jointly responsible and liable for successful completion of the project, till the project term.
   i. Bidder is required to submit the teaming details for Consortium as per below table:

<table>
<thead>
<tr>
<th>Details</th>
<th>Description (to be filled by bidder)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Consortium Lead Bidder</td>
<td></td>
</tr>
<tr>
<td>Scope of the Consortium Lead Bidder</td>
<td></td>
</tr>
<tr>
<td>Name/s of Consortium Partner</td>
<td></td>
</tr>
<tr>
<td>Scope of the Consortium Partner</td>
<td></td>
</tr>
</tbody>
</table>

j. SI can add rows to the above given table.

k. The Lead bidder shall ensure that the consortium member is financially and technical competent enough to take care of the project for a period of 1 years and shall be a company registered under Indian Companies Act, 1956 or LLP under LLP act, 2008 for at least the last three year.

l. The Lead bidder must ensure that the proposed consortium member shall be a non-blacklisted and registered firm with valid tax identities

m. The Lead bidder must ensure that the consortium member proposed have the required capabilities to perform the tasks mentioned in the scope of work.

n. The Lead bidder in its bid must identify the name of consortium member and the portions of work the consortium member will be performing.

o. At the time of submitting the bid, the Lead bidder must submit a valid legal agreement between the bidder and or consortium members

p. The Lead bidder will be the single point of contact for all the queries related to the consortium assignment.

q. The Lead bidder will be responsible for the quality of services provided by the consortium member.

r. The Lead bidder will be responsible for consortium member so that they adhere to the SLA

s. The Lead bidder will be paid by the department and it will be bidder’s responsibility to pay the consortium member in a timely or agreed manner

t. In case of a legal or any dispute between the selected agency and its consortium member, it will be the responsibility of the selected agency to ensure smooth operations of activities described in the scope of work.
5.6 Pre-Bid Meeting

5.6.1 Pre-bid Conference
1) Government Authority shall hold a pre-bid meeting with the prospective bidders as mentioned in the Bid Control Sheet. Purchaser shall hold a pre-bid meeting with the prospective Bidders as mentioned in Bid Data Sheet.
2) The Bidders will have to ensure that their queries for pre-bid meeting shall reach by email only at cetcell-mah@gov.in on or before Monday, 23/01/2023, 3:30 PM.
   a. The queries shall necessarily be submitted in the following format
   b. The Bidders will have to ensure that their queries for Pre-Bid meeting shall reach to the Communication Address as mentioned above.
   c. The queries shall necessarily be submitted in the following format:

<table>
<thead>
<tr>
<th>Request for Clarification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name and address of the organization submitting request</td>
</tr>
<tr>
<td>Name and Position submitting request</td>
</tr>
<tr>
<td>Contact Details of the Organization/AUTHORIZED representative</td>
</tr>
<tr>
<td>Sr.No.</td>
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<td>--------</td>
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</tr>
</tbody>
</table>

d. Government Authority shall not be responsible for ensuring that the bidders’ queries have been received by them. Any requests for clarifications post the indicated date and time may not be entertained by the Government Authority.

e. Queries received only as per schedule mentioned in notice details will be entertained.

5.6.2 Responses to Pre-Bid Queries and Issue of Corrigendum
1) The officer notified by the Purchaser will endeavor to provide timely response to all queries. However, Purchaser makes no representation or warranty as to the completeness or accuracy of any response made in good faith, nor does Purchaser undertake to answer all the queries that have been posed by the Bidders.
2) At any time prior to the last date for receipt of bids, Purchaser may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the RFP Document by a corrigendum.
3) The corrigendum (if any) & clarifications to the queries from all Bidders will be posted on the GeM.gov.in and may be emailed to all participants of the pre-bid conference.
4) Any such corrigendum shall be deemed to be incorporated into this RFP.
5) In order to provide prospective Bidders reasonable time for taking the corrigendum into account, the Purchaser may, at its discretion, extend the last date for the receipt of Proposals.

5.7 Cost of Bidding
The Bidder shall bear all costs associated with the preparation and submission of its bid and CET Cell shall in no case be responsible or liable for these costs, whether or not the Bid is finally accepted.
5.8 Right to Terminate the Process

1. Purchaser may terminate the RFP process at any time and without assigning any reason. Purchaser makes no commitments, express or implied, that this process will result in a business transaction with anyone.
2. This RFP does not constitute an offer by the Purchaser. The Bidder’s participation in this process may result Purchaser selecting the Bidder to engage towards execution of the subsequent contract.

5.9 Bidder’s Authorized Signatory

A Proposal shall be accompanied by an appropriate board resolution or power of attorney (Please refer annexures) in the name of an authorized signatory of the Bidder stating that he is authorized to execute documents and to undertake any activity associated with the Bidder’s Proposal. Furthermore, the bid must also be submitted online after being digitally signed by an authorized representative of the bidding entity.

5.10 Proposal validity

Technical and Financial Proposals shall remain valid for a period of 180 days from the date specified for opening of Technical Bid. CET CELL shall reject the Proposal as being non-responsive if it is valid for a shorter period. In exceptional circumstances, prior to expiry of the original Proposal validity period, CET CELL may extend the period of validity for a specified additional period. The request and the responses thereto shall be made in writing to or by email on the listed contact information of the Bidders. In such cases, the Bidders shall not be required or permitted to modify the Proposal but shall be required to extend the validity of the Proposal for the extension period.

5.11 Earnest Money Deposit (EMD)

1) The bidder shall furnish, as part of its general bid, an EMD of amount INR 2,00,00,000/- (INR Two Crore only). The EMD shall have to be paid through payments option available on Mahatender portal https://mahatenders.gov.in/ No other mode of payment will be acceptable. Unsuccessful bidder’s EMD shall be discharged / returned without interest.
2) EMD shall be forfeited in the event of any erosion, refusal and / or delay on the part of bidder to sign and / or execute the Agreement on acceptance of his tender. EMD shall be forfeited in case the bidder fails to commence the work awarded to him within the prescribed time limit.
3) The EMD amount is interest free and will be refundable to the unsuccessful Bidders without any accrued interest on it.
4) Proposals not accompanied with the EMD or containing EMD with infirmity(ies) (relating to the amount or validity period etc.), mentioned above, shall be summarily rejected.
5) The EMD may be forfeited in the event of:
   a) A Bidder withdrawing its bid during the period of bid validity
   b) A successful Bidder fails to sign the subsequent contract in accordance with this RFP
   c) The Bidder being found to have indulged in any suppression of facts, furnishing of fraudulent statement, misconduct, or other dishonest or other ethically improper activity, in relation to this RFP
   d) A Proposal contains deviations (except when provided in conformity with the RFP) conditional offers and partial offers
   e) The bid or its submission is not in conformity with the instruction mentioned herein
   f) The bidder violates any of the provisions of the terms and conditions of the RFP
6) In the case if a successful bidder fails to accept award of work, sign the Contract Agreement with CET CELL, after acceptance of communication on placement of award, furnish performance security, or the bidder violates any of such important conditions of this RFP document or indulges in any such activities as would jeopardize the interest of CET CELL.
7) The decision of CET CELL regarding forfeiture of bid security shall be final and shall not be called upon.
question under any circumstances.

8) A default in such a case may involve blacklisting of the bidder by CET CELL.

5.12 Security Deposit

On receipt of a letter of intent from the Purchaser, the successful Bidder will furnish a bank guarantee/Demand Draft, by way of performance security, equivalent to 3 per cent of the total contract value, on or before the signing of the subsequent contract, within 15 days from notification of award. In case the successful Bidder fails to submit Performance Guarantee/ Demand Draft within the time stipulated, the Purchaser may, at its sole discretion, cancel the letter of intent without giving any notice and forfeit the EMD furnished by the Bidder, in addition to any other right available to it under this RFP.

The successful Bidder shall ensure, the Performance Guarantee/ Demand Draft is valid at all times during the Term of the subsequent contract (including any renewal) and for a period of 90 days beyond all contractual obligations, including warranty terms.

The Competent Authority may invoke the Performance Guarantee/ Demand Draft in the event of a breach by the successful Bidder leading to termination.

5.13 Bid Opening

Bids shall be opened as per schedule specified above. Bidders may send their authorized representative/s to attend the opening of the bids. In case bidder sends his/her representative/s, it shall be accompanied by authority letter as specified in. Only those persons shall be allowed to attend who have authority letters. The Technical Bid shall be opened as per schedule at CET CELL, Conference hall, 9th Floor, New Excelsior Building, A. K. Nayak Marg, Fort, Mumbai- 400 001 in the presence of those tenderer(s) who wish to be present. No separate communication shall be sent in this regard. In the event of due date being a closed holiday or declared Holiday for Government offices, the due date for opening of the bids shall be the following working day at the appointed date, time & venue. CET CELL shall open the financial bids of only those bidders, who have been found to be eligible and technically qualified. Technical evaluation shall be done by CET CELL and shall include the compliance of eligibility criteria as per the terms and conditions of the RFP. No discussion/ interaction shall be held with the bidders or their representatives whose bids have been rejected / disqualified. CET CELL reserves the right to accept or reject in part or full any or all the offers without assigning any reasons whatsoever. CET CELL shall evaluate the Technical Bids and Financial bids. The decisions of the CET CELL in the evaluation of the bids shall be final. No correspondence shall be entertained outside the process of negotiation / discussion with the CET CELL.

At the date, time and location of the bid opening as specified in the RFP, CET CELL constituted for the purpose shall open the Proposals, in the presence of Bidders’ designated representatives who choose to attend. The Bidders’ representatives who are present shall sign a register evidencing their attendance. The Bidders’ names, and any such other details as the CET CELL may consider appropriate, shall be announced by the CET CELL at State CET , Conference hall, 9th Floor, New Excelsior Building, A. K. Nayak Marg, Fort, Mumbai- 400 001 on the day of the bid opening. CET CELL reserves the right at any time to postpone or cancel a scheduled bid opening. The bids shall be opened at the address specified in RFP.

5.14 Language of Bid and Correspondence

The Bid shall be prepared by the Bidder in English language only. All the documents relating to the Bid (including brochures) supplied by the Bidder shall also be in English, and the correspondence between the Bidder & CET CELL shall be in English language only.
5.15 Bid Currencies
Prices shall be quoted in INDIAN RUPEES, inclusive of all prevailing taxes.

5.16 RFP document fees
1) The RFP document has been made available for download without any fee from the website https://mahatenders.gov.in/
2) Bidders shall submit, along with their Proposals, confirmation of submission of a tender fee of INR 10,000/- (INR Ten Thousand Only) through https://mahatenders.gov.in/
3) Proposals received without or with inadequate RFP document fees shall be rejected.

5.17 Bidder's Authorized Signatory
A Proposal shall be accompanied by an appropriate board resolution or power of attorney (Please refer annexures) in the name of an authorized signatory of the Bidder stating that he is authorized to execute documents and to undertake any activity associated with the Bidder's Proposal. Furthermore, the bid must also be submitted online after being digitally signed by an authorized representative of the bidding entity.

5.18 Proposal Preparation Costs
The Bidder shall be responsible for all costs incurred in connection with participation in the RFP process, including, but not limited to, costs incurred in conduct of informative and other diligence activities, participation in meetings/discussions/presentations, preparation of proposal, in providing any additional information required by Purchaser to facilitate the evaluation process, and in negotiating a definitive contract or all such activities related to the bid process.

Purchaser will in no event be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

5.19 Submission of Proposals
Bidders shall submit their responses as per the procedure specified in the e-Procurement portal (through https://mahatenders.gov.in/) being used for this purpose. The documents to be uploaded include:

1) Documents confirming submission of Tender Fee & EMD
2) Pre-qualification response
3) Technical proposal
4) Financial proposal

However, each of the above documents must be uploaded in the format specified for this purpose and as per the specified folder structure in the e-Procurement portal. The bidder must ensure that the bid is digitally signed by the Authorized Signatory of the bidding firm and has been duly submitted within the submission timelines. Please note that prices shall not be indicated in the pre-qualification proposal or technical proposal but shall only be indicated in the commercial proposal.

Purchaser will in no case be responsible if the bid is not submitted online within the specified timelines. All the pages of the Proposal document must be sequentially numbered and must contain the list of contents with page numbers. Any deficiency in the documentation may result in the rejection of the Bidder’s Proposal.
5.20 Proposals submitted after designated time for submission

Bids submitted after the due date will not be accepted by the e-Procurement system and hence will automatically be rejected. The Purchaser shall not be responsible for any delay in the online submission of the proposal. Alternatively, bids of Bidders not sending in the tender fee & EMD instruments before the designated deadline for proposal submission shall be summarily rejected.

5.21 Evaluation Process

1) The Purchaser will constitute a Bid Evaluation Committee to evaluate the responses of the Bidders.
2) The Bid Evaluation Committee constituted by the Purchaser shall evaluate the responses to the RFP and all supporting documents / documentary evidence.
3) The decision of the Bid Evaluation Committee in the evaluation of responses to the RFP shall be final. No correspondence will be entertained outside the process of negotiation/ discussion with the Bid Evaluation Committee.
4) The Bid Evaluation Committee may ask for additional documents/meetings with the Bidders to seek clarifications on their proposals.
5) The Bid Evaluation Committee reserves the right to reject any or all Proposals on the basis of any deviations contained in them.
6) Each of the responses shall be evaluated as per the criterions and requirements specified in this RFP.

5.22 Proposal Opening

The Proposals submitted before the deadline will be opened at date and time specified in Bid Data Sheet, by members of the Bid Evaluation Committee, in the presence of the Bidder’s representatives who may be present at the time of opening.

The representatives of the Bidders are advised to carry an identity card or a letter of authority from the Bidding entity to identify their bonafides for attending the opening of the Proposal.

5.23 Proposal Validity

The offer submitted by the Bidders shall valid for minimum period of 180 days from the date of submission of the Proposal.

5.24 Proposal Evaluation

1) Initial Proposal scrutiny will be held to confirm that Proposals do not suffer from the infirmities detailed below. Proposals will be treated as non-responsive, if a Proposal is found to have been:
   a) Submitted in a manner not conforming with the manner specified in the RFP document
   b) Submitted without appropriate EMD as prescribed herein
   c) Received without the appropriate power of attorney (Please refer annexures)
   d) Containing subjective/incomplete information
   e) Submitted without the documents requested in the checklist
   f) Non-compliant with any of the clauses stipulated in the RFP
   g) Having lesser than the prescribed validity period
2) The EMD of all non-responsive bids shall be returned to the bidders
3) All responsive bids will be considered for further processing as below. Purchaser will prepare a list of responsive Bidders, who comply with all the Terms and Conditions of the Tender. All eligible bids will be considered for further evaluation by the Bid Evaluation Committee according to the evaluation process
5.25 Evaluation and Selection Criteria

CET CELL for the purpose shall carry out a detailed evaluation of the Proposals as per section 6 of the RFP in order to determine whether the technical aspects are in accordance with the requirements set forth in the Document. In order to reach such a determination, the CET CELL shall examine and compare the technical aspects and thoroughness of the proposals on the basis of information provided by the bidder, taking into account the following factors:

- Overall completeness and compliance with the requirement.
- Proposed work-plan and methodology shall demonstrate that the bidder shall achieve the performance standards within the time frame described in RFP documents.
- Any other relevant factors, listed in RFP document, or which CET CELL deems necessary or prudent to take into consideration.

5.26 Disqualification or rejection of RFP

The RFP may be liable to be rejected or the bidder be disqualified at any stage on account of the following and the decision of the CET CELL in this regard shall be final. If the bid or its submission is not in conformity with the instruction mentioned herein if:

- The bid is conditional
- The bid is not accompanied by the requisite EMD
- It is not signed with seal, on all the pages of the bid document
- It is received after the expiry of due date and time
- It is incomplete and required documents are not furnished
- It is misleading or false statements/ representations are made as part of requirements found to have a record of poor performance such as having abandoned work, having been inordinately delayed completion and having faced commercial failures etc
- In case of over writings/cuttings in the bid, if the same is not authenticated with signatures not accompanied by audited financials
- Any other item not complied in the RFP document

6 Compliance with e-Gov Standards

6.1 Single-Sign On

The application shall enable single-sign-on so that any user once authenticated and authorized by system is not required to be re-authorized for completing any of the services in the same session. For employees of CET CELL, the browser-based application accessed on the intranet, through single-sign-on mechanism, will provide access to all the services of CET CELL concerned (based on their roles and responsibilities), Help module, basic and advanced reporting etc. Similarly, for external users, based on their profile and registration, the system shall enable single sign on facility to apply for various services, make payments, submit queries / complaints and check status of their applications.

6.2 Interoperability Standards

Keeping in view the evolving needs of interoperability, especially the possibility that the solution shall become the focal point of delivery of services, and may also involve cross functionality with the e-Government projects of other departments / businesses in future, the solution shall be built on Open Standards. Some of the states
already have other applications deployed and running for delivering services to citizens. The SI shall ensure that the application developed is easily integrated with the existing applications. Every care shall be taken to ensure that the code does not build a dependency on any proprietary software, particularly, through the use of proprietary ‘stored procedures’ belonging to a specific database product.

6.3 Scalability
One of the fundamental requirements of the proposed application is its scalability. The architecture shall be proven to be scalable (cater to increasing load of internal and external users and their transactions) and capable of delivering high performance for at least five years from the date of deployment. In this context, it is required that the application and deployment architecture shall provide for Scale-Up and Scale out on the Application and Web Servers, Database Servers and all other solution components. For pilot states, the scalability is very important, and this aspect shall be thoroughly tested before statewide roll out.

6.4 Security
The systems implemented for project shall highly secure, considering that it is intended to handle sensitive data relating to the citizens of the state. The overarching security considerations are described below.
1) The security services used to protect the solution shall include: Identification, Authentication, Access Control, Administration and Audit and support for industry standard protocols.
2) The solution shall support advanced user authentication mechanisms including digital certificates and biometric authentication.
3) Security design shall provide for a well-designed identity management system, security of physical and digital assets, data and network security, backup and recovery and disaster recovery system.
4) The solution shall provide for maintaining an audit trail of all the transactions and shall also ensure the non-repudiation of audit trail without impacting the overall performance of the system.
5) The overarching requirement is the need to comply with ISO 27001 standards of security.
6) The application design and development shall comply with Open Web Application Security Project [OWASP] top 10 principles.

6.5 High Level Design (HLD)
Once the SRS are approved, the SI shall complete the High-Level Designing and all HLD documents of all the functionalities, integration with existing application and external application. The SI shall prepare the HLD and have it reviewed and approved by CET CELL.

6.6 Detailed (Low Level) Design (LLD)
The LLD shall interpret the approved HLD to help application development and shall include detailed service descriptions and specifications, application logic (including “pseudo code”) and UI design (screen design and navigation). The preparation of test cases will also be completed during this stage. The SI shall have the design documents reviewed and approved by the Purchaser.
7. Criteria for Evaluation

1) The Purchaser will constitute a Tender Evaluation Committee (TEC) to evaluate the responses of the Bidders.

2) The TEC constituted by the Purchaser shall evaluate the responses to the RFP and all supporting documents / documentary evidence.

3) The decision of the TEC in the evaluation of responses to the RFP shall be final. No correspondence will be entertained outside the process of negotiation/ discussion with the TEC.

4) The TEC may ask for additional documents/meetings with the Bidders to seek clarifications on their proposals at any stage of the bid evaluation process.

5) The TEC reserves the right to reject any or all Proposals on the basis of any deviations contained therein.

6) Each of the responses shall be evaluated as per the criterions and requirements specified in this RFP.

7.1 Pre-Qualification Criteria

<table>
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<tr>
<th>Sr No.</th>
<th>Eligibility Criteria</th>
<th>Supporting Documents Required</th>
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<tbody>
<tr>
<td>1.</td>
<td>The bidder OR all members (in case of a consortium) be:</td>
<td>The bidder or all members of consortium to submit:</td>
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<tr>
<td></td>
<td>1. A company incorporated in India under the Companies Act, 1956 / 2013 and subsequent amendments thereto.</td>
<td>• Copy of Certificate of Incorporation/ Registration/Partnership deed</td>
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<td>OR A firm incorporated under the Limited Liability Partnership Act 2008 or partnership firm incorporated under the Partnership Act 1932</td>
<td>• Copy of PAN Card</td>
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<td>2. Registered with GST Authorities in India</td>
<td>• Copy of GST Registration</td>
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<td></td>
<td>3. shall have their registered offices with legal presence in India</td>
<td>In case of Consortium, detailed agreement clearly stating the roles and responsibilities of each member of the consortium is to be submitted by lead bidder</td>
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<td></td>
<td>4. Any Consortium member shall in business of Online Examination Management System or Conducting Online Admission Process (CAP) for at least 5 (Five) years as on date of submission of the bid (including name change / impact of mergers or acquisitions).</td>
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<td>2.</td>
<td>The bidder (Sole bidder and/or the lead bidder with members of consortium) shall have minimum average annual turnover of Rs. 100 Crores during each of the last three financial years (i.e. 2021-22, 2020-21 and 2019-20) from IT and IT allied services or IT Enabled Education Services. Including conduct of online examination (CBT), software/application development and deployment, CET application and online Centralized Admission Process with any State or Central Government / Government Undertaking / University / Educational institutes.</td>
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</table>
|   | The bidder or all members of consortium to submit,  
|   | • Audited financial statements for the last three financial years (i.e.2021-22,2020-21 and 2019-20)  
|   | • Certificate from the CA/Statutory Auditor on turnover details from the IT / ITES over the last three (3) financial years (i.e.2021-22,2020-21 and 2019-20)  
|   | • Certificate from the CA/ Statutory Auditor on turnover details from conduction of online exams or computer-based exams over the last three (3) financial years (i.e.2021-22, 2020-21 and 2019-20)  
|   | • Copy of Audited Financial statements for last (3) Financial years. Certificate from the statutory auditor/CA on the turnover details from Conducting online Centralized Admission Process with any State or Central Government / Government Undertaking / University of the company for last (3) financial years. |
| 4. | The lead Bidder of Consortium shall have positive net worth for the last 3 FY (i.e.2021-22, 2020-21 and 2019-20)  
|   | The bidder of Consortium shall submit Certificate from the Statutory Auditor/Chartered Accountant on net worth, as per the last audited FY (i.e.2021-22,2020-21 and 2019-20). |
5. The bidder or members of the consortium shall possess the following certifications
   1) CMMI Level 3 or higher
   2) ISO 27001:2013 certifications
   The bidder or members of the consortium must submit the valid certificate as per the requirement of the RFP.
   Note:
   - In case the certificate is under renewal, the Bidder to provide the last valid certificate along with a certificate from authorized signatory that the renewed certificate will be made available before the time of opening of commercial bids.
   - In case the certificate is not provided by the mentioned time, the bidder will be disqualified, and its commercial bids will not be considered for evaluation. Commercial bids of such bidders will be returned un-opened.

6. Similar Work Experience:
The bidder or the consortium member must have successfully executed 5 similar projects (Conduction of CBT / CAP) (Pan-India Level will be preferred) out of which at least one project shall have condition of conduction of computer-based examination with capability of minimum 25,000 or more candidates appeared in single shift.
The documentary evidence to be submitted:
   - Work order or Contract document clearly specifying the scope of work and Project Completion Certificate
   - Self-certificate or Client certificate/documentary evidence clearly specifying the number of candidates appeared in computer-based examination in a single shift.
   (The bidders shall ensure that the documents submitted shall sufficient to establish necessary experience/credentials required under this criterion. CET Cell reserves the right to ask for any additional documentation to ascertain the credentials. Any discrepancy found in the submitted documents, will make the bidder to be liable for disqualification and any other penal action as deemed fit by CET Cell)
|   | **Similar Work Experience:** | The bidder or all member (in case of a consortium) shall submit following documents:  
- Work order/ Contract clearly highlighting the scope of work.  
Self-certification or Client certification on  
completion of the project along with clearly highlighting the number of candidates taken admission through this work order. |
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<td>6. (b)</td>
<td>The sole bidder OR any member of consortium combinedly (in case of a consortium) must have completed online centralized admission process for more than 2 lakh candidates/applications cumulatively in any State/OR Central Government OR Government Undertaking OR University in India, in any Centralized Admission Process of any State OR Central Government OR Government Undertaking OR Central/State or Deemed Universities in India during the last 5 years as on date of bid submission.</td>
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<tr>
<td>7.</td>
<td>Organizations shall have minimum 200 numbers of experienced professional personnel and especially skilled staff to support the program of work.</td>
<td>Letter from HR Head / Authorized Signatory of the company stating the number of relevant resources under the various roles</td>
</tr>
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</table>
| 8. | **Local Presence:**  
The bidder OR members (in case of a consortium) shall have an office in Maharashtra preferably in Mumbai / Pune. Alternatively, if the bidder doesn’t have an office in Maharashtra, then they must furnish an undertaking that an office would be established in Maharashtra, within 1 (one) month of signing the contract, to providesupport for entire project period. |  
- If office is present, then Copies of any two of the followings to be furnished:  
  - Property Tax / Electricity / Telephone Bill / GST Registration / Lease agreement  
If office is not present, then self- certified declaration by the authorized signatory of the bidder shall submitted along with the proposal. |
| 9. | The bidder or any member in case of consortium must have not been declared ineligible or blacklisted by any entity of Government of India / Government of Maharashtra / other State Government / Government Agencies / Universities / Autonomous Educational Institutes for participation in future bids for unsatisfactory past performance, corrupt, fraudulent or any other unethical business practices as on date of submission of Bid.  
The bidder or any member in case of consortium shall submit “No conflict of interest “certificate and certificate stating that no offence is registered against the firm or its Director anywhere in India. | Self-declaration by the Bidder (all the members of the Consortium individually, in case the Bidder is a consortium) duly signed by the authorized signatory on Non-judicial stamp paper of INR 500/- |

### 7.2 Technical Evaluation Criteria

The following criteria are prescribed as pre-qualifications for bidders interested in undertaking the project. The CET CELL shall examine all of the technical pre-requisites for the conduct of the services. Each Bidder shall be awarded a Technical Score (TS) out of 100 points by the CET CELL based on the parameter given in the table below. The bidders are required to submit documents to establish their capability.

(The bidder shall ensure that the documents submitted shall sufficient to establish necessary experience/credentials required under this criterion. CET Cell reserves the right to ask for any additional documentation to ascertain the credentials. Any discrepancy found in the submitted documents, will make the bidder to be liable for disqualification and any other penal action as deemed fit by CET Cell)
<table>
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<tr>
<th>SN</th>
<th>Parameters</th>
<th>Maximum Marks</th>
<th>Scores</th>
<th>Supporting Documents Required</th>
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<tr>
<td></td>
<td><strong>A. Bidder’s Profile (25 Marks)</strong></td>
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<td>The bidder (Sole bidder and/or the lead bidder with members of consortium shall have minimum average annual turnover of Rs. 100 Crores during each of the last three financial years (i.e.2021-22, 2020-21 and 2019-20) from IT and IT allied services or IT Enabled Education Services. Including conduct of online examination (CBT), software/application development and deployment CET application and online Centralized Admission Process with any State or Central Government / Government Undertaking / University</td>
<td>15</td>
<td>• &gt; 150 Cr. - 15 Marks&lt;br&gt;• 100 Cr. To 150 Cr. - 10 marks</td>
<td>The sole bidder including members of consortium shall submit. Audited financial statements for the last three financial years (i.e.2021-22, 2020-21 and 2019-20)&lt;br&gt;Certificate from the Chartered Accountant or Statutory Auditor on turnover details from conduction of computer based online exams or computer-based exams over the last three (3) financial years (i.e.2021-22, 2020-21 and 2019-20)&lt;br&gt;• Certificate from the statutory auditor/ CA on the turnover details from Conducting Admission Process with any State or Central Government / Government Undertaking / University for last (3) financial years</td>
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<td>The bidder or members of the consortium shall possess minimum CMMI Level 3 or higher certification (the certificate must be valid at the time of bid submission)&lt;br&gt;And&lt;br&gt;• ISO 27001:2013 certification</td>
<td>5</td>
<td>• CMMI Level 5 + ISO 27001:2013 = 5 Marks&lt;br&gt;• CMMI Level 4 + ISO 27001:2013 = 3 Marks&lt;br&gt;• CMMI Level 3 + ISO 27001:2013 = 2 Mark</td>
<td>The bidder or members of the consortium must submit the valid certificate as per the requirement of the RFP.&lt;br&gt;Note:&lt;br&gt;• In case the certificate is under renewal, the Bidder to provide the last valid certificate along with a certificate from authorized signatory that the renewed certificate will be made available before the time of opening of commercial bids.&lt;br&gt;• In case the certificate is not provided by the mentioned time, the bidder will be disqualified, and its commercial bids will not be considered for evaluation. Commercial bids of such bidders will be returned un-opened.</td>
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### B. Bidder’s Experience (45 Marks)

| Number of clients for whom Online Examination has been conducted for more than 50000 candidates (per examination cycle) in last 5 years. *Client: Any local/state/national government body or Educational Institutions/Universities. | 10 | • >=10 clients – 10 marks  
• >=7 to <10 clients – 8 marks  
• >=3 to <7 clients – 6 marks  |
| --- | --- | --- |
| The documentary evidence to be submitted:  
• Work order or Contract document clearly specifying the scope of work and Project Completion Certificate  
• Self-Certificate or Client certificate/ documentary evidence clearly specifying the total number of candidates appeared in the exams in one year. |  |  |

| Number of Candidates per shift for whom Online Examination has been conducted in last 5 years. (maximum number of candidates appeared in single shift of Computer based examination (CBT) conducted online in last 5 years.) | 10 | • >=35000 =10 Marks  
• >=30000 to <35000 Candidates = 8 Marks  
• >=25000 to < 30000 Candidates = 6 Marks  |
| --- | --- | --- |
| The documentary evidence to be submitted:  
• Work order or Contract document clearly specifying the scope of work and Project Completion Certificate  
• Self-Certificate or Client certificate/ documentary evidence clearly specifying the total number of candidates appeared in the exams in one year. |  |  |
<table>
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<tr>
<th></th>
<th><strong>Total Number of candidates examined through centre based CBT for various clients in last 5 years</strong></th>
<th><strong>10</strong></th>
<th><strong>The bidder to submit the following documents:</strong></th>
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<tr>
<td></td>
<td><strong>- &gt;=10,00,000 – 10 marks</strong></td>
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<td><strong>- Work order or Contract document clearly specifying the scope of work and Project Completion Certificate</strong></td>
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<td><strong>- &gt;=500000</strong></td>
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<td><strong>- Self- certification or Client certificate/ documentary evidence clearly specifying the total number of candidates appeared in the exams</strong></td>
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<td><strong>&lt;1000000 – 7 marks</strong></td>
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<td><strong>- &gt;=300000</strong></td>
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<td><strong>&lt;500000 – 4 marks</strong></td>
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|   | **Number of clients for whom Online Centralized Admission Process has been conducted for more than 50000 candidates (per Online Centralized Admission Process) in last 5 years.** | **10** | **The documentary evidence to be submitted:** |
|   | *Client: Any local / state / national government body or Educational Institutions/ Universities.* |       | **- Work order or Contract document clearly specifying the scope of work and Project Completion Certificate** |
|   |                                                  |       | **- Self-Certificate or Client certificate/ documentary evidence clearly specifying the total number of candidates appeared in the CAP in one year.** |
|   | **- >=10 clients – 10 marks**                    |       |                                                  |
|   | **- >=7 to <10 clients – 7 marks**               |       |                                                  |
|   | **- >=3 to <7 clients – 4 marks**                |       |                                                  |

|   | **The Bidder (Sole Bidder including the members of consortium) must have completed (application processed) online centralized admission process for more than 2 lakh candidates/applications cumulatively in any State OR Central Government OR Government Undertaking OR University in India, in any online Centralized Admission Process of any State OR Central Government OR Government Undertaking OR Central/State or Deemed Universities in India during the last 5 years as on date of bid submission.** | **5** | **The sole bidder including all member (in case of a consortium) shall submit following documents:** |
|   | **- For initial cumulative 2 lakh candidate: 3 Marks** |       | **- Work order/ Contract clearly highlighting the scope of work.** |
|   | **- For every additional 50,000 candidate order: 1 Mark** |       | **Client certification on completion of the project along with clearly highlighting the number of candidates application processed through the CAP application.** |
### C. Presentation of Bidder (15 Marks)

<table>
<thead>
<tr>
<th></th>
<th>Bidder shall explain their process of conduction of examination online. The process shall be scientific and also include quality and security assurance..</th>
<th></th>
<th>Copy of Presentation to be submitted where evaluation will be based on following parameters (To be presented on day of presentation)</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>7</td>
<td>-</td>
<td>• Understanding of the CET Cell requirement and proposed solution</td>
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<td>• Approach &amp; Methodology</td>
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<td>• Approach towards multi subject, multi shift normalization</td>
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<td>• Approach for handling scalability and restricting malpractices</td>
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<th></th>
<th>The bidder needs to present their detailed solution and Approach &amp; Methodology for implementation and services before the TEC. And suggest action plan in case of emergent situation with time line required to reinstate</th>
<th></th>
<th>Presentation covering solution proposed, approach &amp; methodology for implementation of CAP application and undertaking the end to end admission services as specified in the Scope of Work.</th>
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<td>2</td>
<td>8</td>
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### D. Demonstration of Available Software / Application (Max. Marks 15)

<table>
<thead>
<tr>
<th>SN</th>
<th>Category of criteria</th>
<th>Max Marks</th>
<th>Evaluation criterion details</th>
<th>Supporting documents required</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Demonstration of Available Software/Application</td>
<td>15</td>
<td>The bidder needs to demonstrate the process followed in CET &amp; CAP to the TEC</td>
<td>The SI will give demonstration of the process followed in CET &amp; CAP With reference to parameters to be given by CET cell. For e.g the following points may be referred to.</td>
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<td>• Batch Wise preference center Allocation for CET examination</td>
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<td>• Process followed in Hall ticket Generating, Uploading QP, Displaying QP, Result processing</td>
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<td>• Process followed in objection raising and Objection Handling</td>
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<td>• Integration of primary data into CAP Software/Application</td>
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<td>• Preparation of Seat Matrix</td>
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<td>• Alphabetical Merit List</td>
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<td>• Final Merit List</td>
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<td>A+B+C+D</td>
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<td>Allocation based on Final Merit List</td>
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<td>Admission verification Process after completion of admission process</td>
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- The technical bids will be evaluated based on the aforementioned criteria.
- The bidder to be technically qualified, must achieve minimum 70 marks in above criteria.
- The bidder needs to furnish all the supporting/evidence documents for the above listed details.
7.3 Commercial Bid Evaluation

a) The final score will be calculated through QCBS selection method

b) 70% weightage will be awarded for Technical Evaluation and 30% weightage will be awarded for Financial Evaluation

c) Technical Bid will be assigned a Technical score (Ts) out of a maximum of 100 points, as per the Scoring Model provided in the previous section

d) The commercial scores would be normalized on a scale of 100, with lowest score being normalized to 100 and the rest being awarded on a pro-rata basis. Such normalized scores would be considered for the purpose of QCBS based evaluation, explained in section below

e) CET CELL reserves rights to further negotiate final rates/costs with the Successful Bidder if required.

Final Evaluation Criteria - Quality and Cost based selection (QCBS)

The individual Bidder’s commercial scores (CS) are normalized as per the formula below:

Final Score: \((70\% \times 100 \times \text{ITS/HTS}) + (30\% \times 100 \times \text{L1/C})\)

Where: ITS: Individual Technical Score of the bidder qualified in Stage 2
HTS: Highest Technical Score amongst the bidders
C: Cost mentioned in the commercial bid of the bidder
L1: Lowest Cost amongst the bidders

Example: If in response to this RFP, three Bids from Bidders A, B & C are received and the technical scores of them are 75, 80 and 90 marks respectively, all the three bids would be technically suitable (i.e. qualify the Technical Evaluation stage as their technical score are more than 70). Further, if the final calculated price of bidders A, B & C are Rs.120, 100 & 110 respectively. This final calculated price will comprise of cost of CET & CAP as given in BOQ.

In the combined evaluation, the process would be as follows to calculate the final score of each bidder:

Bidder A: \(100 \times 0.7 \times (75/90) + 100 \times 0.3 \times (100/120) = 83.33\)
Bidder B: \(100 \times 0.7 \times (80/90) + 100 \times 0.3 \times (100/100) = 92.22\)
Bidder C: \(100 \times 0.7 \times (90/90) + 100 \times 0.3 \times (100/110) = 97.27\) (Highest Score)

Bidder C would be considered the successful bidder because of obtaining the highest score and would be awarded the contract.
8 Appointment of Systems Integrator

8.1 Award Criteria

The Purchaser will award the Contract to the successful Bidder whose proposal has been determined to be substantially responsive and has been determined as the most responsive bid as per the process outlined above.

8.2 Right to Accept Any Proposal and To Reject Any or All Proposal(s)

The Purchaser reserves the right to accept or reject any proposal, and to annul the tendering process and reject all proposals at any time prior to award of contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for Purchaser’s action.

8.3 Notification of Award

Prior to the expiration of the validity period, Purchaser will notify the successful Bidder in writing or by email, that its proposal has been accepted (Letter of Intent). In case the tendering process / public procurement process has not been completed within the stipulated period, the Purchaser, may request the Bidders to extend the validity period of their Proposal. The decision to extend the validity period of a Bidder’s Proposal shall be the Bidder’s sole prerogative.

8.4 Purchaser Contract Finalization & Award

The Purchaser shall reserve the right to negotiate with the Bidder(s) whose Proposal has been ranked best value bid on the basis of Technical and Commercial Evaluation to the proposed Project.

On this basis the draft Contract Agreement would be finalized for award & signing.

8.5 Security Deposit

On receipt of a letter of intent from the Purchaser, the successful Bidder will furnish a bank guarantee/Demand Draft, by way of performance security, equivalent to minimum 3 per cent of the total contract value, on or before the signing of the subsequent contract, within 7 days from notification of award.

In case the successful Bidder fails to submit Performance Guarantee within the time stipulated, the Purchaser may at its sole discretion cancel the letter of intent without giving any notice and encash the EMD furnished by the Bidder, in addition to any other right available to it under this RFP.

The Performance Guarantee furnished by the successful Bidder shall be in the manner prescribed in Annexure. The successful Bidder shall ensure, the Performance Guarantee is valid at all times during the Term of the subsequent contract (including any renewal) and for a period of 90 days beyond all contractual obligations, including warranty terms.

The Purchaser may invoke the Performance Guarantee in the event of a material breach by the successful Bidder leading to termination for material breach.

8.6 Signing of Contract

Subsequent to receipt of valid Performance Guarantee from the successful Bidder, the parties shall enter into a contract, incorporating all clauses, pre-bid clarifications and the Proposal of the Bidder, between the Purchaser and the successful Bidder. The stamp duty for Signing of Agreement will be borne by the SI.
8.7 Failure to Agree with the Terms and Conditions of the RFP

Failure of the successful Bidder to agree with the Draft Legal Agreement and Terms & Conditions of the RFP shall constitute sufficient grounds for the annulment of the award, in which event Purchaser may award the contract to the next best value Bidder or call for new proposals from the interested Bidders.

In such a case, the Purchaser shall invoke the PBG of the most responsive Bidder.

8.8 Terms & Conditions Applicable Post Award of Contract

8.8.1 Key Performance Measurements

1) Unless specified by Purchaser to the contrary, the Bidder shall perform the Services and carry out the scope of work in accordance with the terms of this Contract, Scope of Work, Service Specifications and Service Levels as laid down in this tender.

2) If the Contract, Scope of Work, Service Specification includes more than one document, then unless Purchaser specifies to the contrary, the latter in time shall prevail over a document of earlier date to the extent of any inconsistency.

3) Purchaser reserves the right to amend any of the terms and conditions in relation to the Contract / Service Specifications upon agreement with the System Integrator and may issue any such directions which are not necessarily stipulated therein if it deems necessary for the fulfilment of the Schedule of Requirements.

4) If any such change causes an increase or decrease in the cost of, or the time required for the Bidder’s performance of any part of the work under the Contract, whether changed or not changed by the order, an equitable adjustment shall be made in the Contract Value or time schedule, or both, and the Contract shall accordingly be amended. Any claims by the Bidder for adjustment under this Clause must be asserted within thirty (30) days from the date of the Bidder’s receipt of Purchaser’s changed order.

8.8.2 Commencement and Duration of the Contract

1) The Master Service Agreement shall come into effect on the Effective Date and shall continue, unless terminated earlier in accordance with the provisions hereof, for a period of 1 year after Go-live of the Project. The CET Cell would eventually decide on one of the following options for managing the Project beyond the Contract Period.
   a. Replace – Appoint a different agency for undertaking system maintenance beyond the Contract Period through a fresh tender.
   b. Transfer - The Bidder will transfer the Project including all Assets to the CET Cell and the CET Cell will manage the operations on its own.

2) In the eventuality that no such alternate arrangements are in place for managing the Project at the end of the Contract period, the selected Bidder will be required to continue delivering services as required under this Project, at the same terms and conditions, even beyond the Contract period (such period not exceeding 1 year) till alternate arrangement is done by the Department to manage the operations. The decision to extend the Contract with the Bidder (if applicable) will be communicated to the Bidder at the discretion of CET Cell.

8.8.3 Transition Management

1) Post the contract period, the Bidder is expected to provide a smooth handover of all the knowledge material and assets to Purchaser at no transfer cost.

2) Post the contract period, if a new vendor is selected by Purchaser for the next contract, the Bidder is expected to provide adequate knowledge transfer and training to the new vendor over a period of contract. The knowledge transfer/training shall necessarily cover details on
   a) Design, Development, Operations and Maintenance aspects
   b) Database architecture and management
c) Nature and type of incidents and resolutions including any FAQs and reference material
d) Effective resolution mechanisms, if any, etc.

8.8.4 Purchaser's Right of Monitoring, Inspection and Periodic Audit

1) Purchaser reserves the right to inspect and monitor/assess the progress / performance / maintenance of
the systems pertaining to the contract at any time during the course of the Contract. Purchaser may demand
and upon such demand being made, the Purchaser shall be provided with any document, data, material or any other information which it may require, to enable it to assess the progress of the
project.
2) Purchaser shall also have the right to conduct, either itself or through another agency as it may deem fit,
an audit to monitor the performance by the Bidder of its obligations/functions in accordance with the
standards committed to or required by Purchaser and the Bidder undertakes to cooperate with and
provide to Purchaser/ any other agency appointed by Purchaser, all documents and other details or
information as may be required by them for this purpose. Any deviations or contravention identified as a
result of such audit/assessment would need to be rectified by the Bidder failing which Purchaser may,
without prejudice to any other rights that it may have issue a notice of default.

8.8.5 Intellectual Property Rights CET & CAP

1) Each Party owns and will continue to own all rights, title and interest in and to the intellectual property
rights/interest that it owns prior to this Agreement or which each Party created or acquired independently
of its obligations pursuant to this Agreement. Department IPR shall only be used with its prior written
consent only. Neither Party may use the Intellectual Property of the other Party without the prior written
consent of the other Party.
2) Intellectual Property rights and source code of the CET application, examination conduction software,
Mock Test and any other source code incidentally generated/developed in connection with CET
Examination will be property of CET CELL. The source code of the applications/software developed for
CAP process and any other source code incidentally generated/developed in connection with CAP
process will be property of CET CELL. The Purchaser shall own the examination templates created for
CET CELL and have a right in perpetuity to use all newly created Intellectual Property Rights which have
been developed solely during execution of this Contract, including but not limited to all processes,
products, specifications, reports, drawings and other documents which have been newly created and
developed by the Selected Agency solely during the performance of Services and for the purposes of
interalia use or sub-license of such Services under this Contract. The Selected Agency undertakes to
disclose all such Intellectual Property Rights arising in performance of the Services to the Purchaser and
execute all such agreements/documents and file all relevant applications, effect transfers and obtain all
permits and approvals that may be necessary in this regard to effectively transfer and conserve the
Intellectual Property Rights to Purchaser without any additional cost to Purchaser.
3) Notwithstanding anything to the contrary contained herein, the Selected Agency will defend, indemnify
and hold harmless the Purchaser against any suit or claim brought by a third party for infringement of
copyright or trade secrets
4) Any reports prepared by Agency during the Term of the agreement and extension thereof, shall belong
to department and shall remain sole and exclusive property of department and all the Intellectual Property
Rights in respect of the same shall vest with department.

8.8.6 Information Security

1) The Bidder / Bidder’s Team shall not carry any written/printed document, layout diagrams, CDs, DVDs,
hard disk, storage tapes, other storage devices or any other goods /material proprietary to Purchaser
into / out of the Purchaser's office location without written permission from the Purchaser.
2) The Bidder / Bidder’s Team shall not destroy any unwanted documents, defective tapes/media present
at Purchaser’s office location on their own. All such documents, tapes/media shall be handed over to the Purchaser.

3) All documentation and media shall be properly identified, labeled and numbered by the Bidder. Bidder shall keep track of all such items and provide a summary report of these items to the Purchaser on a monthly basis.

4) The Bidder / Bidder’s Team shall follow Purchaser’s Information Security policy, if any. Access to Purchaser and Purchaser’s data and systems, Email and Internet facility by the Bidder / Bidder’s team at Purchaser’s office location shall be in accordance with the security and access policies set by the Purchaser, if any. Bidder shall, upon termination of this agreement for any reason, or upon demand by Purchaser, whichever is earliest, return any and all information provided to Bidder by Purchaser, including any copies or reproductions, both hardcopy and electronic.

**8.8.7 Records of Contract Documents**

1) The Bidder shall at all time make and keep sufficient copies of the process manuals, training manuals operating procedures, specifications, Contract documents and any other documentation at head quarter/division/circle level to fulfill his duties under the Contract.

2) The Bidder shall keep at Purchaser’s head quarter at least three copies of each and every specification and contract document, in excess of his own requirement and those copies shall be available at all times for use by Purchaser’s Representative and by any other person authorized by Purchaser’s Representative. Where one or more of Bidder’s offices are deployed in the works, all requirements of the Contract and Bidder’s obligation under the Contract shall apply equally at each office so deployed.

**8.8.8 Ownership and Retention of Documents**

1) Purchaser shall own the Documents, prepared by or for the Bidder arising out of or in connection with this Contract.

2) Forthwith upon expiry or earlier termination of this Contract and at any other time on demand by Purchaser, the Bidder shall deliver to Purchaser all documents provided by or originating from Purchaser and all Documents produced by or from or for the Bidder in the course of performing the Services, unless otherwise directed in writing by Purchaser at no additional cost. The Bidder shall not, without the prior written consent of Purchaser store, copy, distribute or retain any such Documents.

**8.8.9 Confidentiality**

1) The Bidder shall not use Confidential Information, the name or the logo of Purchaser and Purchaser except for the purposes of providing the Service as specified under this contract;

2) The Bidder may only disclose Confidential Information in the following circumstances:
   a) with the prior written consent of Purchaser;
   b) to a member of the Bidder’s Team (“Authorized Person”) if:
      • the Authorized Person needs the Confidential Information for the performance of obligations under this contract;
      • the Authorized Person is aware of the confidentiality of the Confidential Information and is obliged to use it only for the performance of obligations under this contract. The Bidder shall do everything reasonably possible to preserve the confidentiality of the Confidential Information to the satisfaction of Purchaser.

3) The Bidder shall notify Purchaser promptly if it is aware of any disclosure of the Confidential Information otherwise than as permitted by this Contract or with the authority of Purchaser.

4) The Bidder shall be liable to fully recompense Purchaser for any loss of revenue arising from breach of confidentiality. Purchaser reserves the right to adopt legal proceedings, civil or criminal, against the Bidder in relation to a dispute arising out of breach of obligation by the Bidder under this clause.
8.8.10 Suspension of Work

1) The Bidder shall, if ordered in writing by Purchaser’s Representative, temporarily suspend the works or any part thereof for such a period and such a time as ordered. The Bidder shall not be entitled to claim compensation for any loss or damage sustained by him by reason of temporary suspension of the Works as aforesaid. An extension of time for completion, corresponding with the delay caused by any such suspension of the works as aforesaid shall be granted to the Bidder, if request for same is made and that the suspension was not consequent to any default or failure on the part of the Bidder. In case the suspension of works, is not consequent to any default or failure on the part of the Bidder and lasts for a period of more than 2 months, the Bidder shall have the option to request Purchaser to terminate the Contract with mutual consent.

2) In the event that Purchaser suspends the progress of work for any reason not attributable to the Bidder for a period in excess of 30 days in aggregate, rendering the Bidder to extend his performance guarantee then Purchaser shall bear only the cost of extension of such bank guarantee for such extended period restricted to the normal bank rates as applicable in the international banking procedures subject to the Bidder producing the requisite evidence from the bank concerned.

3) If the Bidder is not able to comply with the contractual obligations, the EMD/Bank Guarantee for Contract Performance will be forfeited in full. Besides legal action shall be taken separately.

8.8.11 Penalty Calculation Process

8.8.11.1 Any unjustified and unacceptable delay beyond the delivery, installation and commissioning schedule as per contract will render the Bidder liable for penalty or liquidity damages as per the rates mentioned in “Service Level Agreement” subject to a limit of 10% of the total contract value of CET Process.

8.8.11.2 Any unjustified and unacceptable delay beyond the delivery as per the schedule declared, any mistake/error in the various stages of CAP process will render the Bidder liable for penalty or liquidity damages as per the rates mentioned in “Service Level Agreement”.

8.8.12 Payment Process

1) Purchaser shall make payments only to the Bidder at the times and in the manner set out in the Payment schedule as specified later in this RFP, subject always to the fulfillment by the Bidder of the obligations herein.

2) Purchaser shall make all payments under this Contract, as set out in the Payment clause to the Bidder only and shall not be liable to make any payments or for any other related obligation under this contract to any other party including but not limited to the Bidder’s subcontractors or any other member of Bidder’s Team or any third party engaged by the Bidder in any way connected with the discharge of the Bidder’s obligation under the Contract and in any manner whatsoever.

3) All payments agreed to be made by Purchaser to the Bidder in accordance with the Bid shall be inclusive of all statutory levies, duties, taxes and other charges whenever levied/applicable including costs of maintenance, if any and Purchaser shall not be liable to pay any such levies/other charges under or in relation to this Contract and/or the Services.

4) Payment shall be paid at the times and in the manner set out in the Payment schedule as specified under RFP: Payment Schedule, against value of contract. GST shall be charged on actualls as per the applicable rates. shall there be a change in applicable taxes/levies, the prevailing taxes/levies on the date of billing would prevail. GST will be reimbursed on actualls after submission of proof of payment.

5) In case of change in taxes under change in law, appropriate parties shall be passed the benefit of the same over and above the contract value. No invoice for extra work/change order on account of change order will be submitted by the Bidder unless the said extra work /change order has been approved by the
Purchaser as per mutually agreed rates in writing in accordance with Clause on Change order.

6) In the event of Purchaser noticing at any point of time that any amount has been disbursed wrongly to the Bidder or any other amount is due from the Bidder to the Purchaser, the Purchaser shall, after notifying the Authorized Representative of the Bidder in writing and without prejudice to its rights, deduct such amount from any payment due to the Bidder or recover such amounts by other means. The details of such recovery, if any, will be intimated to the Bidder within a stipulated time frame as agreed to by both the parties.

7) In the event of the Bidder noticing at any point of time that there has been short payment by the Purchaser on any invoice, the Bidder shall bring it to the record of the Authorized Representative of the Purchaser. The amount due to the Bidder will be released through a fresh invoice or as mutually agreed to by both the parties.
8.8.13 Deductions

All payments to the Bidder shall be subject to the deductions of tax at source under Income Tax Act, and other taxes and deductions as provided for under any law, rule or regulation. All costs, damages or expenses which Purchaser may have paid or incurred, for which under the provisions of the Contract, the Bidder is liable, the same shall be deducted by Purchaser from any dues to the Bidder. All payments to the Bidder shall be made after making necessary deductions as per terms of the Contract and recoveries towards facilities, if any, provided by the Purchaser to the Bidder on chargeable basis.

8.8.14 Duties, Taxes and Statutory levies

1) The Bidder shall bear all personnel taxes levied or imposed on its personnel, subcontractor(s), consultants, or any other member of Bidder’s Team, etc. on account of payment received under this Contract. The Bidder shall bear all corporate taxes, levied or imposed on the Bidder on account of payments received by it from the Purchaser for the work done under this Contract.

2) Bidder shall bear all taxes and duties etc. levied or imposed on the Bidder under the Contract.

3) If there is any increase / reduction in taxes / duties due to any reason whatsoever, after Notification of Award, the same shall be passed on to the Purchaser.

4) The Bidder shall be solely responsible for the payment /fulfillment of its tax liabilities and obligations under the Income Tax Act and other such laws in force and the Purchaser shall not bear responsibility for the same. Bidder shall indemnify Purchaser against any and all liabilities or claims arising out of this Contract for such taxes including interest and penalty any such Tax Authority may assess or levy against the Purchaser/Bidder.

5) The Purchaser shall if so required by applicable laws in force, at the time of payment, deduct income tax payable by the Bidder at the rates in force, from the amount due to the Bidder and pay to the concerned tax authority directly.

8.8.15 Protection and Limitations

The warranty period for the systems shall be taken into account from the date of completion of supply of products, its successful installation/commissioning and acceptance by Purchaser, including free spare parts, kits etc. Failure to provide satisfactory warranty service/support shall attract penalties.

8.8.16 Representation and Warranties

1) In order to induce the Purchaser to enter into this Contract, the Bidder hereby represents and warrants as of the date hereof, which representations and warranties shall survive the term and termination hereof, the following:

a) That the selected Bidder has the power and the authority that would be required to enter into this Contract and the requisite experience, the technical know-how and the financial wherewithal required to successfully execute the terms of this contract and to provide services sought by the Purchaser under this contract

b) That the Bidder is not involved in any major litigation or legal proceedings, pending, existing, and potential or threatened, that may have an impact of affecting or compromising the performance or delivery of Services under this Contract.

c) That the representations and warranties made by the Bidder in its Bid, Tender and Contract are and shall continue to remain true and correct throughout the term of this Contract and Bidder shall fulfill all the requirements as are necessary for executing the obligations and responsibilities as laid down in the Contract and the Tender and unless the Purchaser specifies to the contrary, the Bidder shall be bound by all the terms of the Bid.
d) That the Bidder and its team has the professional skills, personnel, infrastructure and resources/authorizations that are necessary for providing all such services as are necessary to fulfill the scope of work stipulated in the Tender and this Contract.

e) That the Bidder shall ensure that all assets/ components including but not limited to equipment, software, licenses, processes, documents, etc. installed, developed, procured, deployed and created during the term of this Contract are duly maintained and suitably updated, upgraded, replaced.

f) That the Bidder /Bidder’s Team shall use such assets of the Purchaser as the Purchaser may permit for the sole purpose of execution of its obligations under the terms of the Bid, Tender or this Contract. The Bidder shall however, have no claim to any right, title, lien or other interest in any such property, and any possession of property for any duration whatsoever shall not create any right in equity or otherwise, merely by fact of such use or possession during or after the term hereof.

g) That the Bidder shall procure all the necessary permissions and adequate approvals and licenses for use of various software and any copyrighted process/product free from all claims, titles, interests and liens thereon and shall keep the Purchaser indemnified in relation thereto.

h) That the execution of the scope of work and the Services herein is and shall be in accordance and in compliance with all applicable laws.

i) That the Bidder has the corporate power to execute, deliver and perform the terms and provisions of this Contract and has taken all necessary corporate action to authorize the execution, delivery and performance by it of the Contract.

j) That all conditions precedent under the Contract have been satisfied.

k) That neither the execution and delivery by the Bidder /Bidder’s Team of the Contract nor the Bidder’s /Bidder Team’s compliance with or performance of the terms and provisions of the Contract

   i) will contravene any provision of any Applicable Law or any order, writ, injunction or decree of any court or Governmental Authority binding on the Bidder,

   ii) will conflict or be inconsistent with or result in any breach of any or the terms, covenants, conditions or provisions of, or constitute a default under any agreement, contract or instrument to which the Bidder is a party or by which it or any of its property or assets is bound or to which it may be subject

   iii) will violate any provision of the Memorandum and Articles of Association of the Bidder.

l) That the Bidder certifies that all registrations, recordings, filings and notarizations of the Contract and all payments of any tax or duty, including but not limited to stamp duty, registration charges or similar amounts which are required to be effected or made by the Bidder which is necessary to ensure the legality, validity, enforceability or admissibility in evidence of the Contract have been made.

m) That the Bidder confirms that there has not been and shall not occur any execution, amendment or modification of any agreement/contract without the prior written consent of the Purchaser, which may directly or indirectly have a bearing on the Contract or the project.

n) That the Bidder owns or has good, legal or beneficial title, or other interest in, to the property, assets and revenues of the Bidder on which it grants or purports to grant or create any interest pursuant to the Contract, in each case free and clear of any encumbrance and further confirms that such interests created or expressed to be created are valid and enforceable.

o) That the Bidder owns, has license to use or otherwise has the right to use, free of any pending or threatened liens or other security or other interests all Intellectual Property Rights, which are required or desirable for the performance of the project under this contract and regarding the same the Bidder does not, so far as the Bidder is aware, in carrying on its business and operations, infringe any Intellectual Property Rights of any person. So far as the Bidder is aware, none of the Intellectual Property Rights owned or enjoyed by the Bidder or which the Bidder is licensed to use, which are material in the context of the Bidder’s business and operations for the performance of this contract are being infringed nor, so far as the Bidder is aware, is there any infringement or threatened infringement of those Intellectual
Property Rights licensed or provided to the Bidder by any person. All Intellectual Property Rights (owned by the Bidder or which the Bidder is licensed to use) required by the Bidder for the performance of the contract are valid and subsisting. All actions (including registration, payment of all registration and renewal fees) required to maintain the same in full force and effect have been taken thereon and shall keep the Purchaser indemnified in relation thereto. The remedy for any breach of this Clause shall be the indemnity set forth in clause of Intellectual Property Rights.

p) That the Bidder agrees to incorporate, within the contract value, all hardware configuration, software changes, upgrades and patches to the system, announced by him from time to time keeping in view the advancement in technology, shortcomings of the system and any changes required for improving the overall efficiency of the system during the contract period.

q) That the Bidder shall provide adequate and appropriate support and participation, on a continuing basis, in tuning all supplied hardware and software to meet the requirements of the applications.

2) For the specified SLAs, the Bidder shall additionally warrant the following conditions:

a) The Bidder has full capacity and authority and all necessary approvals to enter into and perform its obligations under the SLA and to provide the Services;

b) The SLA has been executed by a duly authorized representative of the Bidder;

c) The Bidder is experienced in managing and providing works similar to the Services and that it will perform the Services with all due skill, care and diligence in compliance with the applicable laws;

d) The Services will be provided and rendered by appropriately qualified, trained and experienced personnel;

e) Bidder has and will have all necessary licenses, approvals, consents of third parties and all necessary technology, hardware and software to enable it to provide the Services;

f) The Services will be supplied in conformance with all applicable laws, enactments, orders and regulations;

g) Bidder will use its reasonable endeavors to ensure that the equipment, software and hardware supplied and/or used in the course of the provision of the Services, are updated, new, operational and functional; and

h) If Bidder uses, in the course of the provision of the Services, components, equipment, software and hardware manufactured by any third party which are embedded in the Deliverables or are essential for the successful use of the Deliverables, it will pass through third party manufacturer's warranties relating to those components, equipment, software and hardware to Purchaser to the extent possible. In the event that such warranties cannot be enforced by the Purchaser, the Bidder will enforce such warranties on behalf of the Purchaser and pass on to the Purchaser, the benefit of any other remedy received in relation to such warranties.

8.8.17 Limitation of Liability

a) Neither Party shall be liable to the other Party for any indirect or consequential loss or damage (including loss of revenue and profits) arising out of or relating to the Contract.

b) Except in the case of Gross Negligence or Willful Misconduct on the part of the Bidder/Bidder's Team or on the part of any person or firm acting on behalf of the Bidder executing the work or in carrying out the Services, the Bidder, with respect to damage caused by the Bidder including to property and/or assets of the Purchaser or of any of Purchaser's vendors shall regardless of anything contained herein, not be liable for any direct loss or damage that exceeds (A) the Contract Value or (B) the proceeds the Bidder may be entitled to receive from any insurance maintained by the Bidder to cover such a liability, whichever of (A) or (B) is higher.

- For the purposes of the Clause (b) of this section, "Gross Negligence" means any act or failure to act by a Party which was in reckless disregard of or gross indifference to the obligations of the Party under the Contract and which causes harmful consequences to life, personal safety or
real property of the other Party which such Party knew, or would have known if it was acting as a reasonable person, would result from such act or failure to act. Notwithstanding the foregoing, Gross Negligence shall not include any action taken in good faith for the safeguard of life or property.

- "Willful Misconduct" means an intentional disregard of any provision of this Contract which a Party knew or shall have known if it was acting as a reasonable person, would result in harmful consequences to life, personal safety or real property of the other Party but shall not include any error of judgment or mistake made in good faith.

c) This limitation of liability slated in multiple sections of the RFP, shall not affect the Bidder liability, if any, for direct damage by Bidder/Bidder's Team to a Third Party's real property, tangible personal property or bodily injury or death caused by the Bidder/Bidder's Team or any person or firm/company acting on behalf of the Bidder in executing the work or in carrying out the Services."

8.8.18 Data protection and use

1) In the course of providing the Services the Bidder may be compiling, processing and storing proprietary Project Data relating to the Purchaser.
2) The Bidder and Purchaser are responsible for complying with its respective obligations under the applicable data protection laws and regulations governing the Project Data.
3) As a processor of Project Data, the Bidder will process Project Data in accordance with the terms of this Tender.
4) The Bidder shall not transfer any Project Data to any person or organization unless otherwise authorized by the Purchaser in this regard.
5) Upon reasonable written request from a Party, the other Party will provide the requesting Party with such information that it has regarding the Project, its Data and its processing which is necessary to enable the requesting party to comply with its obligations under the applicable data protection law or regulation.

8.8.19 Audit, access and reporting

1) Bidder shall monitor progress of all the activities related to the execution of this contract and shall submit to the Purchaser, at no extra cost, progress reports with reference to all related work, milestones and their progress during the implementation phase on a weekly basis, fortnightly and monthly basis.
2) Post completion of each Phase, the Bidder shall submit to the Purchaser, MIS reports as an ongoing basis.
3) Bidder shall ensure MIS reporting as per defined service levels mentioned in the RFP.
4) Formats for all reports and their dissemination mechanism shall be discussed and finalized at the Kick-Off meeting.
5) The Purchaser on mutual agreement between both parties may change the formats, periodicity and dissemination mechanism for such reports.
6) Periodic meetings shall be held between the representatives of the Purchaser and the Bidder shall be held as per time schedules mutually agreed, bidder shall ensure that the respective solution teams involved in the execution of work are part of such meetings.
7) All the services and manpower to be provided / deployed by the Bidder under the Contract and the manner and speed of execution and maintenance of the work and services are to be conducted in a manner to the satisfaction of Purchaser's representative in accordance with the Contract.
8) The Purchaser reserves the right to inspect and monitor/assess the progress/performance of the work / services at any time during the course of the Contract. The Purchaser may demand and upon such demand being made, the Bidder shall provide documents, data, material or any other information which the Purchaser may require, to enable it to assess the progress/performance of the work / service.
9) At any time during the course of the Contract, the Purchaser shall also have the right to conduct, either itself or through another agency as it may deem fit, an audit to monitor the performance by the Bidder of its
obligations/functions in accordance with the standards committed to or required by the Purchaser and the
Bidder undertakes to cooperate with and provide to the Purchaser/any other agency appointed by the
Purchaser, all Documents and other details as may be required by them for this purpose. Such audit shall
not include Bidder's books of accounts.
10) shall the rate of progress of the works or any part of them at any time fall behind the stipulated time for
completion or is found to be too slow to ensure completion of the works by the stipulated time, or is in
deviation to Tender requirements/standards, the Purchaser's representative shall so notify the Bidder in
writing.
11) The Bidder shall reply to the written notice giving details of the measures he proposes to take to expedite
the progress so as to complete the works by the prescribed time or to ensure compliance to Tender
requirements. The Bidder shall not be entitled to any additional payment for taking such steps. If at any
time it shall appear to the Purchaser or Purchaser's representative that the actual progress of work
does not conform to the approved programme the Bidder shall produce at the request of the Purchaser's
representative a revised programme showing the modification to the approved programme necessary to
ensure completion of the works within the time for completion or steps initiated to ensure compliance to
the stipulated requirements
12) The submission seeking approval by the Purchaser or Purchaser's representative of such programme shall
not relieve the Bidder of any of his duties or responsibilities under the Contract.
13) In case during execution of works, the progress falls behind schedule or does not meet the Tender
requirements, Bidder shall deploy extra manpower/resources to make up the progress or to meet the
Tender requirements. Programme for deployment of extra manpower/resources will be submitted to the
Purchaser for its review and approval. All time and cost effect in this respect shall be borne, by the Bidder
within the contract value.

8.8.20 Bidder's obligation

1) The Bidder's obligations shall include all the activities as specified by the Purchaser in the Scope of Work
and other sections of the Tender and Contract and changes thereof to meet the Purchaser's objectives
and operational requirements. It will be the Bidder's responsibility to ensure the proper and successful
implementation, performance and continued operation of the proposed solution in accordance with and
in strict adherence to the terms of his Bid, the Tender and the Contract.
2) Security and safety of data will be responsibility of the selected bidder and after completion of the project
complete data for all the application software will be handed over to department and department
reserves the right to validate the data and selected bidder will provide necessary assistance. However, the
physical security of infrastructure will be the responsibility of the Purchaser.
3) Purchaser reserves the right to interview the personnel proposed that will be deployed as part of the
project team. If found unsuitable, the Purchaser may reject the deployment of the personnel.
4) Purchaser reserves the right to require changes in personnel which shall be communicated to the Bidder.
Bidder with the prior approval of the Purchaser may make additions to the project team. Bidder shall
provide the Purchaser with the resume of Key Personnel and provide such other information as the
Purchaser may reasonably require. The Purchaser also reserves the right to interview the personnel and
reject, if found unsuitable. In case of change in its team members, for any reason whatsoever, Bidder shall
also ensure that the exiting members are replaced with at least equally qualified and professionally
competent members.
5) In case of change in its team members, Bidder shall ensure a reasonable amount of time overlap in
activities to ensure proper knowledge transfer and handover/takeover of documents and other relevant
materials between the outgoing and the new member.
6) The Bidder shall ensure that the Bidder's Team is competent, professional and possesses the requisite
qualifications and experience appropriate to the task they are required to perform under this Contract.
7) The Bidder shall ensure deployment of team members at the premises of CET CELL if requested by CET Cell officials.

8) The Bidder shall ensure that all the personnel identified for this project have high level of integrity. Bidder shall undertake necessary due diligence to ensure that the personnel have high standard of trustworthiness. In addition, the Bidder would also get the background verification checks carried out for the personnel deployed, & will submit an undertaking verifying the same, as and when demanded by the Purchaser. Purchaser reserves the right to carry out background verification beyond the undertaking submitted by Bidder.

9) The Bidder shall be fully responsible for deployment / installation / development and integration of all the software components and resolve any problems / issues that may arise due to integration of components and post go live.

10) The Bidder shall ensure that the COTS OEMs supply the software applications and shall support the Bidder in the installation / deployment, integration, roll-out and maintenance of these applications during the entire period of contract.

11) All the software licenses that the Bidder proposes shall perpetual software licenses i.e. one-time license cost shall cover all future updates & support. The software licenses shall not be restricted based on location and the Purchaser shall have the flexibility to use the software licenses for other requirements if required. Any Email solution or software as a service solution shall provided for the entire contract period.

12) The Bidder shall ensure that the Annual Maintenance support for the software components is provided for the period from date of deployment of the software component till the end of contract. Annual Maintenance support shall include patches, updates and upgrades of the software. Bidder shall ensure that there is a comprehensive onsite warranty / support arrangement for the aforementioned period with all the OEMs or transfer in favor of purchaser for the benefit of any warranties given by OEMs.

13) The Bidder shall ensure that he conducts the preventive maintenance on a monthly basis and break-fix maintenance in accordance with the best practices followed in the industry.

14) The Bidder shall ensure that the documentation and training services associated with the components shall be provided by the OEMs without any additional cost to the Purchaser and shall updated from time to time.

15) The Bidder shall be responsible on an ongoing basis for coordination with other vendors and agencies of the Purchaser in order to resolve issues and oversee implementation of the same. The Bidder shall also be responsible for resolving conflicts between vendors in case of borderline integration issues.

16) Bidder shall support the purchases in all the 3rd party integrations associated with the project as and when required at no additional cost.

17) The Bidder shall perform the Services in accordance with the Applicable Laws and shall take all practicable steps to ensure that all its Personnel and agents, comply with the Applicable Laws.

8.8.20.1 Project Charter

1) Within 2 weeks of Effective date of the Contract, the Bidder shall submit to the Purchaser for its approval a detailed Project Charter with details of the programme showing the sequence, procedure and method in which he proposes to carry out the works as stipulated under Scope of Work of this Tender whenever reasonably required by the Purchaser’s Representative furnish in writing the arrangements and methods proposed to be made for carrying out the works. The Charter so submitted by the Bidder shall conform to the requirements and timelines specified in the Contract. The Purchaser and the Bidder shall discuss and agree upon the work procedures to be followed for effective execution of the works, which the Bidder intends to deploy and shall be clearly specified. The Project Charter shall include but not limited to project organization, communication structure, proposed staffing, roles and responsibilities, processes.
and tool sets to be used for quality assurance, security and confidentiality practices in accordance with industry best practices, project plan and delivery schedule in accordance with the Contract.

2) If the Bidder’s work plans necessitate a disruption/shutdown in Purchaser’s operation, the plan shall be mutually discussed and developed so as to keep such disruption/shutdown to the barest unavoidable minimum. Any time and cost arising on account of failure of the Bidder to bring its work plans to the notice of the Purchaser shall be to his account.

8.8.20.2 Bidder’s Organization

1) The Bidder shall provide for minimum manpower resources required for execution of work and provision of services under this contract.

2) The Bidder shall ensure knowledge transfer from the outgoing resource to the incoming resource and adequate hand-holding period and training for the incoming resource in order to maintain the continued level of service.

3) All manpower resources deployed by the Bidder for execution of this contract must strictly adhere to the attendance reporting procedures and make their services available as agreed upon for the entire reporting time period at the Purchaser’s office location.

4) The Bidder shall be responsible for the deployment, transportation, accommodation and other requirements of all its employees required for the execution of the work and provision of services for all costs/charges in connection thereof.

5) The Bidder’s team, if, in the opinion of the Purchaser’s Representative the person in question has misconducted or his/her deployment is otherwise considered undesirable by the Purchaser’s Representative shall forwith remove and shall not again deploy the person without the written consent of the Purchaser’s Representative.

6) The Purchaser’s Representative shall state to the Bidder in writing his reasons for any request or requirement pursuant to this Clause.

7) The Bidder shall promptly replace every person removed, pursuant to this section, with a competent substitute, and at no extra cost to the Purchaser.

8.8.20.3 Adherence to safety procedures, rules regulations and restrictions

1) Bidder’s Team shall comply with the provision of all laws including labour laws, rules, regulations and notifications issued there under from time to time. All safety and labour laws enforced by statutory agencies and by Purchaser shall be applicable in the performance of this Contract and Bidder’s Team shall abide by these laws.

2) The Bidder shall take all measures necessary or proper to protect the personnel, work and facilities and shall observe all reasonable safety rules and instructions. Bidder’s Team shall adhere to all security requirement/regulations as per the law and as per the regulations/guidelines issued by the relevant authorities/agencies apart from any specific requirement of the Purchaser during the execution of the work. The list of additional security requirements/regulations would be shared with the selected Bidder.

3) The Bidder shall report as soon as possible any evidence, which may indicate or is likely to lead to an abnormal or dangerous situation and shall take all necessary emergency control steps to avoid such abnormal situations.
8.8.20.4 Statutory Requirements
During the tenure of this Contract nothing shall be done by the Bidder or his team in contravention of any law, act and/ or rules/regulations, there under or any amendment thereof governing inter-alia customs, stowaways, foreign exchange etc. and shall keep Purchaser indemnified in this regard.

8.8.20.5 Bidder's obligation – OEM
1) The Bidder must pass on the standard OEMs’ warranty which comes bundled with the purchased software wherever it is superior to the warranty specified in this tender document.
2) Bidder has to provide documentary evidence for back-to-back support agreement with the respective OEM along with the OEM.
3) The Bidder undertakes to ensure the maintenance of the acceptance criteria /standards in respect of the systems

8.8.21 Purchaser’s Obligation
1) Purchaser or his/her nominated representative shall act as the nodal point for implementation of the contract and for issuing necessary instructions, approvals, commissioning, acceptance certificates, payments etc. to the Bidder.
2) Purchaser shall ensure that timely approval is provided to the Bidder as and when required, which may include approval of project plans, implementation methodology, design documents, specifications, or any other document necessary in fulfillment of this contract.
3) The Purchaser’s Representative shall interface with the Bidder, to provide the required information, clarifications, and to resolve any issues as may arise during the execution of the Contract. Purchaser shall provide adequate cooperation in providing details, coordinating and obtaining of approvals from various governmental agencies, in cases, where the intervention of the Purchaser is proper and necessary.
4) Purchaser may provide on Bidder’s request, particulars/information/ or documentation that may be required by the Bidder for proper planning and execution of work and for providing services covered under this contract and for which the Bidder may have to coordinate with respective vendors.
5) Purchaser shall provide to the Bidder only seating space, for up to 5 people, at the Purchaser's office location. Persons deputed by the Bidder have to observe the norms & code of conduct of the Purchaser’s organisation.

8.8.22 Indemnity
1) The Bidder shall indemnify the Purchaser from and against any costs, loss, damages, expense, claims including those from third parties or liabilities of any kind howsoever suffered, arising or incurred inter alia during and after the Contract period out of:
   a) any negligence or wrongful act or omission by the Bidder or the Bidder’s Team or any third party associated with Bidder in connection with or incidental to this Contract; or
   b) Any breach of any of the terms of the Bidder’s Bid as agreed, the Tender and this Contract by the Bidder, thesis’ Team or any third party.
   c) Any infringement of patent, trademark/copyright or industrial design rights arising from the use of the supplied goods and related services or any part thereof.
2) The Bidder shall also indemnify the Purchaser against any privilege, claim or assertion made by a third party with respect to right or interest in, ownership, mortgage or disposal of any asset, property, and movable or immovable as mentioned in any Intellectual Property Rights, licenses and permits.

8.8.23 Termination
Purchaser reserves the right to cancel the contract placed on the selected Bidder and recover expenditure
incurred by Purchaser under the following circumstances: -
1) The selected Bidder commits a breach of any of the terms and conditions of the bid.
2) The Bidder goes into liquidation, voluntarily or otherwise.
3) If the selected Bidder fails to complete the assignment as per the time lines prescribed in the RFP and the extension if any allowed, it will be a breach of contract. The Purchaser reserves its right to cancel the order in the event of delay and forfeit the bid security as liquidated damages for the delay.
4) If deductions on account of penalties & liquidated damages exceeds more than 10% of the total contract price.
5) In case the selected Bidder fails to deliver the quantity as stipulated in the delivery schedule, Purchaser reserves the right to procure the same or similar product from alternate sources at the risk, cost and responsibility of the selected Bidder.
6) After award of the contract, if the selected Bidder does not perform satisfactorily or delays execution of the contract, Purchaser reserves the right to get the balance contract executed by another party of its choice by giving 15 days notice for the same. In this event, the selected Bidder is bound to incur the additional expenditure, which Purchaser may have to incur in executing the balance contract. This clause is applicable, if for any reason the contract is cancelled.
7) Purchaser reserves the right to recover any dues payable by the selected Bidder from any amount outstanding to the credit of the selected Bidder, including the pending bills and/or invoking the bank guarantee under this contract.
8) The Bidder shall not assign or sublet the contract or any part of it. In case of noncompliance of this Para, the contract may be cancelled and the damages, if any, may be recovered from the contractor.
9) The Bidder acknowledges that he has fully acquainted himself with all conditions and circumstances under which he has to complete the Project with all the terms, clauses, conditions, specifications and other details of this contract.
10) In the event of termination of the Contract due to any cause whatsoever, Purchaser shall be entitled to impose any such obligations and conditions and issue any clarifications as may be necessary to ensure an efficient transition and effective business continuity of the Service(s) which the Bidder shall be obliged to comply with and take all available steps to minimize loss resulting from that termination/breach, and further allow the next successor to take over the obligations of the erstwhile Bidder in relation to the execution/continued execution of the scope of the Contract.
11) Nothing herein shall restrict the right of Purchaser to invoke the Purchaser Guarantee and other guarantees and pursue such other rights and/or remedies that may be available Purchaser under law or otherwise.
12) The termination hereof shall not affect any accrued right or liability of either Party nor affect the operation of the provisions of the Contract that are expressly or by implication intended to come into or continue in force on or after such termination.

8.8.24 Liquidated Damages
1) Notwithstanding Purchaser’s right to cancel the order, liquidated damages for nonconformance to the SLAs mentioned in the RFP document will be charged as per the penalties, subject to a maximum of 10% of the total value of the Contract.
2) Purchaser reserves its right to recover these amounts by any mode such as adjusting from any payments to be made by Purchaser to the Bidder.

8.8.25 Force Majeure
Force Majeure shall mean any event beyond the reasonable control of the department or of the Agency, as the case may be, and which is unavoidable notwithstanding the reasonable care of the party affected.
1) Any delay in or failure of the performance shall not constitute default hereunder or give rise to any claims for damage, if any, to the extent such delays or failure of performance is caused by occurrences such as

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acts of god or an enemy, expropriation or confiscation of facilities by Government authorities, acts of war, rebellion, sabotage or fires, floods, explosions, terrorist activities, military operations, riots, epidemics, civil commotions, strikes etc. The Selected Agency shall keep records of the circumstances referred to above and bring these to the notice of Purchaser or department in writing immediately on such occurrences. The amount of time, if any, lost on any of these counts shall not be counted for the Contract period. The decision of the Department arrived at after consultation with the Selected Agency, shall be final and binding. Such a determined period of time will be extended by the department to enable the Selected Agency to complete the job within such extended period of time.

2) If a Selected Agency is prevented or delayed from performing any of its obligations under the Contract with Purchaser by Force Majeure, then the Selected Agency shall notify the Purchaser and department the circumstances constituting the Force Majeure and the obligations of which is thereby delayed or prevented, within five (5) working days from the occurrence of the events.

3) In the event the Force Majeure substantially prevents, hinders or delays a Selected Agency’s performance of Services for a period in excess of five (5) working days from the occurrence of any such event, the Selected Agency may declare that an emergency exists.

4) Post the emergency is declared to be over, the Department will communicate to the Selected Agency to resume normal services within a period of seven (7) days. In the event that the Selected Agency is not able to resume services within the next seven (7) days, the Department may terminate the Contract and/or obtain substitute performance from an alternate Selected Agency.

5) Selected Agency will advise, in the event of his having to resort to this Clause, in writing, duly certified by the statutory authorities, the beginning and end of the causes of the delay, within fifteen (15) days of the occurrence and cessation of such Force Majeure.

Pandemic or Epidemic Situation

1) It is expressly clarified that any change in conditions for conducting the examination due to Pandemic or epidemic situation shall not be deemed as Force Majeure event and the Selected Agency shall be responsible for implementation of any disaster contingency planning, back-up and other data safeguards in accordance with the terms of this contract and subsequent contracts signed with the departments.

2) For the avoidance of doubt, it is further clarified that any negligence in performance of Services which directly causes any material or non-material breach to the contract (this contract and subsequent contracts signed with the respective Departments) will attract penalty as per the SLA defined in this document.

3) Whenever an examination is conducted, notwithstanding this agreement between the Selected Agency and the concerned department, Selected Agency shall comply to all directions/guidelines or orders issued by concerned Local/state/national authorities with respect to pandemic during the implementation period.

4) As far as applicable to the performance of services, Selected Agency will be solely responsible to complete the risk assessment and ensure implementation of adequate security hygiene, best practices, processes and technology to prevent any risk and any resulting liability therefrom (wherever applicable) while following any guidelines or orders being issued by the local/ national/ regional government authorities.

5) Under no circumstances the concerned department or UNIT will be held liable for any loss or additional cost to be borne by the Selected Agency while performing their obligations as per the contract.

8.8.26 Definition for default

1) The failure on the part of the Bidder to perform any of its obligations or comply with any of the terms of this Contract shall constitute an Event of Default on the part of the Bidder. The events of default as mentioned above may include inter-alia the following:

a) the Bidder/ Bidder’s Team has failed to perform any instructions or directives issued by the Purchaser which it deems proper and necessary to execute the scope of work or provide services under the
Contract, or
b) the Bidder/ Bidder’s Team has failed to confirm / adhere to any of the key performance indicators as laid down in the Key Performance Measures / Service Level Agreements, or if the Bidder has fallen short of matching such standards / benchmarks / targets as the Purchaser may have designated with respect to the system or any goods, task or service, necessary for the execution of the scope of work and performance of services under this Contract. The above mentioned failure on the part of the Bidder may be in terms of failure to adhere to performance, quality, timelines, specifications, requirements or any other criteria as defined by the Purchaser;
c) the Bidder has failed to remedy a defect or failure to perform its obligations in accordance with the specifications issued by the Purchaser, despite being served with a default notice which laid down the specific deviance on the part of the Bidder/ Bidder’s Team to comply with any stipulations or standards as laid down by the Purchaser;
d) the Bidder/ Bidder’s Team has failed to adhere to any amended direction, instruction, modification or clarification as issued by the Purchaser during the term of this Contract and which the Purchaser deems proper and necessary for the execution of the scope of work under this Contract

e) the Bidder/ Bidder’s Team has failed to demonstrate or sustain any representation or warranty made by it in this Contract, with respect to any of the terms of its Bid, the Tender and this Contract
f) There is a proceeding for bankruptcy, insolvency, winding up or there is an appointment of receiver, liquidator, assignee, or similar official against or in relation to the Bidder.
g) The Bidder/Bidder’s Team has failed to comply with or is in breach or contravention of any applicable laws.

2) Where there has been an occurrence of such defaults inter alia as stated above, the Purchaser shall issue a notice of default to the Bidder, setting out specific defaults / deviances / omissions / non-compliances / non-performances and providing a notice of thirty (30) days to enable such defaulting party to remedy the default committed.

3) Where despite the issuance of a default notice to the Bidder by the Purchaser the Bidder fails to remedy the default to the satisfaction of the Bidder, the Purchaser may, where it deems fit, issue to the defaulting party another default notice or proceed to adopt such remedies as may be available to the Purchaser as per clause 7.8.24.

8.8.27 Consequences of default

Where an Event of Default subsists or remains uncured the Purchaser shall be entitled to:

1) Impose any such obligations and conditions and issue any clarifications as may be necessary to inter alia ensure smooth continuation of project and the Services which the Bidder shall be obliged to comply with which may include re-determination of the consideration payable to the Bidder as agreed mutually by Purchaser and Bidder or through a third party acceptable to both parties. The Bidders shall in addition take all available steps to minimize loss resulting from such event of default.

2) Suspend all payments to the Bidder under the Contract by a written notice of suspension to the Bidder, provided that such notice of suspension:
   a) shall specify the nature of the failure; and
   b) shall request the Bidder to remedy such failure within a specified period from the date of receipt of such notice of suspension by the Bidder

3) Require replacement of any of the Bidder’s sub-contractor(s) / Bidder’s Team member(s) with another suitable member(s) where the Purchaser deems necessary. The Bidder shall in such case terminate forthwith all their agreements/ contracts/ other arrangements with such member(s) and find suitable replacement for such outgoing member(s) with another member(s) to the satisfaction of the Purchaser, who shall execute such Contracts with the Purchaser as the Purchaser may require. Failure on the part of the Bidder to find a suitable replacement and/or
terminate all agreements/contracts with such member(s), shall amount to a breach of the terms hereof and the Purchaser in addition to all other rights, have the right to claim damages and recover from the Bidder all losses/ or other damages that may have resulted from such failure.

4) Terminate the Contract in part or in full
5) Retain such amounts from the payment due and payable by the Purchaser to the Bidder as may be required to offset any losses caused to the Purchaser as a result of such event of default and the Bidder shall compensate the Purchaser for any such loss, damages or other costs, incurred by the Purchaser in this regard. Nothing herein shall effect the continued obligation of the Bidder and Bidder’s Team to perform all their obligations and responsibilities under this Contract in an identical manner as were being performed before the occurrence of the default.
6) Invoke the Performance Bank Guarantee and other Guarantees furnished hereunder, enforce the Deed of Indemnity, recover such other costs/losses and other amounts from the Bidder as may have resulted from such default and pursue such other rights and/or remedies that may be available to the Purchaser under law.

8.8.28 Sub-Contracting
1) The Bidder shall not be permitted to appoint any delegate/subcontractor for the performance of Bidder Services under this contract
2) However, the support of OEMs only for certain tasks limited to installation / deployment, commissioning & maintenance support related to their respective product / equipment is permitted.
3) However, this shall not affect the responsibilities and liabilities of the SI towards the Purchaser under the Contract

8.8.29 Dispute Resolution
1) The Purchaser and the Bidder shall make every effort to resolve amicably by direct informal negotiations, any disagreement or disputes, arising between them under or in connection with the Contract
2) If, after Thirty (30) days from the commencement of such direct informal negotiations, the Purchaser and the Bidder have been unable to resolve amicably a Contract dispute, either party may require that the dispute be referred for resolution to the formal mechanism as specified below
3) In the case of a dispute or difference arising between the Purchaser and the Bidder relating to any matter arising out of or connected with this Contract, such dispute or difference shall be referred to the award of two Arbitrators, one Arbitrator to be nominated by the Purchaser and the other to be nominated by the Bidder or in case of the said Arbitrators not agreeing, then to the award of an Umpire to be appointed by the Arbitrators in writing before proceeding with the reference, and in case the Arbitrators cannot agree to the Umpire, he may be nominated by the Secretary, Indian Council of Arbitration, New Delhi. The award of the Arbitrators, and in the event of their not agreeing, of the Umpire appointed by them or by the Secretary, Indian Council of Arbitration, New Delhi, shall be final and binding on the parties
4) The Arbitration and Conciliation Act 1996, the rules hereunder and any statutory modification or re-enactment thereof, shall apply to the arbitration proceedings
5) The Arbitration proceedings shall be held in Mumbai, India
6) The Arbitration proceeding shall be governed by the substantive laws of India
7) The proceedings of Arbitration shall be in English language
8) Except as otherwise provided elsewhere in the Contract if any dispute, difference, question or disagreement arises between the parties hereto or their respective representatives or assignees, at any time in connection with construction, meaning, operation, effect, interpretation or out of the Contract or breach thereof the same shall be decided by an Arbitral Tribunal consisting of three Arbitrators. Each party shall appoint one Arbitrator and the Arbitrators so appointed shall appoint the third Arbitrator who shall act as Presiding Arbitrator
9) In case, a party fails to appoint an arbitrator within 30 days from the receipt of the request to do so by the other party or the two Arbitrators so appointed fail to agree on the appointment of third Arbitrator within 30 days from the date of their appointment upon request of a party, the Chief Justice of India or any person or institution designated by him (in case of International commercial Arbitration) shall appoint the Arbitrators/ Presiding Arbitrator. In case of domestic contracts, the Chief Justice of the High Court or any person or institution designated by him within whose jurisdiction the subject work order/ Contract has been placed/ made, shall appoint the arbitrator/ Presiding Arbitrator upon request of one of the parties.

10) If any of the Arbitrators so appointed dies, resigns, incapacitated or withdraws for any reason from the proceedings, it shall be lawful for the concerned party/ arbitrator to appoint another person in his place in the same manner as aforesaid. Such person shall proceed with the reference from the stage where his predecessor had left if both parties consent for the same; otherwise, he shall proceed de novo.

11) It is a term of the Contract that the party invoking arbitration shall specify all disputes to be referred to arbitration at the time of invocation of arbitration and not thereafter.

12) It is also a term of the Contract that neither party to the Contract shall be entitled for any interest on the amount of the award.

13) The Arbitral Tribunal shall give reasonable award and the same shall be final, conclusive and binding on the parties.

14) The fees of the arbitrator shall be borne by the parties nominating them and the fee of the Presiding Arbitrator, costs and other expenses incidental to the arbitration proceedings shall be borne equally by the parties.

15) Subject to as aforesaid the provisions of the Arbitration and Conciliation Act, 1996 and any statutory modifications or re-enactment in lieu thereof shall apply to the arbitration proceedings under this clause.

16) Continuance of the Contract

17) Notwithstanding the fact that settlement of dispute(s) (if any) under arbitration may be pending, the parties hereto shall continue to be governed by and perform the work in accordance with the provisions under this Contract.

8.8.30 Conditions Precedent

8.8.30.1 Conditions precedent for Project Implementation Phase

Subject to express terms to the contrary, the rights and obligations of the Parties in respect of the Project Implementation Phase shall be effective only upon fulfillment of all conditions precedent which are set in the RFP. However, Purchaser may at any time at its sole discretion waive fully or partially any of the aforesaid conditions precedent for the Bidder. The following conditions precedent needs to be fulfilled by the Bidder:

1) Performance Bank Guarantee (PBG) as specified in Annexure, to be submitted to Purchaser

2) Provide certified true copies of its constitutional documents and board resolutions authorizing the execution, delivery and performance of Form of Agreement, General Conditions of Contract, Scope of Work and SLA

8.8.30.2 Conditions precedent for Project Operations and Maintenance Phase

Subject to express terms to the contrary, the rights and obligations of the Parties in respect of the Project Operations and Maintenance Phase shall be effective only upon fulfillment of all conditions precedent. However, Purchaser may at any time at its sole discretion waive fully or partially any of the aforesaid conditions precedent for the SI. The following conditions precedent needs to be fulfilled by the Bidder:

1) The customized software is designed, developed, tested, audited and certified before “Go-Live” date in accordance with respective provisions of the RFP.
2) Bidder has to get the software audited and cleared by a CERT-IN empaneled third-party security audit agency as selected by Purchaser before Go-Live date

3) Any relevant provisions set out in the Exit Management Schedule as per RFP hereof are complied with and formalities contained therein fulfilled to the reasonable satisfaction of Purchaser.

**8.8.30.3 Non-fulfillment of Conditions precedent for the Project Implementation Phase**

1) In the event that any of the conditions precedent for the project implementation phase has not been fulfilled within 30 days of the effective date and the same has not been waived by Purchaser fully or partially, the Contract stands terminated as on that date, at the sole discretion of Purchaser

2) Notwithstanding anything contained to the contrary, in the event of termination of possession shall immediately revert to Purchaser, free and clear from any encumbrances or claims;

3) Instead of terminating the contract as per Clause (a) above, Purchaser may extend the time for fulfilling the conditions precedent and the milestones set out in the RFP. It is clarified that any extension of time shall be subject to imposition of penalty (as defined in the Contract) on the Bidder linked to the delay in achieving the milestones as specified in Annexure.

**8.8.31 Approvals and required consents**

1) The Parties will cooperate reasonably to obtain, maintain and observe all relevant and customary regulatory and governmental licenses, clearances and applicable approvals (hereinafter the “Approvals”) necessary for the Bidder to undertake implementation of the project and provide the Services. The costs of all such approvals shall be borne by the Bidder.

2) Both Parties will give each other all co-operation and information reasonably required to meet their respective obligations under the Agreement.

3) Purchaser shall assist Bidder in obtaining the approvals. In the event that any approval is not obtained, the Bidder and Purchaser will co-operate with each other in achieving a reasonable alternative arrangement as soon as it is reasonably practicable for Purchaser, to continue to process its work with as minimal interruption to its business operations as is commercially reasonable until such approval is obtained. The Bidder shall be relieved of its obligations to provide the Services and to achieve the Service Levels until the approvals are obtained if and to the extent that the Bidder's obligations are dependent upon such approvals provided the delay in such approval is caused for reasons not attributable to the Bidder.

**8.8.32 Exit Management**

**8.8.32.1 Exit Management Purpose**

1) This schedule sets out the provisions, which will apply on expiry and termination of the contract, the Project Implementation, Operation and service level

2) In the case of termination of the Project Implementation and/or Operation and Management, the Parties shall agree at that time whether, and if so during what period, the provisions of this Schedule shall apply.

3) The parties shall ensure that their respective associated entities carry out their respective obligations set out in this Exit Management Schedule

**8.8.32.2 Cooperation and provision of information**

1) The bidder will allow the Purchaser or its nominated agency access to information reasonably required to define the then current mode of operation associated with the provision of the services to enable the Purchaser to assess the existing services being delivered.

2) Promptly on reasonable request by the Purchaser, the bidder shall provide access to and copies of all information held or controlled by them which they have prepared or maintained in accordance with
this agreement relating to any material aspect of the services.

8.8.32.3 Confidential Information and Security Data

1) The bidder will promptly on the commencement of the exit management period supply to the Purchaser or its nominated agency the following:
   a) information relating to the current services rendered and performance data;
   b) documentation relating to Computerization Project's Intellectual Property Rights;
   c) documentation relating Original equipment manufacturer (OEM's);
   d) all current and updated data as is reasonably required for purposes of Purchaser or its nominated agencies transitioning the services to its Replacement bidder in a readily available format nominated by the Purchaser, its nominated agency;
   e) all other information (including but not limited to documents, records and agreements) relating to the services reasonably necessary to enable Purchaser or its nominated agencies, or its Replacement bidder to carry out due diligence in order to transition the provision of the Services to Purchaser or its nominated agencies, or its Replacement bidder (as the case may be).

2) Before the expiry of the exit management period, the bidder shall deliver to the Purchaser or its nominated agency all new or up-dated materials from the categories set out in Schedule above and shall not retain any copies thereof, except that the bidder shall be permitted to retain one copy of such materials for archival purposes only.

3) Before the expiry of the exit management period, unless otherwise provided under the contract, the Purchaser or its nominated agency shall deliver to the bidder all forms of bidder confidential information, which is in the possession or control of Purchaser.

8.8.32.4 Employees

1) Promptly on reasonable request at any time during the exit management period, the bidder shall, subject to applicable laws, restraints and regulations (including in particular those relating to privacy) provide to the Purchaser or its nominated agency a list of all employees (with job titles) of the bidder dedicated to providing the services at the commencement of the exit management period.

2) Where any national, regional law or regulation relating to the mandatory or automatic transfer of the contracts of employment from the bidder to the Purchaser or its nominated agency, or a Replacement bidder ("Transfer Regulation") applies to any or all of the employees of the bidder, then the Parties shall comply with their respective obligations under such Transfer Regulations.

3) To the extent that any Transfer Regulation does not apply to any employee of the bidder, Purchaser, or its Replacement bidder may make an offer of employment or contract for services to such employee of the bidder and the bidder shall not enforce or impose any contractual provision that would prevent any such employee from being hired by the purchaser or any Replacement bidder.

8.8.32.5 Transfer of Certain Agreements

On request by the Purchaser or its nominated agency the bidder shall effect such assignments, transfers, licenses and sub-licenses as the purchaser may require in favor of the Purchaser, or its Replacement bidder in relation to any equipment lease, maintenance or service provision agreement between bidder and third party lessors, vendors, and which are related to the services and reasonably necessary for the carrying out of replacement services by the purchaser or its nominated agency or its Replacement bidder.

8.8.32.6 Applicable Law

1) The Bidder shall be governed by the laws and procedures established by Govt. of India, within the framework of applicable legislation and enactment made from time to time concerning such commercial dealings/processing.

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2) All disputes in this connection shall be settled in Mumbai jurisdiction only.
3) Purchaser reserves the right to cancel this tender or modify the requirement.
4) Purchaser also reserves the right to modify/relax any of the terms & conditions of the tender by declaring / publishing such amendments in a manner that all prospective vendors / parties to be kept informed about it.
5) Purchaser in view of projects requirement may reject any tender(s), in which any prescribed condition(s) is/are found incomplete in any respect and at any processing state.
6) The Bidder shall provide all manuals and documentation related to all systems and processes.

### 8.9 Fraud and Corrupt Practices

1) The Bidders and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Selection Process. Notwithstanding anything to the contrary contained in this RFP, the Purchaser shall reject a Proposal without being liable in any manner whatsoever to the Bidder, if it determines that the Bidder has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the “Prohibited Practices”) in the Selection Process. In such an event, the Purchaser shall, without prejudice to its any other rights or remedies, forfeit and appropriate the Bid Security or Performance Security, as the case may be, as mutually agreed genuine pre-estimated compensation and damages payable to the Authority for, inter alia, time, cost and effort of the Authority, in regard to the RFP, including consideration and evaluation of such Bidder's Proposal.

2) Without prejudice to the rights of the Purchaser under Clause above and the rights and remedies which the Purchaser may have under the LOI or the Agreement, if an Bidder or Systems Implementation Agency, as the case may be, is found by the Authority to have directly or indirectly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice during the Selection Process, or after the issue of the LOI or the execution of the Agreement, such Bidder or Systems Implementation Agency shall not be eligible to participate in any tender or RFP issued by the Purchaser during a period of 2 (two) years from the date such Bidder or Systems Implementation Agency, as the case may be, is found by the Purchaser to have directly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as the case may be.

3) For the purposes of this Section, the following terms shall have the meaning hereinafter respectively assigned to them:
   a) “corrupt practice” means (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of any person connected with the Selection Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of the Purchaser who is or has been associated in any manner, directly or indirectly with the Selection Process or the LOI or has dealt with matters concerning the Agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the Purchaser, shall be deemed to constitute influencing the actions of a person connected with the Selection Process); or (ii) save as provided herein, engaging in any manner whatsoever, whether during the Selection Process or after the issue of the LOA or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOA or the Agreement, who at any time has been or is a legal, financial or technical consultant/ adviser of the Purchaser in relation to any matter concerning the Project;
   b) “fraudulent practice” means a misrepresentation or omission of facts or disclosure of incomplete facts, in order to influence the Selection Process;
   c) “coercive practice” means impairing or harming or threatening to impair or harm, directly or indirectly, any
persons or property to influence any person’s participation or action in the Selection Process;

d) “undesirable practice” means (i) establishing contact with any person connected with or employed or engaged by Purchaser with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Selection Process; or (ii) having a Conflict of Interest; and

d) “restrictive practice” means forming a cartel or arriving at any understanding or arrangement among Bidders with the objective of restricting or manipulating a full and fair competition in the Selection Process.

8.10 Conflict of Interest

1) A Bidder shall not have a conflict of interest that may affect the Selection Process or the Solution delivery (the “Conflict of Interest”). Any Bidder found to have a Conflict of Interest shall be disqualified. In the event of disqualification, the Purchaser shall forfeit and appropriate the EMD, if available, as mutually agreed genuine pre-estimated compensation and damages payable to the Purchaser for, inter alia, the time, cost and effort of the Purchaser including consideration of such Bidder’s Proposal, without prejudice to any other right or remedy that may be available to the Purchaser hereunder or otherwise.

2) The Purchaser requires that the Implementation Agency provides solutions which at all times hold the Purchaser’s interest paramount, avoid conflicts with other assignments or its own interests, and act without any consideration for future work. The Systems Implementation Agency shall not accept or engage in any assignment that would be in conflict with its prior or current obligations to other clients, or that may place it in a position of not being able to carry out the assignment in the best interests of the Purchaser.

3) Without limiting the generality of the above, an Bidder shall be deemed to have a Conflict of Interest affecting the Selection Process, if: the Bidder, or Associates (or any constituent thereof) have common controlling shareholders or other ownership interest; provided that this disqualification shall not apply in cases where the direct or indirect shareholding or ownership interest of an Bidder, its Member or Associate (or any shareholder thereof having a shareholding of more than 5% per cent of the paid up and subscribed share capital of such Bidder, Member or Associate, as the case may be) in the other Bidder, or Associates is less than 5% (five per cent) of the subscribed and paid up equity share capital thereof. For the purposes of this Clause, indirect shareholding held through one or more intermediate persons shall be computed as follows:

a) where any intermediary controlled by a person through management control or otherwise, the entire shareholding held by such controlled intermediary in any other person (the “Subject Person”) shall be taken into account for computing the shareholding of such controlling person in the Subject Person; where a person does not exercise control over an intermediary, which has shareholding in the Subject Person, the computation of indirect shareholding of such person in the Subject Person shall be undertaken on

b) a proportionate basis; provided, however, that no such shareholding shall be reckoned under this Sub-clause if the shareholding of such person in the intermediary is less than 26% (twenty-six per cent) of the subscribed and paid up equity shareholding of such intermediary; or

c) a constituent of such Bidder is also a constituent of another Bidder; or

d) such Bidder or its Associate receives or has received any direct or indirect subsidy or grant from any other Bidder or its Associate; or

e) such Bidder has the same legal representative for purposes of this Application as any other Bidder; or

f) such Bidder has a relationship with another Bidder, directly or through common third parties, that puts them in a position to have access to each other’s information about, or to influence the Application of either or each of the other Bidder; or
g) there is a conflict among this and other Systems Implementation/Turnkey solution assignments of the Bidder (including its personnel and other members, if any) and any subsidiaries or entities controlled by such Bidder or having common controlling shareholders. The duties of the Systems Implementation Agency will depend on the circumstances of each case. While providing software implementation and related solutions to the Purchaser for this particular assignment, the Systems Implementation Agency shall not take up any assignment that by its nature will result in conflict with the present assignment; or

4) A firm hired to provide System Integration/Turnkey solutions for the implementation of a project, and its Members or Associates, will be disqualified from subsequently providing goods or works or services related to the same project;

5) A Bidder eventually appointed to implement software solutions for this Project, its Associates, affiliates and the Financial Expert, shall be disqualified from subsequently providing goods or works or services related to the construction and operation of the same Project and any breach of this obligation shall be construed as Conflict of Interest; provided that the restriction herein shall not apply after a period of 12 months from the completion of this assignment; provided further that this restriction shall not apply to software solutions delivered to the Purchaser in continuation of this systems implementation or to any subsequent systems implementation executed for the Purchaser in accordance with the rules of the Purchaser.
9  Payment

The payment will be released based on provisions mentioned in this Section.

9.1  Preparation and Submission of Invoice

1) The SI shall prepare and submit the invoice to the department, as per the contract. The invoice shall include all the supporting documents including necessary proofs of the work undertaken.

2) The invoice shall also clearly mention the bank account details of the SI for electronic release of payment using RTGS, NEFT, etc.

3) No invoice for extra work/change order on account of a change will be submitted by the SI unless the said extra work/change order has been authorized/approved by the Authority in writing.

9.2  Payment Amount

1) All payments agreed to be made by department to the SI in accordance with the Contract. All payments to be made to the selected agency shall be made after deduction of applicable penalties as applicable.

2) Note 1: All Payments shall be made in Indian Rupees Only and shall be subject to relevant provisions of this RFP.

3) Note 2: Payments shall be subject to deductions of any amount for which the Bidder is liable under the RFP conditions. Further, all payments shall be made subject to deduction of TDS (Tax Deducted at Source) as per the applicable Tax regime.

For understanding of the selected agency,

Payment made by the Government Authority = Invoice Amount – Penalty (if any) as per SLAs as mentioned in this RFP - Liquidated damages (if any) – Income Tax and Other Tax Deducted at Source (TDS) - any other taxes

9.3  Payment Terms

A) Payment Terms for Part A (CET):

Bidder’s payment will be based on the total unique number of candidate registrations (application confirmed candidate) per course. The breakdown of payment structure is given below. Once a Service provider enters a contract with the department, the payment terms for each contract will be as follows:

Total Contract Value \( V \) = Min 70% of last year’s total candidate registrations (as specified in annexures of this RFP) or Actual Number of registration \( R \) for this year (which is higher) * Cost per candidate (as quoted by bidder)

<table>
<thead>
<tr>
<th>Milestones</th>
<th>Amount to be paid (% of Total Contract Value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development and deployment online applications and Finalization, Technical Audit UAT and launching approved application form along with user manual audio video training content helpdesk and call center setup proof</td>
<td>10%</td>
</tr>
<tr>
<td>Finalization, Technical Audit and On boarding of the centers in Maharashtra and other States as per the requirement of CET Cell along with online verification of dry run by CET CELL and facility available at centers inspection report.</td>
<td>15%</td>
</tr>
<tr>
<td>Post Examination Conduction and submission of center wise attendance report</td>
<td>30%</td>
</tr>
<tr>
<td>Post publication of result and publication of Score Cards with QR Code</td>
<td>25%</td>
</tr>
<tr>
<td>Handing over of data, Mal practice reports, Video Recording of the Centers and reconciliation of Payment</td>
<td>15%</td>
</tr>
<tr>
<td>After resolution of complaints (if any) related to examination or 60 days after completion of all examinations whichever is later.</td>
<td>5%</td>
</tr>
</tbody>
</table>
B) Payment Terms for Part B (CAP):

Bidder’s payment will be based on the total number of candidate registrations received on the CAP Application. The breakup of payment structure is given below.

Once a Service provider enters a contract with the department, the payment terms for each contract will be as follows:

Total Contract Value for each contract / subject (V) = Number of registration (R) * Price per registration for the applicable slot (P)

<table>
<thead>
<tr>
<th>Milestones</th>
<th>Amount to be paid (% of Total Contract Value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>After completion of CAP Registration</td>
<td>20%</td>
</tr>
<tr>
<td>After Merit list publication</td>
<td>20%</td>
</tr>
<tr>
<td>Admission Process Completion All on line Rounds and Institute level rounds / mop up rounds / Additional rounds</td>
<td>40%</td>
</tr>
<tr>
<td>Closure of Process, Fees collection, Reconciliation,</td>
<td>15%</td>
</tr>
<tr>
<td>After Directorate and ARA verification and Data sharing</td>
<td>5%</td>
</tr>
</tbody>
</table>

9.4 Processing of Invoice

1) The Government Authority shall make payments to the SI subject to fulfilment of SI’s obligations and submission of invoices by the SI

2) All efforts to release the payment, if applicable, within 30 working days of acceptance of submitted valid invoice(s) subject to the condition that invoice(s) and all supporting documents produced are in order and work is performed to the satisfaction of the Authority.
### 9.5 Compliance Sheet for Pre-qualification Proposal

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Pre-qualification Criteria</th>
<th>Documentary Evidence Required</th>
<th>Provided</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Covering Letter</td>
<td>Pre-Qualification Covering Letter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Legal Entity</td>
<td>Copy Certificate of Incorporation issued by Registrar of Companies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Annual Turnover</td>
<td>Three years audited financial statements AND</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Net Worth</td>
<td>Auditor’s certificate (i.e. 2019-20 ,2020-21 and 2021-22)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Technical Capability</td>
<td>Experience details with documentary evidence for scope of work and contract value, along with client contact details, in the form of Work order / Purchase order / Completion certificate from client</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Blacklisted Entity / Debarment</td>
<td>Declaration by authorized signatory of the Bidder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Authorized Signatory</td>
<td>Board Resolution / Authorization Letter / Power of Attorney</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>CMMI Certification</td>
<td>Copy of the Certificate(s) signed and stamped by the authorized signatory of the Bidder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>ISO 9001:2015</td>
<td>Copy of the Certificate(s) signed and stamped by the authorized signatory of the Bidder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>ISO 27001</td>
<td>Copy of the Certificate(s) signed and stamped by the authorized signatory of the Bidder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Earnest Money Deposit</td>
<td>Submission proof</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Tender Fee</td>
<td>Submission proof</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Consortium Agreement</td>
<td>Consortium Agreement (in case of Consortium)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
10 Annexure 1 - Proforma and submission formats

10.1 Acceptance of terms and conditions contained in the RFP document

To,
Commissioner & Competent authority
State Common Entrance Test Cell
8th Floor, New Excelsior Building,
A. K. Nayak Marg, Fort, Mumbai- 400 001

Dear Sir,

I have gone through the terms and conditions contained in the RFP Document.

I declare that all the provisions of this RFP document are acceptable to my Company. I further certify that I am an authorized signatory of my company, and am, therefore, competent to make this declaration.

Signature of witness
Date:…/...../2023
Place:

Signature of Bidder
Date:
Place:

Company Seal
### 10.2 Details of the organization

<<On Bidder’s Letter Head>>

<table>
<thead>
<tr>
<th>#</th>
<th>Description</th>
<th>Details (to be filled by the Sole Bidder or Lead Bidder)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Name of the company</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Official address</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Phone No. and E-mail</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Corporate Headquarters Address</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Phone No. and E-mail</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Web Site Address</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Details of Company's Registration (Please enclose copy of the company registration document)</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Name of Registration Authority</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Registration Number and Year of Registration</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>ISO / CMMI certifications and its validity</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>GST Registration No.</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Permanent Account Number (PAN) / Tax Deduction Account Number (TAN)</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Company’s Revenue for last 3 Financial Years (Year wise) (i.e. 2021-22, 2020-21, 2019-20)</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Company’s net worth for the last Financial Year</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Stake in Consortium (in %)</td>
<td></td>
</tr>
</tbody>
</table>

Please submit the relevant proofs for all the details mentioned above along with your bid response. Contact Details of officials for future correspondence regarding the bid process:

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Company Address</th>
<th>Phone</th>
<th>Mobile</th>
<th>E-mail</th>
</tr>
</thead>
</table>

Company Seal
10.3 Format for Power of Attorney to Authorize Signatory

POWER OF ATTORNEY

[To be executed on non-judicial stamp paper of Rs. 200 in accordance with relevant Stamp Act. The stamp paper to be in the name of the company who is issuing the power of attorney]

We, M/s.______(name of the firm or company with address of the registered office) hereby constitute, appoint and authorize Mr. or Ms.______(Name and residential address) who is presently employed with us and holding the position of______, as our Attorney to do in our name and our behalf all or any of the acts, deeds or things necessary or incidental to our RFP for Onboarding Agency for Conduction of Computer based online Common Entrance Test and Centralized Admission Process A.Y. 2023-24 for CET CELL, Mumbai including signing and submission of the RFP response, participating in the meetings, responding to queries, submission of information or documents and generally to represent us in all the dealings with Client or any other Government Agency or any person, in connection with the works until culmination of the process of bidding till the Agreement is entered into with Commissioner, CET CELL and thereafter till the expiry of the Project Agreement.

We hereby agree to ratify all acts, deeds and things lawfully done by our said Attorney pursuant to this power of attorney and that all acts, deeds and things done by our aforesaid Attorney shall and shall always be deemed to have been done by us.

Dated this the______day of_______2023

(Signature and Name of authorized signatory)

(Signature and Name in block letters of all the remaining partners of the firm Signatory for the Company)

Seal of firm Company

Witness 1: ____________________________ Witness 2: ____________________________

Note: The Mode of execution of the power of attorney shall in accordance with the procedure, if any laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same shall under common seal affixed in accordance with the required procedure.
## 10.4 CA or Statutory Auditor’s Certificate for Turnover

Date: DD/MM/YYYY

To,
Commissioner & Competent authority
State Common Entrance Test Cell
8th Floor, New Excelsior Building,
A. K. Nayak Marg, Fort, Mumbai- 400 001

**Subject:** Onboarding Agency for Conduction of Computer based online Common Entrance Test and Centralized Admission Process A.Y. 2023-24 for CET CELL, Mumbai

Dear Sir,

This is to certify that the Annual Turnover from IT/ITeS business and Turnover from conduction of computer based online exams or computer-based exams as per books and records of _______ for the following financial years are as under.

NOTE: To be filled for the sole bidder or for all consortium members each consortium member.

<table>
<thead>
<tr>
<th>Details</th>
<th>FY 2019-20 (in INR Crores) (i)</th>
<th>FY 2020-21 (in INR Crores) (ii)</th>
<th>FY 2021-22 (in INR Crores) (iii)</th>
<th>Average Turnover [(i)+(ii)+(iii)/3]</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT and IT allied services or IT Enabled Education Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turnover from conduction of computer based online exams or computer-based exams</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turnover from Conduction of online centralized admission process (CAP)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I further certify that I am competent officer in my company to make this declaration.

Yours sincerely,

---

Signature of Authorized Signatory (with official seal)
Name:
Designation:
Address:
Telephone:
E-mail Address:
10.5 Auditor's Certificate for Net worth of Bidder

Date: DD/MM/YYYY

To,
Commissioner & Competent authority
State Common Entrance Test Cell
8th Floor, New Excelsior Building,
A. K. Nayak Marg, Fort, Mumbai- 400 001

Subject: Onboarding Agency for Conduction of Computer based online Common Entrance Test and Centralized Admission Process A.Y. 2023-24 for CET CELL, Mumbai

Dear Sir,

This is to certify that the Net Worth as per books and records of ______________________________ for the following financial years are as under.

NOTE: To be filled for the lead bidder and each consortium member.

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Financial Year Ending</th>
<th>Net Worth (in INR Crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>31 March 2020</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>31 March 2021</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>31 March 2022</td>
<td></td>
</tr>
</tbody>
</table>

Average Turnover

I further certify that I am competent officer in my company to make this declaration.

Yours sincerely,

Signature of Authorized Signatory (with official seal)
Name :
Designation :
Address :
Telephone :
E-mail Address :

To,
Commissioner & Competent authority
State Common Entrance Test Cell
8th Floor, New Excelsior Building,
A. K. Nayak Marg, Fort, Mumbai- 400 001

Whereas you intent to enter into a contract, as per your Letter of Intent, Reference No.__________ dated___________________________ (Hereinafter referred to as "the contract") with M/s as vendor for the supply of____________________ defined in contracts schedule, (hereinafter referred to as "the goods / services") and whereas the vendor has undertaken to produce a performance cum warranty bond for amount of Rs------------- being equal to ---% of the total contract value of the goods / services to be delivered as specified contract No ------------ dated ----------- referred to as "contract to secure its obligations to the beneficiary with respect to the goods specified in the invoice.

1) We------------------------------------------(Name of the Bank), hereby expressly, irrevocably and unreservedly undertake and guarantee as principal obligors on behalf of the Seller that in the event that the beneficiary submits a written demand to us stating that the Seller has not performed according to the terms and conditions of the contract, we will pay you on demand and without demur any sum up to a maximum amount of not less than 3% of the contract value. Any claims must bear the confirmation of your bankers that the signatures thereon are authentic. Your written demand shall be conclusive evidence to us that such written demand. For the avoidance of doubt any documents received by way of facsimile or similar electronic means is / are not acceptable for any purpose(s) under this guarantee.

2) We shall not be discharged or released from this undertaking and guarantee by any arrangements, variations made between beneficiary and the seller or any forbearance whether as to payment, time performance or otherwise.

3) In no case, shall the amount of the guarantee be increased.

4) Unless a demand under this guarantee is received by us in writing on or before the expiry date (unless this guarantee is extended by the seller), all your rights under this guarantee shall be forfeited and we shall be discharged from the liabilities hereunder.

5) This guarantee shall be a continuing guarantee (which means guarantee will also be valid if the bank is in under liquidation or bankruptcy) and shall not be discharged by any change in the constitution of the bank or in the constitution of the Seller.

6) Please return this letter of guarantee immediately after our liability thereafter has ceased to be valid.

7) Our liability under this guarantee will cease to be valid even if the guarantee deed is not returned to us.

8) This guarantee is personal to the beneficiary and not assignable to a third party without our prior written consent.

9) This guarantee shall be governed by Indian Law. This guarantee is valid until the <<mention date>>.

Signature and Seal of Guarantors

Date:........./......./2023
Address: ----------------------------------------
10.7 Format for Declaration by the Bidder for not being Blacklisted / Debarred

<To be submitted by sole bidder or each member of consortium on a non-judicial stamp paper of INR 100>

Date: <DD/MM/YYYY>

To
Commissioner & Competent authority
CET CELL
Excelsior Theater Building,
AK Nayak Marg,
Azad Maidan, Fort,
Mumbai, Maharashtra 400001

Dear Sir,

In response to the RFP No.__________________________ dated__________ for
Onboarding Agency for Conduction of Computer based online Common Entrance Test and Centralized Admission Process A.Y. 2023-24 for CET CELL, Mumbai as an owner/partner/director of__________
__________________________I/we hereby declare that presently our company/firm__________________________is having unblemished record and is not declared ineligible for corrupt and fraudulent practices either indefinitely or for a particular period of time by any State/Central Government/PSU.

We further declare that presently our company/firm__________________________is not blacklisted and not declared ineligible for any reason by any State/Central Government/PSU as on the date of Bid submission.

If this declaration is found to be incorrect then without prejudice to any other action that may be taken, my/our EMD/performance security may be forfeited in full and the tender if any to the extent accepted may be cancelled.

Yours Sincerely,

__________________________
Signature of Authorized Signatory (with official seal)

Name: 

Designation: 

Address: 

Telephone: 

E-Mail address: 

10.8 Technical Proposal Cover Letter

<<On Bidder's Letter Head>>

Date: dd/mm/yyyy

To,
Commissioner & Competent authority
State Common Entrance Test Cell
8th Floor, New Excelsior Building,
A. K. Nayak Marg, Fort, Mumbai- 400 001

Sub: Onboarding Agency for Conduction of Computer based online Common Entrance Test and Centralized Admission Process A.Y. 2023-24 for CET CELL, Mumbai

Ref: RFP No:<No> for Onboarding Agency for Conduction of Computer based online Common Entrance Test and Centralized Admission Process A.Y. 2023-24 for CET CELL, Mumbai

Dear Sir,

We, the undersigned, offer to provide systems implementation solutions to CET CELL on design, development, implementation and maintenance of an end to end Online Solution with your Request for Proposal dated <insert date> and our Proposal.

We hereby declare that all the information and statements made in this technical bid are true and accept that any misinterpretation contained in it may lead to our disqualification.

We undertake, if our Proposal is accepted, to initiate the Implementation services related to the assignment not later than the date indicated in the contract agreement.

We agree to abide by all the terms and conditions of the RFP document. We would hold the terms of our bid valid for 180 days as stipulated in the RFP document.

We understand you are not bound to accept any Proposal you receive.

Yours sincerely,

[Signature of Authorized Signatory (with official seal)]
Name :
Designation :
Address :
Telephone :
E-mail Address :
10.9 Experience of implementing similar projects in last 5 (five) financial years (2017-18, 2018-19, 2019-20, 2020-21, 2021-22)  

<To be provided each project separately on Bidder's Letter head>  

<table>
<thead>
<tr>
<th>General Information</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Client for which the project was executed</td>
<td></td>
</tr>
<tr>
<td>Name of the client contact person(s)</td>
<td></td>
</tr>
<tr>
<td>Designation of client contact person(s)</td>
<td></td>
</tr>
<tr>
<td>Contact details of the client contact person(s)</td>
<td></td>
</tr>
</tbody>
</table>

| Project Details for CET and CAP* to be submitted separately |  |
| Description of the project |  |
| Scope of work of the Bidder |  |
| Deliverables of the Bidder |  |
| Technologies used |  |
| Current Status of the project |  |

| Other Details |  |
| Total cost of the project |  |
| Total cost of the services provided by the Bidder |  |
| Duration of the project (number of months, start date, completion date, current status) |  |

| Other Relevant Information |  |
| Mandatory Supporting Documents - i) Work order / Purchase order / Contract for the project and ii) Project Completion Certificate thereof |  |

Note: The Bidder is required to use above format for all the projects referenced by the Bidder for the pre-qualification criteria evaluation.

Signature of witness: ___________________________  
Signature of Bidder: ___________________________

Date: ___________________________  
Date: ___________________________

Place: ___________________________  
Place: ___________________________

Company Seal
### 10.10 Consolidated Sheet for All Relevant Experiences Submitted with the Bid
For Part A (CET):

<table>
<thead>
<tr>
<th>SrNo</th>
<th>Name of Examination</th>
<th>Name of Department/Organization and state</th>
<th>Year of examination</th>
<th>Count of Candidates registered</th>
<th>Total Number of shifts</th>
<th>Averag number of candidates appeared in single shift</th>
<th>Numb er of centre all India basis</th>
<th>Work Order Page No</th>
<th>Client or Self-certificate page no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>2</td>
<td></td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
</tbody>
</table>

### For Part B (CAP):

<table>
<thead>
<tr>
<th>Sr No</th>
<th>Name of Course</th>
<th>Name of Department/Organization and state</th>
<th>Year of Admission</th>
<th>No of candidates Registered for CAP</th>
<th>Work Order (Page No)</th>
<th>Work Completion certificate from Client (Page no.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>2</td>
<td></td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

---

---
11 Annexure 2:- Financial Proposal

11.1 Commercial Bid Covering Letter

To,
Commissioner
CET CELL
8th Floor, New Excelsior Building,
A. K. Nayak Marg, Fort, Mumbai- 400 001

Subject: Onboarding Agency for Conduction of Computer based online Common Entrance Test and Centralized Admission Process A.Y. 2023-24 for CET CELL, Mumbai

Dear Sir,

We, the undersigned, offer to provide services for Onboarding Agency for Conduction of Computer based online Common Entrance Test and Centralized Admission Process A.Y. 2023-24 for CET CELL, Mumbai in accordance with your Request for Proposal dated <<Date>> and our Proposal (Technical and Financial). Our attached Financial Proposal is for the sum of INR. This amount is inclusive of the local taxes.

1. PRICE AND VALIDITY

All the prices mentioned in our Tender are in accordance with the terms as specified in the RFP documents. All the prices and other terms and conditions of this Bid are valid for a period of 180 days calendar days from the date of opening of the Bid.

We hereby confirm that our prices include all taxes. However, all the taxes are quoted separately under relevant sections. Any miscalculation of taxes would be on our own account.

We understand that the actual payment would be made as per the existing indirect tax rates during the time of payment.

2. UNIT RATES

We have indicated in the relevant forms enclosed, the unit rates for the purpose of on account of payment as well as for price adjustment in case of any increase to / decrease from the scope of work under the contract.

3. TENDER PRICING

We further confirm that the prices stated in our bid are in accordance with your Instruction to Bidders included in Tender documents.

4. QUALIFYING DATA

We confirm having submitted the information as required by you in your Instruction to Bidders. In case you require any other further information/documentary proof in this regard before evaluation of our Tender, we agree to furnish the same in time to your satisfaction.

5. BID PRICE

We declare that our Bid Price is for the entire scope of the work as specified in the Scope of Work of the RFP. These prices are indicated in Commercial Bid attached with our Tender as part of the Tender.

6. Security Deposit

We hereby declare that in case the contract is awarded to us, we shall submit the Performance Bank Guarantee/Demand Draft as will be specified by Competent Authority.
Our Financial Proposal shall be binding upon us subject to the modifications resulting from Contract negotiations, up to expiration of the validity period of the Proposal.

We understand you are not bound to accept any Proposal you receive.

We hereby declare that our Tender is made in good faith, without collusion or fraud and the information contained in the Tender is true and correct to the best of our knowledge and belief.

We understand that our Tender is binding on us and that you are not bound to accept a Tender you receive.

Thanking you,
Yours sincerely,

Authorized Signature:
Name and Title of Signatory:
Name of Firm:
Address:
11.2 Financial Proposal

<table>
<thead>
<tr>
<th>Particulars</th>
<th>Cost per candidate in INR</th>
<th>Applicable Tax in INR</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rate per candidate for conduction of LAN based CBT under supervision of invigilators (CET)</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Part B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rate per candidate for Online Centralized Admission Process (CAP)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: -
1. The above said rate shall be inclusive of all type of expenses in conduction of examination (CET) and Online Centralized Admission Process (CAP) respectively as per the scope of work specified under this RFP.
2. This is the bidder’s responsibility to factor any/all expenses to be incurred towards conducting the exam (CET) and Online Centralized Admission Process (CAP) as per the RFP terms at the cost specified above.
3. For calculating L1 the following formula will be used
   \[(\text{Rate quoted for part A (CET)} \times \alpha) + (\text{Rate quoted for part B (CAP)} \times \beta)\]
   \[
   \alpha = \frac{(\text{Count of CET registered candidates for A.Y. 2022 - 23 + 10% increase})}{\text{Total count of CET & CAP registered candidates for A.Y. 2022 - 23 + 10% increase}}
   \]
   \[
   \beta = \frac{(\text{Count of CAP registered candidates for A.Y. 2022 - 23 + 10% increase})}{\text{Total count of CET & CAP registered candidates for A.Y. 2022 - 23 + 10% increase}}
   \]
   • Count of CET registered candidates A.Y.2022-23: 1001816 + 100182 (10% Increase) = 1101998
   • Count of CAP registered candidates A.Y.2022-23: 563432 + 56343 (10% Increase) = 619775
4. Bidder should note that number of candidates appearing for CET and appearing for CAP may vary. The last year course wise count is given in Annexure 9 for reference purpose only.
5. It is responsibility of the bidder to factor all the above points and any other expenses to be incurred towards conducting the online Computer Based Test (CET) and Centralised Admission Process (CAP) as per the RFP terms mentioned above while quoting the cost specified above.
### 12 Annexure 3:- List of courses

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Course Name</th>
<th>Count of Candidates registered for various CETs A.Y.2022-23</th>
<th>Syllabus</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Higher Education</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>LLB 3 Yrs.</td>
<td>78479</td>
<td>Annexure A</td>
</tr>
<tr>
<td>2</td>
<td>LLB 5 Yrs. (Integrated)</td>
<td>29011</td>
<td>Annexure B</td>
</tr>
<tr>
<td>3</td>
<td>B. P. Ed</td>
<td>6921</td>
<td>Annexure C</td>
</tr>
<tr>
<td>4</td>
<td>M. P. Ed</td>
<td>2556</td>
<td>Annexure D</td>
</tr>
<tr>
<td>5</td>
<td>B. Ed &amp; B. Ed (ELCT)</td>
<td>87878</td>
<td>Annexure E</td>
</tr>
<tr>
<td>6</td>
<td>B.A B.Ed./B.Sc. B.Ed.</td>
<td>2311</td>
<td>Annexure F</td>
</tr>
<tr>
<td>7</td>
<td>B.Ed.-M.Ed.</td>
<td>2115</td>
<td>Annexure G</td>
</tr>
<tr>
<td>8</td>
<td>M.Ed.</td>
<td>3264</td>
<td>Annexure H</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Medical Education</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>PGP / PGO / M.Sc. SLP / M. Sc (Audio) / M. Sc. P &amp; O</td>
<td>827</td>
<td>Annexure I</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fine Art Education</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>MH-AAC</td>
<td>3992</td>
<td>Annexure J</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Technical Education</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>MBA/MMS</td>
<td>137635</td>
<td>Annexure K</td>
</tr>
<tr>
<td>2</td>
<td>BHMCT</td>
<td>966</td>
<td>Annexure L</td>
</tr>
<tr>
<td>3</td>
<td>MHMCT</td>
<td>40</td>
<td>Annexure M</td>
</tr>
<tr>
<td>4</td>
<td>M. Arch</td>
<td>838</td>
<td>Annexure N</td>
</tr>
<tr>
<td>5</td>
<td>MCA</td>
<td>38162</td>
<td>Annexure O</td>
</tr>
<tr>
<td>6</td>
<td>MHTCET</td>
<td>606790</td>
<td>Annexure P</td>
</tr>
<tr>
<td>7</td>
<td>B.Planning</td>
<td>31</td>
<td>Annexure Q</td>
</tr>
<tr>
<td>8</td>
<td>B.Deisign</td>
<td>From A.Y.2023-24 CET to be included under Technical Education (Expected Count 500)</td>
<td>Annexure R</td>
</tr>
</tbody>
</table>
13 Annexure 4:- Department and Course wise Syllabus

I) Higher Education:

Annexure A

Syllabus and Marking Scheme for LL.B. 3 Yrs. CET.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Sections</th>
<th>No. of Questions</th>
<th>Marks per Question</th>
<th>Total Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Legal Aptitude and Legal Reasoning</td>
<td>30</td>
<td>1</td>
<td>30</td>
</tr>
<tr>
<td>2</td>
<td>General Knowledge and Current Affairs</td>
<td>40</td>
<td>1</td>
<td>40</td>
</tr>
<tr>
<td>3</td>
<td>Logical and Analytical Reasoning</td>
<td>30</td>
<td>1</td>
<td>30</td>
</tr>
<tr>
<td>4</td>
<td>English</td>
<td>50</td>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>150</strong></td>
<td></td>
<td><strong>150</strong></td>
</tr>
</tbody>
</table>

Contents of the Syllabus:

1. **Legal Aptitude and Legal Reasoning:**
   This subject will test candidate's interest towards the study of Law, Legal aptitude and problem solving ability. Questions will be framed with the help of legal prepositions and a set of facts to which the said prepositions have to be applied. Some prepositions may not be true in the real sense. Candidates will have to assume truth of these prepositions and answer the questions drawing well supported conclusions.

2. **General Knowledge with Current Affairs:**
   The topics such as History (Ancient, Medieval and Modern), Geography, General Science, Economics, Civics and the Current Affairs of the past One Year. The subject is to assess the knowledge of the recent happening and awareness of the World.

3. **Logical and Analytical Reasoning:**
   The subject is to test the candidate’s ability to identify patterns, logical links and rectify illogical arguments. It will include wide analogies, completing arguments, drawing well supported conclusions, reasoning by analogy, applying principles or rules. Further the subject is to measure the ability to understand the structure, relationship and to draw logical conclusions about the structures. It includes reasoning deductively from the set of statements and rules or principles that describes the relationship among persons, things or events.

4. **English:**
   This section will consist the questions on the areas like Vocabulary (Synonyms, Antonyms, analogies etc.) Proficiency (Idioms and Phrases, One word Substitution, Sentence Improvement and rearrangement, fill in the Blanks etc.) English Usage Errors (Common errors, Spotting errors, inappropriate usage of words, spelling mistakes etc.) English Comprehension with minimum two passages followed by Five to Ten questions that test reading and reasoning abilities.

➢ The Questions will be Objective Multiple Choice Questions with Four Options.
➢ There is No Negative Marking.
➢ The time allotted is 2 Hours i.e. One Hundred and Twenty Minutes.
➢ The Questions will be in English and Marathi.
Annexure B

Syllabus and Marking Scheme for LL.B. 5 Yr CET

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Sections</th>
<th>No. of Questions</th>
<th>Marks per Question</th>
<th>Total Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Legal Aptitude and Legal Reasoning</td>
<td>40</td>
<td>1</td>
<td>40</td>
</tr>
<tr>
<td>2</td>
<td>General Knowledge and Current Affairs</td>
<td>30</td>
<td>1</td>
<td>30</td>
</tr>
<tr>
<td>3</td>
<td>Logical and Analytical Reasoning</td>
<td>40</td>
<td>1</td>
<td>40</td>
</tr>
<tr>
<td>4</td>
<td>English</td>
<td>30</td>
<td>1</td>
<td>30</td>
</tr>
<tr>
<td>5</td>
<td>Basic Mathematics</td>
<td>10</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>150</strong></td>
<td></td>
<td><strong>150</strong></td>
</tr>
</tbody>
</table>

Contents of the Syllabus:

1. **Legal Aptitude and Legal Reasoning:**
   This subject will test candidate's interest towards the study of Law, Legal aptitude and problem solving ability. Questions will be framed with the help of legal prepositions and a set of facts to which the said prepositions have to be applied. Some prepositions may not be true in the real sense. Candidates will have to assume truth of these prepositions and answer the questions drawing well supported conclusions.

2. **General Knowledge with Current Affairs:**
   The topics such as History (Ancient, Medieval and Modern), Geography, General Science, Economics, Civics and the Current Affairs of the past One Year. The subject is to assess the knowledge of the recent happening and awareness of the World.

3. **Logical and Analytical Reasoning:**
   The subject is to test the candidate's ability to identify patterns, logical links and rectify illogical arguments. It will include wide analogies, completing arguments, drawing well supported conclusions, reasoning by analogy, applying principles or rules. Further the subject is to measure the ability to understand the structure, relationship and to draw logical conclusions about the structures. It includes reasoning deductively from the set of statements and rules or principles that describes the relationship among persons, things or events.

4. **English:**
   This section will consist the questions on the areas like Vocabulary (Synonyms, Antonyms, analogies etc.) Proficiency (Idioms and Phrases, One word Substitution, Sentence Improvement and rearrangement, fill in the Blanks etc.) English Usage Errors (Common errors, Spotting errors, inappropriate usage of words, spelling mistakes etc.) English Comprehension with minimum two passages followed by Five to Ten questions that test reading and reasoning abilities.

5. **Basic Mathematics**:
   This is to test the numerical ability of candidates. The Mathematics questions will be set from std 10th level of various topics including Profit and Loss, Speed and Distance, Time and Work, Algebra, Average, Venn Diagram.
   - The Questions will be Objective Multiple Choice Questions with Four Options.
   - There is No Negative Marking.
   - The time allotted is 2 Hours i.e. One Hundred and Twenty Minutes.
   - The Questions will be in English and Marathi.
Annexure C
Syllabus and Marking Scheme for B.P.Ed CET

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Sections</th>
<th>No. of Questions</th>
<th>Marks per Question</th>
<th>Total Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>General Knowledge</td>
<td>15</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>2</td>
<td>Mental Ability</td>
<td>15</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>Teacher Aptitude and Sports Related Knowledge</td>
<td>20</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>50</strong></td>
<td></td>
<td><strong>50</strong></td>
</tr>
</tbody>
</table>

Contents of the Syllabus:

1. General Knowledge:
   a) General Science and Technology
   b) General History and Geography of India
   c) Civics and Political Science (India)
   d) Literature
   e) Current Affairs at National Level.

2. Mental Ability:
   a) Logical Diagrams
   b) Directional Sense
   c) Relationship
   d) Coding and Decoding
   e) Number System

3. Teacher Aptitude and Sports Related Knowledge:
   a) Professional Commitment
   b) Communication
   c) Sports Awards (Central and State Govt.)
   d) Olympic Games
   e) Current Affairs on Various Sports and Games

➢ The questions will be Objective Multiple Choice Questions with Four options
➢ There is no negative marking. The time allotted is One Hour (Sixty minutes)
➢ Medium of Questions will be English, Marathi and Hindi.
Syllabus and Marking Scheme for MAH-B.P.Ed. - Physical Efficiency Test (Field Test)

The candidates will also have to appear for Physical Efficiency Test (Field Test) to be conducted only at following selected cities in Maharashtra: Amravati, Nagpur, Pune, Mumbai, Aurangabad, Jalgaon and Barshi.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Field Test Sections</th>
<th>Total Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4x10 Shuttle Run Test</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>Sit and Reach</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Standing Broad Jump Test</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Sit Ups Test</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>Medicine Ball Throw Test (2kg)</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>50</td>
</tr>
</tbody>
</table>

DESCRIPTION OF TESTS

1. **4 x 10 Meters Shuttle Run Test**:
   - **Equipment**: Two blocks of wood (2l x 2l x 4l), stopwatches and marking powder.
   - **Test Administration**: Two parallel lines are marked on the floor 10 meters apart. The two wooden blocks are placed behind one of the lines. The subject is asked to start from behind the other line. On the signal ready? Go, the timer starts the watch and the subject runs towards the blocks, picks-up one block, runs back and picks-up the second block to be carried back across the starting line. As soon as the second block is placed on the ground, the timer stops the watch and records the time.
   - **Scoring**: The time is recorded to the nearest 10th of a second as the score of the test item.
   - **Rules**: Only one trial shall be allowed unless the teacher believes the pupil has not had a fair opportunity.

2. **Sit and Reach Test**:
   - **Purpose**: This test measures the flexibility of the lower back and hamstring muscles.
   - **Equipment**: Sit and Reach Box
   - **Procedure**: This test involves sitting on the floor with legs stretched out straight ahead. Shoes shall be removed. The soles of the feet are placed flat against the box. Both knees shall be locked and pressed flat to the floor - the tester may assist by holding them down. With the palms facing downwards, and the hands-on-top of each other, the subject reaches forward along the measuring line as far as possible. Ensure that the hands remain at the same level, not one reaching further forward than the other. After some practice reaches, the subject reaches out and holds that position for at least two seconds while the distance is recorded. Make sure there are no jerky movements.
   - **Scoring**: The score is recorded to the nearest centimeter or half inch as the distance reached by the hand. Some test versions use the level of the feet as the zero mark.

1) **Standing Broad Jump Test**:
   - **Purpose**: This test measures the power of legs in jumping horizontal distance.
   - **Equipment**: Floor, mat or long jump pit may be used, measuring tape, marking tape/chalk or a peg.
Test Administration:
A demonstration of the standing broad jump will be given to a group of subjects to be tested. The subject will be asked to stand behind the starting line with the feet parallel to each other. The subject will be instructed to jump as farthest as possible by bending knees and swinging arms to take off for the broad jump in the forward direction.

Scoring: The distance between the starting line and the nearest point of landing provides the score of the test. The best performance (maximum distance) out of three trials will be recorded in meters as the final score of the test.

2) Sit-Ups (Bent Knee):

Equipment: Clean floor, mat, or dry turf and stopwatch.
Description: The pupil lies on the back with the knees bent, feet on the floor, and heels not more than 12 inches (30.48 cm) from the buttocks. The angle at the knees shall less than 90 degrees. The pupil puts the handson the back of the neck with fingers clasped and places the elbows squarely on the mat, floor, or turf. The pupil’s feet are held by his or her partner to keep them in touch with the surface. The pupil tightens the abdominal muscles and brings the head and elbows forward as he or she curls up, finally touching the elbows to the knees. This action constitutes one sit-up. The pupil returns back to the starting position with his elbows on the surface before he sits up again. The timer gives the signal Ready? Go!, and the sit-up performance is started on the word Go! Performance is stopped on the word stop. The number of correctly executed sit-ups performed in 60 seconds is recorded as the score.

Rules: Only one trial shall be allowed unless the teacher believes the pupil has not had a fair Opportunity.
Scoring: Record the number of correctly executed sit-ups in 60 seconds.

3) Medicine Ball Throw:

Purpose: This test is used to measure the power of arms and shaller girdles.
Equipment: A Medicine ball of 2 Kg for men and 1 Kg for women, marking materials and measuring tape.
Test Administration:
a) The Athlete sits on the floor with his legs fully extended, feet 24 inches apart and the back against a wall.
b) The ball is held with the hands on the side and slightly behind the center and back against the center of the chest. The forearms are positioned parallel to the ground.
c) The athlete throws the medicine ball vigorously as far straight forward as he can while maintaining the back against the wall.
d) The distance will be measured from the wall to where the ball lands in meters.
e) Each subject will be given two trials.
Scoring: The longest distance will be measured in meters will be the score of the test.
Annexure D
Syllabus and Marking Scheme for M.P.Ed CET

The Online CET is comprising of one paper with five sections:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Sections</th>
<th>No. of Questions</th>
<th>Marks per Question</th>
<th>Total Marks</th>
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<tbody>
<tr>
<td>1</td>
<td>Foundation of Physical Education</td>
<td>10</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>Anatomy , Physiology and Health Education</td>
<td>10</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Teaching Methodology</td>
<td>10</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Officiating Coaching and Management in Physical Education</td>
<td>10</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>Tests, Measurements and Evaluation in Physical Education</td>
<td>10</td>
<td>1</td>
<td>10</td>
</tr>
</tbody>
</table>

Total 50 50

Contents of Sections:
1) **Foundation of Physical Education** :
   (a) History of Physical Education (b) Psychological Foundation of Physical Education (c) Philosophical Foundation of Physical Education (d) Sociological Foundation of Physical Education (e) Various commissions , schemes, policies, awards and role and contribution of Physical Education and Sports Institutes.

2) **Anatomy , Physiology and Health Education** :
   (a) Need and importance of Anatomy in Physical education (b) Exercise and Various Body Systems (c) Health Education – Need and importance in school curriculum. (d) Posture, Postural deformities and corrective exercises (e) Role of Physical Education Teacher in AIDS and Pollution awareness.

3) **Teaching Methodology** :
   (a) Various teaching methods and principles (b) Unit Planning - Types, Pre-preparation Unit planning and Year Planning (c) Types of Competitions –Intramural and Extramural (d) Maxims of teaching, Audio visual aids (e) Place of computer and internet in teaching.

4) **Officiating Coaching and Management in Physical Education** :
   (a) Principles, Purpose of Officiating and coaching (b) Periodization and its role in coaching (c) Skills, techniques and rules of various games and sports (d) Duties and responsibilities of officials (e) Principles and need of sport management.

5) **Tests, Measurements and Evaluation in Physical Education** :
   (a) Physical Fitness Test – HRPF, Motor fitness. (b) Sports skill Test- Football, Volleyball, Basketball, Badminton and Handball (c) Need and importance of tests (d) Criteria of selection of tests (e) Evaluation –Types, Principles and purpose.

➢ The questions will be objective Multiple Choice Questions with Four options.
➢ There is no Negative marking.
➢ The time allotted is One Hour (Sixty Minutes).
➢ Medium of Questions will be English, Marathi and Hindi.
Syllabus and Marking Scheme for MAH-M.P.Ed. -Physical Efficiency Test (Field Test)

The candidates will also have to appear for Physical Efficiency Test (Field Test) to be conducted only at following selected cities in Maharashtra: Amravati, Nagpur, Pune, Mumbai, Aurangabad, Jalgaon and Barshi.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Field Test Sections</th>
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<tr>
<td>1</td>
<td>4x10 Shuttle Run Test</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>Sit and Reach</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Standing Broad Jump Test</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Sit Ups Test</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>Medicine Ball Throw Test (2kg)</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>50</td>
</tr>
</tbody>
</table>

DESCRIPTION OF TESTS

1) 4x10 Meters Shuttle Run Test:
   **Equipment:** Two blocks of wood (2 i x 2 i x 4 i), stopwatches and marking powder.
   **Test Administration:** Two parallel lines are marked on the floor 10 meters apart. The two wooden blocks are placed behind one of the lines. The subject is asked to start from behind the other line. On the signal ready? Go, the timer starts the watch and the subject runs towards the blocks, picks-up one block, runs back to the starting line, places the block behind the starting line, runs back and picks-up the second block to be carried back across the starting line. As soon as the second block is placed on the ground, the timer stops the watch and records the time.
   **Scoring:** The time is recorded to the nearest 10th of a second as the score of the test item.
   **Rules:** Only one trial shall be allowed unless the teacher believes the pupil has not had a fair opportunity.

2) Sit and Reach Test:
   **Purpose:** This test measures the flexibility of the lower back and hamstring muscles.
   **Equipment:** Sit and Reach Box
   **Procedure:** This test involves sitting on the floor with legs stretched out straight ahead. Shoes shall removed. The soles of the feet are placed flat against the box. Both knees shall locked and pressed flat to the floor-the tester may assist by holding them down. With the palms facing downwards, and the hands on top of each other, the subject reaches forward along the measuring line as far as possible. Ensure that the hands remain at the same level, not one reaching further forward than the other. After some practice reaches, the subject reaches out and holds that position for at least two seconds while the distance is recorded. Make sure there are no jerky movements.
   **Scoring:** The score is recorded to the nearest centimeter or half inch as the distance reached by the hand. Some test versions use the level of the feet as the zero mark.

3) Standing Broad Jump Test:
   **Purpose:** This test measures the power of legs in jumping horizontal distance.
   **Equipment:** Floor, mat or long jump pit may be used, measuring tape, marking tape /chalk or a peg.
**Test Administration:**

A demonstration of the standing broad jump will be given to a group of subjects to be tested. The subject will be asked to stand behind the starting line with the feet parallel to each other. The subject will be instructed to jump as farthest as possible by bending knees and swinging arms to take off for the broad jump in the forward direction.

**Scoring:** The distance between the starting line and the nearest point of landing provides the score of the test. The best performance (maximum distance) out of three trials will be recorded in meters as the final score of the test.

4) **Sit-Ups (Bent Knee):**

**Equipment:** Clean floor, mat, or dry turf and stopwatch.

**Description:**

The pupil lies on the back with the knees bent, feet on the floor, and heels not more than 12 inches (30.48 cm) from the buttocks. The angle at the knees shall less than 90 degrees. The pupil puts the handson the back of the neck with fingers clasped and places the elbows squarely on the mat, floor, or turf. The pupil’s feet are held by his or her partner to keep them in touch with the surface. The pupil tightens the abdominal muscles and brings the head and elbows forward as he or she curls up, finally touching the elbows to the knees. This action constitutes one sit-up. The pupil returns back to the starting position with his elbows on the surface before he sits up again. The timer gives the signal Ready? Go!, and the sit-up performance is started on the word Go! Performance is stopped on the word stop. The number of correctly executed sit-ups performed in 60 seconds is recorded as the score.

**Rules:** Only one trial shall be allowed unless the teacher believes the pupil has not had a fair Opportunity.

**Scoring:** Record the number of correctly executed sit-ups in 60 seconds.

5) **Medicine Ball Throw:**

**Purpose:** This test is used to measure the power of arms and shaker girdles.

**Equipment:** A Medicine ball of 2 Kg for men and 1 Kg for women, marking materials and measuring tape.

**Test Administration:**

a) The Athlete sits on the floor with his legs fully extended, feet 24 inches apart and the back against a wall.

b) The ball is held with the hands on the side and slightly behind the center and back against the center of the chest. The forearms are positioned parallel to the ground.

c) The athlete throws the medicine ball vigorously as far straight forward as he can while maintaining the back against the wall.

d) The distance will be measured from the wall to where the ball lands in meters.

e) Each subject will be given two trials.

**Scoring:** The longest distance will be measured in meters will be the score of the test.
ANNEXURE E
Syllabus and Marking Scheme for B.Ed. CET

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Topics</th>
<th>No. of Questions</th>
<th>Marks per Question</th>
<th>Maximum Marks</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Mental Ability</td>
<td>40</td>
<td>1</td>
<td>40</td>
</tr>
<tr>
<td>2</td>
<td>General Knowledge</td>
<td>30</td>
<td>1</td>
<td>30</td>
</tr>
<tr>
<td>3</td>
<td>Teacher Aptitude</td>
<td>30</td>
<td>1</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Contents of Sections:

1) **Mental Ability**:
The content of this test aims to judge your reasoning power it also helps to judge how accurate you can think. This test will contain questions based on Series, Syllogism, Coding-Decoding, Relationship, Analogies, Classification, Problems on Dice, etc., either in Verbal or Non-Verbal form.

2) **General Knowledge**:
The aim of this section is to test how well you are acquainted with the happenings in the surroundings at Local, National, International Level including Past Events, Current Affairs including, Science and Technology, History, Geography, Civics, Political Science and Literature in General.

3) **Teacher Aptitude**:
The Test aims to know your capacity to become teacher. It will contain questions related to your keenness to update your knowledge, leadership qualities awareness about changes in Education and Society, Communication and Professional Commitment etc.

- The Test will comprise of Multiple Choice Objective Type Questions with Four Options.
- There is no Negative Marking System for this Test.
- Test Duration: 90 Minutes.
- Medium of CET: English and Marathi.

**MAH-B.Ed. English Language Content Test (ELCT)**

Candidates who desire to seek admission to English Medium Colleges of Education will have to appear and qualify the ELCT-2019.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Topics</th>
<th>No. of Questions</th>
<th>Marks per Question</th>
<th>Maximum Marks</th>
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<tbody>
<tr>
<td>1</td>
<td>Reading Comprehension</td>
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<td>20</td>
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<tr>
<td>2</td>
<td>Vocabulary Focus</td>
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<td>1</td>
<td>05</td>
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<tr>
<td>3</td>
<td>Grammar Focus</td>
<td>08</td>
<td>1</td>
<td>08</td>
</tr>
<tr>
<td>4</td>
<td>Sentence Formation</td>
<td>07</td>
<td>1</td>
<td>07</td>
</tr>
<tr>
<td>5</td>
<td>Phonetics</td>
<td>03</td>
<td>1</td>
<td>03</td>
</tr>
<tr>
<td>6</td>
<td>Verbal Idioms and Proverbs</td>
<td>05</td>
<td>1</td>
<td>05</td>
</tr>
<tr>
<td>7</td>
<td>Figures of Speech</td>
<td>02</td>
<td>1</td>
<td>02</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>50</strong></td>
<td></td>
<td><strong>50</strong></td>
</tr>
</tbody>
</table>
The Test will comprise of Multiple-Choice Objective Type Questions with Four Options.
There is no Negative Marking System for this Test.
- Test Duration: 60 Minutes
- Medium of CET: English.
- Mode of Examination - Online

ELCT will be conducted for the Candidates opting for English Medium Colleges after the B.Ed. CET.
Annexure F

Syllabus and Marking Scheme for B.A.B.Ed. /B.Sc.B.Ed. CET

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Sections</th>
<th>No. of Questions</th>
<th>Marks per Question</th>
<th>Maximum Marks</th>
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<tbody>
<tr>
<td>1</td>
<td>General Knowledge</td>
<td>40</td>
<td>1</td>
<td>40</td>
</tr>
<tr>
<td>2</td>
<td>Mental Ability</td>
<td>30</td>
<td>1</td>
<td>30</td>
</tr>
<tr>
<td>3</td>
<td>Teaching Aptitude</td>
<td>30</td>
<td>1</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Contents of Sections:

1) **General Knowledge (40 Marks):**
   a) Basic General Knowledge :
      (a) Books and Authors
      (b) Awards and Honours
      (c) Important National Days.
      (d) Persons in News
      (e) Important Current Events.
   b) Science and Technology:
      (a) General Science (up to SSC Level)
      (b) Various Inventions
      (c) Technology.
   c) History (up to SSC Level)
   d) Geography (up to SSC Level)
   e) Indian Civics and Economics (up to SSC Level)
   f) Indian Constitution with reference to Education.

2) **Mental Ability (30 Marks):**
This section aims to judge the reasoning power and accuracy in thinking. This section will cover the areas like: i) Reasoning Ability ii) Statements and Conclusions iii) Letter and Number Series iv) Analogy v) Odd Man Out vi) Numerical Ability vii) Logical Problems viii) Coding- Decoding.

3) **Teaching Aptitude (30 Marks):**
Teaching aptitude will cover the areas like i) Attitude towards Education, Candidates and Teaching Profession ii) Leadership Qualities iii) Emotional and Social Adjustment iv) Intra-personal relations and Intra-personal skills.
   v) General awareness and Interest in teaching.

➢ The questions will be objective Multiple Choice Questions with Four options.
➢ There is No Negative Marking.
➢ The time allotted is One Hour Thirty Minutes i.e. Ninety Minutes.
➢ The Questions will be in English and Marathi.
➢ Mode of Examination - Online
Annexure G

Syllabus and Marking Scheme for B.Ed.-M.Ed. (Integrated) CET

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Sections</th>
<th>No. of Questions</th>
<th>Marks per Question</th>
<th>Maximum Marks</th>
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<td>40</td>
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<tr>
<td>2</td>
<td>General Knowledge</td>
<td>30</td>
<td>1</td>
<td>30</td>
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<tr>
<td>3</td>
<td>Mental Ability</td>
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<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Contents of Sections:

1) Teaching Aptitude (40 Marks):
Teaching aptitude will cover the areas like
1. Attitude towards Education, Candidates and Teaching Profession
2. Interest in Teaching
3. Leadership Qualities
4. Emotional, Moral, Ethical and Social Adjustment
5. Intra-personal relations and Intra-personal skills
6. Class, Group, Community Management
7. vii) General Awareness of Contemporary issues pertaining to Secondary and Higher Secondary Education.

2) General Knowledge (30 Marks) :
1) Basic General Knowledge:
   (a) Books and Authors
   (b) Awards and Honors
   (c) National and International Days.
   (d) Persons in News
   (e) Current Events with reference to Education.
2) Science and Technology:
   (a) General Science (up to SSC Level)
   (b) Various Inventions
   (c) Technology.
3) History (up to SSC Level)
4) Geography (up to SSC Level)
5) Indian Civics and Economics (up to SSC Level)
6) Indian Constitution with reference to Education.

3) Mental Ability (30 Marks):
This section aims to judge the reasoning power and accuracy in Thinking. This section will cover the areas like:
   a) Reasoning Ability
   b) Blood Relations
   c) Statements and Conclusions
   d) Letter and Number Series
   e) Analogy
   f) Odd man out
   g) Numerical Ability
   h) Logical Problems
i) Coding- Decoding,
➢ The questions will be objective Multiple Choice Questions with Four options.
➢ There is No Negative Marking.
➢ The time allotted is One Hour Thirty Minutes i.e. Ninety Minutes.
➢ The Questions will be in English and Marathi.
➢ Mode of Examination - Online.

Annexure H

Syllabus and Marking Scheme for M.Ed. CET

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Sections</th>
<th>No. of Questions</th>
<th>Marks per Question</th>
<th>Maximum Marks</th>
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</thead>
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<td>20</td>
<td>1</td>
<td>20</td>
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<tr>
<td>2</td>
<td>Educational Psychology</td>
<td>20</td>
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<td>20</td>
</tr>
<tr>
<td>3</td>
<td>Educational Evaluation</td>
<td>20</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>School Administration and Management</td>
<td>20</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>5</td>
<td>Information and Communication Technology and Research Aptitude</td>
<td>20</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

Contents of Sections:

(a) Educational Philosophy:
Idealism, Realism, Naturalism and Pragmatism.

Philosophers:
Rabindranath Tagore, Mahatma Gandhi, Mahatma Phule, Rousseau, John Dewey and Plato.

(b) Educational Sociology:
Education as an instrument of Change, Globalization, Modernization, National Integration, Value Education, Women Empowerment and Inclusive Education.

Educational Psychology:
Personality, Intelligence, Theories of Learning, Mental Health, Social Psychology, Models of Teaching, Constructivism, Guidance and Counseling (Concept).

(a) Educational Evaluation:
Concept, Types, Techniques, Methods, Taxonomy of Objectives.

(b) Educational Statistics:
Measures of Central Tendency and Measures of Variability.

1. School Administration and Management:

2. Information and Communication Technology & Research Aptitude:
Use of Computers in Education (with reference to teaching, Learning, Evaluation and Administration) and Research Aptitude.

➢ The questions will be objective Multiple Choice Questions with Four options.
➢ There is No Negative Marking.
➢ The time allotted is One Hour Thirty Minutes i.e. Ninety Minutes.
➢ The Questions will be in English and Marathi.
➢ Mode of Examination – Online

II) Medical Education

Annexure I

The syllabus for Common Entrance Test shall be same as prescribed by Maharashtra University of Health Science, Nashik and Shall cover all the subjects of respective undergraduate course. The distribution of MCQ’s at respective common entrance test are as follows:

(A) PGP-CET 2020: Per Question one mark.

<table>
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</tr>
<tr>
<td>2.</td>
<td>Physiology</td>
<td>04</td>
</tr>
<tr>
<td>3.</td>
<td>Biochemistry</td>
<td>02</td>
</tr>
<tr>
<td>4.</td>
<td>Fundamentals of Exercise Therapy</td>
<td>05</td>
</tr>
<tr>
<td>5.</td>
<td>Fundamentals of Electro Therapy</td>
<td>05</td>
</tr>
<tr>
<td>6.</td>
<td>Pharmacology</td>
<td>02</td>
</tr>
<tr>
<td>7.</td>
<td>Pathology &amp; Microbiology</td>
<td>04</td>
</tr>
<tr>
<td>8.</td>
<td>Psychology</td>
<td>01</td>
</tr>
<tr>
<td>9.</td>
<td>Psychiatry</td>
<td>01</td>
</tr>
<tr>
<td>10.</td>
<td>Electrical Agents</td>
<td>07</td>
</tr>
<tr>
<td>11.</td>
<td>Kinesio Therapeutics</td>
<td>07</td>
</tr>
<tr>
<td>12.</td>
<td>General Surgery &amp; Orthopedics</td>
<td>06</td>
</tr>
<tr>
<td>13.</td>
<td>Medicine</td>
<td>06</td>
</tr>
<tr>
<td>14.</td>
<td>OBGY</td>
<td>03</td>
</tr>
<tr>
<td>15.</td>
<td>Physical Diagnosis &amp; Manipulative Skills</td>
<td>08</td>
</tr>
<tr>
<td>16.</td>
<td>Physiotherapy in Musculoskeletal Condition</td>
<td>10</td>
</tr>
<tr>
<td>17.</td>
<td>Physiotherapy in Neurosciences</td>
<td>10</td>
</tr>
<tr>
<td>18.</td>
<td>Physiotherapy in General Medical &amp; Gen. surgical condition</td>
<td>10</td>
</tr>
<tr>
<td>19.</td>
<td>Physiotherapy in Community Health</td>
<td>05</td>
</tr>
</tbody>
</table>

Total Marks :- 100

(B) PGO-CET 2020: No. of Questions

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Topic</th>
<th>Max. Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Anatomy</td>
<td>04</td>
</tr>
<tr>
<td></td>
<td>Subject</td>
<td>Marks</td>
</tr>
<tr>
<td>---</td>
<td>---------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>2</td>
<td>Physiology</td>
<td>04</td>
</tr>
<tr>
<td>3</td>
<td>Biochemistry</td>
<td>02</td>
</tr>
<tr>
<td>4</td>
<td>Fundamentals of OT-I</td>
<td>03</td>
</tr>
<tr>
<td>5</td>
<td>Fundamentals of OT-II</td>
<td>03</td>
</tr>
<tr>
<td>6</td>
<td>Pharmacology</td>
<td>02</td>
</tr>
<tr>
<td>7</td>
<td>Pathology &amp; Microbiology</td>
<td>04</td>
</tr>
<tr>
<td>8</td>
<td>Psychology</td>
<td>04</td>
</tr>
<tr>
<td>9</td>
<td>Ergotherapeutics-I</td>
<td>05</td>
</tr>
<tr>
<td>10</td>
<td>Ergotherapeutics-II</td>
<td>05</td>
</tr>
<tr>
<td>11</td>
<td>Medicine</td>
<td>06</td>
</tr>
<tr>
<td>12</td>
<td>General Surgery &amp; Orthopedics</td>
<td>06</td>
</tr>
<tr>
<td>13</td>
<td>Work Physiology Ergonomics</td>
<td>02</td>
</tr>
<tr>
<td>14</td>
<td>Psychiatry</td>
<td>04</td>
</tr>
<tr>
<td>15</td>
<td>OT in Medical Conditions</td>
<td>06</td>
</tr>
<tr>
<td>16</td>
<td>OT in Surgical Conditions</td>
<td>06</td>
</tr>
<tr>
<td>17</td>
<td>Advances in OT and Rehabilitation</td>
<td>05</td>
</tr>
<tr>
<td>18</td>
<td>OT in Neurological and developmental conditions</td>
<td>07</td>
</tr>
<tr>
<td>19</td>
<td>OT in Orthopedic Conditions</td>
<td>07</td>
</tr>
<tr>
<td>20</td>
<td>OT in Psychiatric Conditions</td>
<td>07</td>
</tr>
<tr>
<td>21</td>
<td>Community based OT (PSM-OP)</td>
<td>05</td>
</tr>
<tr>
<td>22</td>
<td>Biostatistics and Research Methodology</td>
<td>03</td>
</tr>
</tbody>
</table>

Total Marks :- 100
### (B) M.Sc. (SLP) / M.Sc. (Aud.) - CET 2020:

Per Question One mark.

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Topic</th>
<th>Max. Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Anatomy related to Speech, Language and Hearing</td>
<td>04</td>
</tr>
<tr>
<td>2.</td>
<td>Physiology related to Speech, Language and Hearing</td>
<td>04</td>
</tr>
<tr>
<td>3.</td>
<td>Linguistics</td>
<td>05</td>
</tr>
<tr>
<td>4.</td>
<td>Psychology</td>
<td>05</td>
</tr>
<tr>
<td>5.</td>
<td>Acoustics &amp; Electronics</td>
<td>05</td>
</tr>
<tr>
<td>6.</td>
<td>Paediatrics</td>
<td>02</td>
</tr>
<tr>
<td>7.</td>
<td>Neurology</td>
<td>02</td>
</tr>
<tr>
<td>8.</td>
<td>Statistics</td>
<td>05</td>
</tr>
<tr>
<td>9.</td>
<td>ENT</td>
<td>04</td>
</tr>
<tr>
<td>10.</td>
<td>Community Oriented Service in Speech &amp; Hearing</td>
<td>04</td>
</tr>
<tr>
<td>11.</td>
<td>Diagnostic Audiology</td>
<td>07</td>
</tr>
<tr>
<td>12.</td>
<td>Paediatric Audiology</td>
<td>07</td>
</tr>
<tr>
<td>13.</td>
<td>Hearing Aid and Cochlear Implant &amp; ALDs</td>
<td>06</td>
</tr>
<tr>
<td>14.</td>
<td>Management of HI</td>
<td>05</td>
</tr>
<tr>
<td>15.</td>
<td>Noise &amp; Hearing Conservation</td>
<td>05</td>
</tr>
<tr>
<td>16.</td>
<td>Childhood Speech and Language Disorder</td>
<td>05</td>
</tr>
<tr>
<td>17.</td>
<td>Articulation &amp; Cleft Lip/Palate &amp; Swallowing Disorders</td>
<td>05</td>
</tr>
<tr>
<td>18.</td>
<td>Voice Disorders and Laryngectomy</td>
<td>05</td>
</tr>
<tr>
<td>19.</td>
<td>Fluency Disorders</td>
<td>05</td>
</tr>
<tr>
<td>20.</td>
<td>Adult Neurogenic Disorders</td>
<td>05</td>
</tr>
<tr>
<td>21.</td>
<td>Neurogenic Speech Disorders</td>
<td>05</td>
</tr>
</tbody>
</table>

Total Marks :- 100

---

### (D) M.Sc. (P&O) - CET 2020 Per question one mark

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Topic</th>
<th>Max. Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Anatomy</td>
<td>04</td>
</tr>
<tr>
<td>2.</td>
<td>Physiology</td>
<td>02</td>
</tr>
<tr>
<td>3.</td>
<td>Pathology</td>
<td>02</td>
</tr>
<tr>
<td>4.</td>
<td>Materials, Tools, Equipment, P &amp; O Workshop Technology</td>
<td>02</td>
</tr>
<tr>
<td>5.</td>
<td>Mechanics &amp; Applied Mechanics &amp; Strength of Materials</td>
<td>02</td>
</tr>
<tr>
<td>6.</td>
<td>Engineering Drawing</td>
<td>02</td>
</tr>
<tr>
<td>7.</td>
<td>Biomechanics - I</td>
<td>03</td>
</tr>
<tr>
<td>8.</td>
<td>Prosthetics &amp; Orthotics Science - I</td>
<td>08</td>
</tr>
</tbody>
</table>
9. Physical Medicine Rehabilitation | 04
10. Orthopaedics & Amputation Surgery | 04
11. Basic Electronics Electro Technology | 04
12. Computer Studies - I | 02
13. Biomechanics - III | 03
14. Prosthetics & Orthotics Science - I I | 08
15. P & O Workshop Management | 05
16. Computer Studies - II | 04
17. Biomechanics - III | 04
18. Mobility Rehabilitation Aids | 04
19. Prosthetics & Orthotics Science - III | 08
20. Prosthetics & Orthotics Science - IV | 25

Total Marks :- 100

Duration of paper will be of 1 hours & 30 minutes. Medium of examination will be English.
No candidate will be allowed to appear for the examination unless he/she holds downloaded an Admit Card and Photo ID proof as mentioned above.
The candidate will follow the instructions given at the On-line examination center.

III) ART Education

Annexure J

The MAH-AAC-CET 2020 will consist of three practical papers each paper is of 50 marks and one objective type theory online paper which is of 40 marks.

<table>
<thead>
<tr>
<th>Paper</th>
<th>Subject</th>
<th>No of Questions</th>
<th>Mark(s) per question</th>
<th>Total Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper I</td>
<td>Design (Practical)</td>
<td>1</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Paper II</td>
<td>Object Drawing (Practical)</td>
<td>1</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Paper III</td>
<td>Memory Drawing (Practical)</td>
<td>1</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Paper IV</td>
<td>General Knowledge (Online/ Off line) MCQ</td>
<td>40</td>
<td>1</td>
<td>40</td>
</tr>
</tbody>
</table>

There is no choice among the questions, i.e. all questions have to be answered.

- The candidate seeking admission to Bachelor of Fine Art (Fine Art and Applied Art) degree courses it is mandatory that the candidate must appear for all papers. (Online & Offline both Sessions)

Candidates will be provided with separate Computer Machine to solve the Online MCQ based General Knowledge paper. At the end of paper, candidate will submit the paper online.
IV) Technical Education

Annexure K

1. Syllabus and Marking Scheme for MAH-MBA/ MMS CET 2021

Contents:

A) Logical / Abstract Reasoning.

This shall include the questions to measure how quickly and accurately you can think. This test may have questions based on figures and diagrams and also questions on verbal reasoning.

B) Quantitative Aptitude.

This shall include the questions to know how fast and accurate you can work with numbers, do numerical calculations understand various arithmetic problems involving ratio and proportion, percentage, etc. This test also helps to measure your power of quantitative reasoning, interpretation of tables, common graphs and charts.

C) Verbal Ability and Reading Comprehension

This shall include passages with questions based on their contents to test your comprehension. Your English Language ability would be tested through questions on grammar, vocabulary, sentence completion, synonyms, antonyms, comprehension of passages etc. Your English language ability would be tested through questions on (1) understanding of the contents of the passage and (2) choice of appropriate words, phrases, expressions and similar language skills.

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Topics</th>
<th>No of Questions</th>
<th>Mark per Question</th>
<th>Maximum Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Logical Reasoning</td>
<td>75</td>
<td>1</td>
<td>75</td>
</tr>
<tr>
<td>2</td>
<td>Abstract Reasoning</td>
<td>25</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>Quantitative Aptitude</td>
<td>50</td>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td>4</td>
<td>Verbal Ability / Reading Comprehension</td>
<td>50</td>
<td>1</td>
<td>50</td>
</tr>
</tbody>
</table>

The test will comprise of multiple choice objective type questions (Five Options)

There is no negative marking System for this test.

Test Duration: 150 Minutes

Medium of CET: English

Mode of Examination - Online
Annexure L

5. Syllabus and Marking Scheme for Bachelor of Hotel Management and Catering Technology MAH-BHMCT CET 2021

Contents:

The Online test will have 100 Questions based on Reasoning (Verbal as well as Arithmetic), English Language & General Awareness including questions on culture, current national, international affairs, trade & commerce, sports, scientific inventions and discoveries, travel/tourism etc.

<table>
<thead>
<tr>
<th>Topics</th>
<th>No of Questions</th>
<th>Marks per Question</th>
<th>Maximum Marks</th>
<th>Total Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language</td>
<td>40</td>
<td>1</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Reasoning (Verbal and Arithmetic)</td>
<td>30</td>
<td>1</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>General Knowledge &amp; Awareness including questions on current national, international affairs, culture, trade &amp; commerce, sports, scientific inventions and discoveries, travel/tourism etc.</td>
<td>30</td>
<td>1</td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

The test will comprise of multiple choice objective type questions (Four Options)

There is no negative marking system for this test

Test Duration: 90 minutes

Medium of CET: English

Mode of Examination - Online
## Annexure M

3. Syllabus and Marking Scheme for Master of Hotel Management and Catering Technology MAH-MHMCET CET 2021

### Contents:

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Topics</th>
<th>No of Questions</th>
<th>Mark per Question</th>
<th>Maximum Marks</th>
<th>Total Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Food and Beverage Operation&lt;br&gt;Food and Beverage Service Operations, related terminology, Inventory control, Food &amp; Beverage equipment and infrastructure &amp; its Management.</td>
<td>10</td>
<td>02</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Food Production&lt;br&gt;Food Production operations, Indian &amp; International cuisines and related terminology, Bakery and Confectionary, Hygiene and Safety standards, Kitchen equipment and Infrastructure &amp; its Management.</td>
<td>10</td>
<td>02</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Rooms division&lt;br&gt;Housekeeping and front office operations and related terminology, fabrics &amp; textiles, Planning &amp; designing of hospitality organisations, Laundry operations and procedures &amp; its Management.</td>
<td>10</td>
<td>02</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>English&lt;br&gt;(Word meaning, comprehension, antonyms and synonyms, idioms and phrases, word spellings)</td>
<td>10</td>
<td>02</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Hospitality Industry related&lt;br&gt;(Types of tourism, hotel and restaurant brands and segments, Airlines, hospitality terms, hospitality related organizations and regulatory bodies) &amp; its Management.</td>
<td>10</td>
<td>02</td>
<td>20</td>
<td></td>
</tr>
</tbody>
</table>

The test will comprise of multiple choice objective type questions (Four Options)

There is no negative marking 'System for this test.

Test Duration: 60 minutes

Medium of CET: English

Mode of Examination - Online or Offline as the case may be
Annexure N

Syllabus and Marking Scheme for Master of Architecture MAH-M. Arch CET 2021

Contents:

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Topics</th>
<th>No of Questions</th>
<th>Mark/s per Question</th>
<th>Maximum Marks</th>
</tr>
</thead>
</table>
| 1   | Building Technology  
Building systems, Building Science and services, concept of green building, construction materials. | 10              | 2 marks             | 20 Marks      |
| 2   | Environment  
Concept and Ecology and landscape design, Environment laws and regulations, Environment design strategies w.r.t site. | 10              | 2 marks             | 20 Marks      |
| 3   | Architecture History and humanities  
Awareness of Art and culture and architectural theory, major architecture movements in the world and in India. | 10              | 2 marks             | 20 Marks      |
| 4   | Settlement, design and planning  
Urbanization, Urbanism, Urban and rural system, Infrastructure planning theory and history. | 10              | 2 marks             | 20 Marks      |
| 5   | Current Architecture Practice  
Awareness of National building code, Town planning laws and development control regulation, knowledge of Regulatory and professional bodies on architecture. | 10              | 2 marks             | 20 Marks      |

The test will comprise of multiple choice objective type questions (Four Options)

There is no negative marking System for this test.

Test Duration: 60 minutes

Medium of CET: English

Mode of Examination - Online or Offline as the case may be

***
Annexure O

2. Syllabus & Marking Scheme for Master of Computer Applications MAH-MCA-CET 2021

The Online CET would comprise 4 sections viz. Mathematics & Statistics, Logical / Abstract Reasoning, English comprehension and verbal ability and Computer Concepts of total 200 marks , with composite time of 90 minutes duration.  

Syllabus :

a) Mathematics & Statistics: The questions will cover the following topics of high school mathematics (up to the 12th standard)

- Algebra : Fundamental operations in Algebra, Expansion, factorization, Quadratic equations, indices, logarithms, arithmetic, geometric and harmonic progressions, binomial theorem, permutations and combinations.
- Co-ordinate Geometry : Rectangular Cartesian co-ordinates, equations of a line, mid point, intersections etc., equations of a circle, distance formulae, pair of straight lines, parabola, ellipse and hyperbola, simple geometric transformations such as translation, rotation, scaling.
- Trigonometry: Simple identities, trigonometric equations, properties of triangles, solution of triangles, height and distance, inverse function.
- Probability and Statistics: Basic concepts of probability theory. Averages, Dependent and independent events, frequency distributions, and measures of dispersion, skewness and kurtosis, random variable and distribution functions, mathematical expectations, Binomial, Poisson, normal distributions, curve fitting, and principle of least squares, correlation and regression.
- Arithmetic: Ratios and proportions, problems on time-work, distance-speed, percentage, etc.
- Basic Set Theory and Functions: Set, relations and mappings.
- Measurement: areas, triangles and quadrilaterals, area and circumference of circles, volumes and surface areas of simple solids such as cubes, spheres, cylinders and cones.

b) Logical / Abstract Reasoning: This shall include the questions to measure how quickly and logically you can think. This section will cover logical situations and questions based on the facts given in the passage. This test shall check the problem solving capability of the candidate.

c) English comprehension and verbal ability: Questions in this section will be designed to test the candidate's general understanding of the English language. There will be questions on the topics such as Basic English grammar, vocabulary, comprehension, synonyms, antonyms, sentence correction, word & phrases, jumbled paragraphs.

d) Computer Concepts

- Computer Basics: Organization of a computer, Central Processing Unit (CPU), Structure of instructions in CPU, input / output devices, computer memory, memory organization, back-up devices.
- Data Representation: Representation of characters, integers, and fractions, binary and hexadecimal representations, Binary Arithmetic: Addition, subtraction, division, multiplication, signed arithmetic and two's complement arithmetic, Floating point representation of numbers, normalized floating point representation, Boolean algebra, truth tables, Venn diagrams.
- Computer Architecture: Basics of Digital Logic, Block structure of computers, communication between processor and I/O devices, interrupts.
- Operating System basics

Marking Scheme and duration

<table>
<thead>
<tr>
<th>Section</th>
<th>No of Questions</th>
<th>Marks per Question</th>
<th>Maximum Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics &amp; Statistics</td>
<td>30</td>
<td>2</td>
<td>60</td>
</tr>
<tr>
<td>Logical / Abstract Reasoning</td>
<td>30</td>
<td>2</td>
<td>60</td>
</tr>
<tr>
<td>English comprehension and verbal ability</td>
<td>20</td>
<td>2</td>
<td>40</td>
</tr>
<tr>
<td>Computer Concepts</td>
<td>20</td>
<td>2</td>
<td>40</td>
</tr>
</tbody>
</table>

The test will comprise of multiple choice objective type questions (Four Options)

There is a negative marking system for this CET. Each correct answer will carry 2 marks. Each wrong answer will carry 0.5 negative marks. Unanswered questions will carry zero marks.

Test Duration 90 minutes

Medium of CET: English

Mode of Examination - Online
Annexure P

Syllabus and Marking Scheme for First Year of Engineering and Technology, Pharmacy and Pharm D degree course MHT-CET 2021

1. The questions will be based on Syllabus of Maharashtra State Board of Secondary and Higher Secondary Education.
2. Approximately 20% weightage will be given to Std. XI curriculum and 80% weightage will be given to Std. XII curriculum while setting the question paper,
3. There will be no Negative Marking, however difficulty level will be at par with the JEE (Main) for Mathematics, Physics, Chemistry and difficulty level for Biology will be at par with NEET. The questions will be mainly application based.
4. MHT-CET will consist of 3 question papers of Multiple Choice Questions (MCQ) and each paper will be of 100 marks. Details are as given below:

<table>
<thead>
<tr>
<th>Paper</th>
<th>Subject</th>
<th>Approximate No. of Multiple Choice Questions (MCQ) based on</th>
<th>Mark(s) Per Question</th>
<th>Total Marks</th>
<th>Duration in Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper I</td>
<td>Mathematics</td>
<td>10</td>
<td>Std. XI</td>
<td>40</td>
<td>Std. XII</td>
</tr>
<tr>
<td>Paper II</td>
<td>Physics</td>
<td>10</td>
<td>Std. XI</td>
<td>40</td>
<td>Std. XII</td>
</tr>
<tr>
<td>Paper III</td>
<td>Chemistry</td>
<td>10</td>
<td>Std. XI</td>
<td>40</td>
<td>Std. XII</td>
</tr>
<tr>
<td>Paper III</td>
<td>Biology</td>
<td>20</td>
<td>Std. XI</td>
<td>80</td>
<td>Std. XII</td>
</tr>
</tbody>
</table>

5. The question will be set on
   a) Whole syllabus of Std XII of 2020-21 of Physics, Chemistry, Biology and Mathematics subjects excluding portion which is deleted by Maharashtra Rajya Pathshala Nirmal va Abyakto Sanshadan Mandal Maharashtra, rashtrapati bhavan, wadala, mumbai (Maharashtra) for H.S.C. Examination due to covid19 pandemic situation.
   b) Syllabus of Std XI of 2019-20 as mentioned below:

<table>
<thead>
<tr>
<th>Sr.No.</th>
<th>Subject</th>
<th>Chapters/Units of Std XI Syllabus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Physics</td>
<td>Motion in a plane, Laws of Motion, Gravitation, Thermal properties of matter, Sound, Optics, Electrostatics, Semiconductors</td>
</tr>
<tr>
<td>2</td>
<td>Chemistry</td>
<td>Some Basic concepts of chemistry, Structure of atom, Chemical Bonding, Redox reactions, Elements of group 1 and 2, State of Matter (Gas and Liquid), Adsorption and colloids (Surface Chemistry), Hydrocarbons, Basic principles of organic chemistry</td>
</tr>
<tr>
<td>3</td>
<td>Mathematics</td>
<td>Trigonometry II, Straight Line, Circle, Measures of Dispersion, Probability, Complex Numbers, Permutations and Combinations, Functions, Limits, Continuity</td>
</tr>
<tr>
<td>4</td>
<td>Biology</td>
<td>Biomolecules, Respiration and Energy Transfer, Human Nutrition, Excretion and Osmoregulation</td>
</tr>
</tbody>
</table>
Annexure Q

Syllabus and Marking Scheme for MAH-B.Planning-CET 2022

The On Line test will have 100 questions based on Mathematics (Part-I), Aptitude Test (Part-II) and Planning Based Questions (Part-III) for 200 marks.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Paper</th>
<th>Topic</th>
<th>No. of Questions</th>
<th>Mark/s per Question</th>
<th>Total Marks</th>
<th>Duration (minutes)</th>
</tr>
</thead>
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Notes:
- The test will comprise of multiple choice objective type questions (Four Options)
- There is no negative marking System for this test.
- Test Duration: 120 minutes
- Medium of CET: English
- Mode of Examination – Online

9.1 SYLLABUS FOR MAH-B.Plan CET 2022 Part I

- MATHEMATICS

Unit-1: Sets, Relations and Functions:
Sets and their representation: Union, intersection and complement of sets and their algebraic properties; Power set; Relation, Type of relations, equivalence relations, functions; one-one, into and onto functions, the composition of functions.

Unit-2: Complex Numbers and Quadratic Equations:
Complex numbers as ordered pairs of reals, Representation of complex numbers in the form a + ib and their representation in a plane, Argand diagram, algebra of complex number, modulus and argument (or amplitude) of a complex number, triangle inequality, Quadratic equations in real and complex number system and their solutions, Relations between roots and co-efficient, nature of roots, the formation of quadratic equations with given roots.

Unit-3: Matrices and Determinants:
Matrices, algebra of matrices, type of matrices, determinants and matrices of order two and three, properties of determinants, evaluation of determinants, area of triangles using determinants, Adjoint and evaluation of inverse of a square matrix using determinants and elementary transformations, Test of consistency and solution of simultaneous linear equations in two or three variables using determinants and matrices.

Unit-4: Permutations and Combinations:
The fundamental principle of counting, permutation as an arrangement and combination as section, Meaning of P (n,r) and C (n,r), simple applications.

**Unit-5: Mathematical Inductions:**
Principle of Mathematical Induction and its simple applications

**Unit-6: Binomial Theorem and its Simple Applications:**
Binomial theorem for a positive integral index, general term and middle term, properties of Binomial coefficients and simple applications

**Unit-7: Sequence and Series:**
Arithmetic and Geometric progressions, insertion of arithmetic, geometric means between two given numbers, Relation between A.M and G.M sum up to n terms of special series; Sn, Sn2, Sn3. Arithmetico-Geometric progression.

**Unit-8: Limit, Continuity and Differentiability:**
Limits, continuity and differentiability. Differentiation of the sum, difference, product and quotient of two functions. Differentiation of trigonometric, inverse trigonometric, logarithmic, exponential, composite and implicit functions; derivatives of order up to two. Rolle’s and Lagrange’s Mean Value Theorems, Applications of derivatives: Rate of change of quantities, monotonic-Increasing and decreasing functions, Maxima and minima of functions of one variable, tangents and normal.

**Unit-9: Integral Calculus:**
Integral as an anti-derivative, Fundamental Integrals involving algebraic, trigonometric, exponential and logarithms functions. Integrations by substitution, by parts and by partial functions, Integration using trigonometric identities.
Evaluation of simple integrals of the type

\[
\int \frac{dx}{x^2+a^2}, \int \frac{dx}{\sqrt{x^2 \pm a^2}}, \int \frac{dx}{a^2-x^2}, \int \frac{dx}{\sqrt{a^2-x^2}}, \int \frac{dx}{ax^2+bx+c}, \int \frac{(px+q)dx}{ax^2+bx+c}, \int \frac{dx}{\sqrt{ax^2+bx+c}}, \int \frac{dx}{\sqrt{x^2-a^2}}.
\]

Integral as limit of a sum. The fundamental theorem of calculus, properties of definite integrals. Evaluation of definite integrals, determining areas of the regions bounded by simple curves in standard form.

**Unit-10: Differential Equations**
Ordinary differential equations, their order and degree, the formation of differential equations, solution of differential equation by the method of separation of variables, solution of a homogeneous and linear differential equation of the type.

\[
\frac{dy}{dx} + p(x)y = q(x)
\]

**Unit-11: Co-Ordinate Geometry**
Cartesian system of rectangular co-ordinates, 10 in a plane, distance formula, sections
formula, locus and its equation, translation of axis, slope of a line, parallel and perpendicular lines, intercept of a line on the co-ordinate axes.

Straight line - Various forms of equations of a line, intersection of lines, angles between two lines, conditions for concurrence of three lines, the distance of a point from a line, equations of internal and external by sectors of angles between two lines co-ordinate of the centroid, orthocentre and circumcentre of a triangle, equation of the family of lines passing through the point of intersection of two lines.

Circle, conic sections - A standard form of equations of a circle, the general form of the equation of a circle, its radius and central, equation of a circle when the endpoints of a diameter are given, points of intersection of a line and a circle with the centre at the origin and condition for a line to be tangent to a circle, equation of the tangent, sections of conics, equations of conic sections (parabola, ellipse and hyperbola) in standard forms, condition for \( Y = mx + c \) to be a tangent and point (s) of tangency.

Unit-12: Three Dimensional Geometry

Coordinates of a point in space, the distance between two points, section formula, directions ratios and direction cosines, the angle between two intersecting lines. Skew lines, the shortest distance between them and its equation. Equations of a line and a plane in different forms, the intersection of a line and a plane, coplanar lines.

Unit-13: Vector Algebra

Vectors and scalars, the addition of vectors, components of a vector in two dimensions and three-dimensional space, scalar and vector products, scalar and vector triple product.

Unit-14: Statistics and Probability

Measures of discretion; calculation of mean, median, mode of grouped and ungrouped data calculation of standard deviation, variance and mean deviation for grouped and ungrouped data.

Probability: Probability of an event, addition and multiplication theorems of probability, Baye's theorem, probability distribution of a random variate, Bernoulli trials and binomial distribution.

Unit-15: Trigonometry

Trigonometrical identities and equations, trigonometrical functions, inverse trigonometrical functions and their properties, heights and distance.

Unit-16: Mathematical Reasoning

Statement logical operations and, or, implies, implied by, if and only if, understanding of tautology, contradiction, converse and contrapositive.

Part II - APTITUDE

Unit-1

Unit- 2: Three Dimensional- Perception:
Understanding and appreciation of scale and proportions of objects, building forms and elements, colour texture harmony and contrast. Design and drawing of geometrical or abstract shapes and patterns in pencil.
Transformation of forms both 2D and 3D union, subtraction, rotation, development of surfaces and volumes. Generation of Plan, elevations and 3D views of objects. Creating two-dimensional and three-dimensional compositions using given shapes and forms.

Part III – PLANNING

Unit-1: General Awareness
General knowledge questions and knowledge about prominent cities, development issues, government programmes etc.

Unit-2: Social Sciences
The idea of nationalism, nationalism in India, pre-modern world, 19th-century global economy, colonialism and colonial cities, industrialisation, resources and development, types of resources, agriculture, water, mineral resources, industries, national economy; Human Settlements.
Power-sharing, federalism, political parties, democracy, the constitution of India. Economic development- economic sectors, globalisation, the concept of development, poverty; Population structure, social exclusion and inequality, urbanisation, rural development, colonial cities.

Unit-3: Thinking Skills
Comprehension (unseen passage); map reading skills, scale, distance, direction, area etc.; critical reasoning; understanding of charts, graphs and tables; basic concepts of statistics and quantitative reasoning.
Annexure R

Syllabus and Marking Scheme for MAH-B.Design CET 2022

Syllabus and Marking Scheme for Bachelor of Design
MAH-B Design CET 2023

Contents:
MAH - B Design CET is the test devised to check the inclination and aptitude of the students for their keen observations, analytical ability, creative thinking ability, visualization & hand skills. Designers being interested in various aspect of life should be aware of the things happening around them in various spheres like nature-humanity-technology development. Looking at the things without biases, questioning the status quo, enables designers to think in a different way and bring new perspective towards the solution.

Entrance examination paper will have questions broadly but not limited to the topics mentioned in the two tables below.
The test is divided into 2 main parts with total duration of 3 hours:
1. PART A is MCQ based questions, for duration of 90 minutes.
2. PART B is sketching skill based & problem-solving ability, for duration of 90 minutes.

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<tr>
<th>PART A (Duration: 90 mins)</th>
<th>Question types</th>
<th>No. of Questions</th>
<th>Marks/Question</th>
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<td>1 General knowledge/awareness: General knowledge and current affairs</td>
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<td>2 Art &amp; Design fundamentals: Elements and principles of design, aesthetic sensitivity, colour theory. Basic art history. Indian culture, other prominent cultures, Important crafts.</td>
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<td>3 Science - technology related knowledge: Basics of physics, geometry. Mathematics. Knowledge of practical and everyday mechanical and scientific concepts. knowledge of materials.</td>
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<td>4 Analytical and logical reasoning: Ability to look at information, recognize patterns and analyse given data. Sequences or relationships between shapes and imaginations.</td>
<td>MCQs</td>
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<td>1 Visualization and Illustration ability (30 mins): Sketching/illustrating situation, context, event, people with attention to details. With right proportions, good line quality, composition, perspective, and shading.</td>
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<td>2 Design thinking and problem solving (60 mins): Understanding complex situations, going to root cause, and identifying problems, generate alternative ideas/solutions, evaluating options and developing final solutions.</td>
<td>Sketching</td>
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* The PART A - Duration: 90 minutes - test will comprise of multiple-choice objective type questions, Numerical answer type questions.
* The PART B - Duration: 90 minutes - test will comprise of sketching, illustration. Product idea using pencils, colour pencils, markers, sketch pens, pens, & any other suitable colouring mediums.
* There is no negative marking System for this test.
* Medium of CET: English
* Mode of Examination - offline (at selected centers)
# 14 Annexure 5:
Statistics of Centers used for MHT CET-2022

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16 Annexure 7: Service Level Agreement

16.1 Definitions

The purpose of this Service Level Requirements/Agreement (hereinafter referred to as SLR/SLA) is to clearly define the levels of service which shall be provided by the Service Provider to the CET CELL for the duration of this contract period of the Project.

Timelines specified in the RFP shall form the Service Levels for delivery of Services specified there-in.

All the payments to the Service Provider are linked to the compliance with the SLA metrics specified hereunder.

The project Service Level Agreement are proposed to be performance based. For purposes of Service Level Agreement, the definitions and terms as specified along with the following terms shall have the meanings set forth below:

1. “Uptime” shall mean the time period for which the specified services / components with specified technical and service standards are available for the application. Uptime, in percentage, of any component (Non-IT and IT) can be calculated as:
   \[ \text{Uptime} = \left(1 - \frac{([\text{System Downtime}])}{(\text{Total Time} - \text{Planned Maintenance Time})}\right) \times 100 \]

2. “Downtime” shall mean the time period for which the specified services / components with specified technical and service standards are not available for the Users, the scheduled outages / Planned Maintenance time planned in advance for application, related infrastructure and link failures. This includes Servers, Routers, Firewall, Switches, all servers and any other IT and non-IT infrastructure, their subcomponents etc. at all Project locations etc. The planned maintenance time / scheduled downtime will include activities like software upgrades, patch management, security software installations etc.

3. The selected SI will be required to schedule ‘planned maintenance time’ with prior approval of CET CELL. This will be planned outside working time. In exceptional circumstances, CET CELL may allow the SI to plan scheduled downtime in the working hours.

4. “Incident” refers to any event / abnormalities in the functioning of the application, Infrastructure and services that may lead to disruption in normal operations.

5. “Response Time” shall mean the time incident is reported to the help desk and an engineer is assigned for the call.

6. “Resolution Time” shall mean the time taken (after the incident has been reported at the helpdesk), in resolving (diagnosing, troubleshooting and fixing) or escalating (to the second level) getting the confirmatory details about the same from the SI and conveying the same to the end user), the services related troubles during the first level escalation.

- The resolution time shall vary based on the severity of the incident reported at the help desk. The severity would be as follows:
  1. Critical / High: The application is down impacting critical business functions or multiple modules/functions down impacting users on daily operations or any module /functionality deemed as highly critical by CET CELL.
  2. Medium: One module/functionality down impacting critical business functions having major impact on daily operations.
  3. Low: Loss of business functionality for less than 10 users impacting day to day operations or minor functionality down impacting less than 10 users.
Commencement of SLA: The SLA shall commence from implementation period itself for adherence to the implementation plan. The penalty will be deducted from the next payment milestone during the implementation period. During the Operations & Maintenance period, the penalty will be deducted from the quarterly payments.

### A) Procurement of Services for and Support

<table>
<thead>
<tr>
<th>#</th>
<th>Milestone</th>
<th>Metric</th>
<th>Penalty in case of delay</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Submission of detailed Project Management Plan, Exit Management Plan along with establishment of live project management dashboard</td>
<td>The delay for each milestone as per the planned schedule should not exceed more than three days without a justified reason agreed and approved by CET CELL. Thereafter for each week of delay, penalty will be levied.</td>
<td>Rs. 50,000 per week up to maximum Rs. 2,00,000 post which CET CELL may invoke annulment of the contract</td>
</tr>
<tr>
<td>2</td>
<td>System Requirement Specifications (‘SRS’), Information Security Policies &amp; Procedures</td>
<td></td>
<td>Rs. 50,000 per week up to maximum Rs. 2,00,000 post which CET CELL may invoke annulment of the contract</td>
</tr>
<tr>
<td>3</td>
<td>Development of the system/Customization of existing system of SI</td>
<td></td>
<td>Rs. 50,000 per week up to maximum Rs. 2,00,000 post which CET CELL may invoke annulment of the contract</td>
</tr>
<tr>
<td>4</td>
<td>Hosting of application, User Acceptance Testing, Security Audit, Operationalization of system, setting up and Go Live Call Center</td>
<td></td>
<td>Rs. 50,000 per week up to maximum Rs. 2,00,000 post which CET CELL may invoke annulment of the contract</td>
</tr>
</tbody>
</table>

### B) Conduction of Examination

<table>
<thead>
<tr>
<th>#</th>
<th>Parameter</th>
<th>Target</th>
<th>Basis</th>
<th>Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>In case of cancellation of Examination due to technical failure, Network failure, Server failure etc.</td>
<td>All examinations, centers, sessions</td>
<td>Per incidence</td>
<td>Rs. 400 per candidate per Session (excluding GST)</td>
</tr>
</tbody>
</table>

### C) Periodic Security Audit

<table>
<thead>
<tr>
<th>#</th>
<th>Parameter</th>
<th>Target</th>
<th>Basis</th>
<th>Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Periodic Security Audit (every 6 months) for the entire application and the action taken report by the Service Provider</td>
<td>Once every semester (post before Go-Live)</td>
<td>Per occurrence</td>
<td>Rs. 50,000 per week up to maximum Rs. 2,00,000 post which CET CELL may invoke annulment of the contract</td>
</tr>
</tbody>
</table>

### D) Change Request

<table>
<thead>
<tr>
<th>#</th>
<th>Parameter</th>
<th>Metric</th>
<th>Basis</th>
<th>Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Criticality of Change – <strong>Low</strong></td>
<td>&lt; T+1 week, where T is the timeframe for completion of the Change request as agreed upon by CET CELL and the Service Provider</td>
<td>Weekly per Occurrence</td>
<td>Rs. 50000 value per week for the first two weeks for each occurrence, Rs. 50000 per week for every</td>
</tr>
</tbody>
</table>

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2. Criticality of Change – **Medium**<ref>T+1 week, where T is the timeframe for completion of the Change request as agreed upon by CET CELL and the Service Provider</ref>  
**Weekly per Occurrence**  
Rs. 75000 per week for the first two weeks, thereafter Rs. 75000 per week for every subsequent week

3. Criticality of Change – **High**<ref>T, where T is the timeframe for completion of the Change request as agreed upon by CET CELL and the Service Provider</ref>  
**Weekly per Occurrence**  
Rs. 100000 per week for the first two weeks, thereafter Rs. 100000 per week for every subsequent week

### E) Performance of System

<table>
<thead>
<tr>
<th>#</th>
<th>Measurement</th>
<th>Definition</th>
<th>Penalty Calculation Interval</th>
<th>Target</th>
<th>Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Average time taken for opening Internet portal (Home page) from remote site at 1 Mbps connectivity</td>
<td>Script based checking facilitated by system integrator. Every 10 minutes daily (8am to 8 pm)</td>
<td>Quarterly</td>
<td>&lt;=10 seconds</td>
<td>No Penalty</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>&gt;10 seconds</td>
<td>INR 50000/- per instance of default</td>
</tr>
<tr>
<td>2</td>
<td>Average time for submission of forms / data by CET CELL Average size 1 MB connectivity</td>
<td>Random check (100 instances per quarter) would be conducted for determining average time</td>
<td>Quarterly</td>
<td>&lt;= 5 seconds</td>
<td>No Penalty</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>&gt; 5 seconds</td>
<td>INR 50000/- per instance of default</td>
</tr>
<tr>
<td>3</td>
<td>Average time for submission of forms / data by institute staff / Candidates (Time between pressing the 'submit' button and generation of acknowledgement of successful or unsuccessful submission from the system)</td>
<td>Random check (100 instances per quarter) would be conducted, during peak hours, for determining average time.</td>
<td>Quarterly</td>
<td>&lt; 1 minute</td>
<td>No Penalty</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>&gt; 1 minute</td>
<td>INR 50000/- per instance of default</td>
</tr>
</tbody>
</table>
### Availability of all online applications and portal (Primary / DR as the case may be)

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Measurement</th>
<th>Definition</th>
<th>Penalty Calculation Interval</th>
<th>Target</th>
<th>Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Availability</td>
<td>Script based checking facilitated by system integrator. Every 10 minutes daily (8am to 8 pm) Non-availability of even one of the agreed services would amount to deviation for this purpose</td>
<td>Quarterly</td>
<td>$\geq 99.75%$</td>
<td>No penalty</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$\geq 99.74%$ to $&lt; 99.75%$</td>
<td>INR 50,000/-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$\geq 99.72%$ to $&lt; 99.74%$</td>
<td>INR 1,00,000/-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$\geq 99.70%$ to $&lt; 99.72%$</td>
<td>INR 1,50,000/-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$&lt; 99.70%$</td>
<td>Event of Default &amp; Escalation to CET CELL and Bidder's Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Continuous downtime for more than 30 minutes</td>
<td>INR 2,00,000/- per instance</td>
</tr>
</tbody>
</table>

### Concurrent connects to the Web services

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Measurement</th>
<th>Definition</th>
<th>Penalty Calculation Interval</th>
<th>Target</th>
<th>Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Concurrent connects to the Web services</td>
<td>Simulated the stated loads and testing the system performance using load-testing tools.</td>
<td>Weekly</td>
<td>$&lt; 2,500$ Concurrent Users per minute</td>
<td>INR 1,00,000/-</td>
</tr>
</tbody>
</table>

### F) Quality of Services

#### Sr. No 1

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Definition</th>
<th>Penalty Calculation Interval</th>
<th>Target</th>
<th>Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scheduled Maintenance</td>
<td>The SI shall provide a detailed application maintenance plan on the commencement of the project.</td>
<td>Quarterly</td>
<td>$100%$ of scheduled maintenance should be carried out as per maintenance plan submitted by the SI. Any scheduled maintenance needs to be planned and intimated CET CELL at least 2 working days in advance.</td>
<td>INR 50,000 (for every non-compliance)</td>
</tr>
</tbody>
</table>

### G) Technical Support Services

#### Sr. No 1

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Definition</th>
<th>Penalty Calculation Interval</th>
<th>Service Level Target</th>
<th>Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Response Time&quot;, means time taken (after the</td>
<td></td>
<td></td>
<td>At least $99%$ of the calls within 60 minutes</td>
<td>No penalty</td>
</tr>
<tr>
<td></td>
<td>Response time (Only for problem request/ defect fixes)</td>
<td>Quarterly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------------------</td>
<td>-----------</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
|   | request has been logged at the helpdesk and escalated to SI team) by the respective SI staff in responding to the call and updating the status of the call in the Help Desk system. The response time would include:  
  • Call diagnosis  
  • Categorization into problem request/change requests for defect fixes  
  • Assign severity levels to PRs  
  • Tentative timelines for further action. | $\geq 97\%$ to $< 99\%$ of the calls within 60 minutes | INR 25,000/- |
|   |                                                  | $\geq 95\%$ to $< 97\%$ calls within 60 minutes | INR 50,000/- |
|   |                                                  | $\geq 90\%$ to $< 95\%$ calls within 60 minutes | INR 75,000/- |
|   |                                                  | $< 90\%$ calls within 60 minutes | INR 1,00,000/- |

<table>
<thead>
<tr>
<th>2</th>
<th>Resolution Time</th>
<th>Quarterly average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“Resolution Time”, means time taken by the SI staff to troubleshoot and fix the problem/defect from the time the call has been escalated to the SI team till the delivery of the solution to CET CELL for UAT and subsequently updates the status of the call in the Help Desk system.</td>
<td>At least 99% calls to be resolved within 2 working days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$\geq 97%$ to $&lt; 99%$ calls to be resolved within 2 working days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$\geq 95%$ to $&lt; 97%$ calls to be resolved within 2 working days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$&lt; 95%$ calls to be resolved within 2 working days</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Any 3 consecutive months of any of the above default will lead to termination of contract</td>
</tr>
</tbody>
</table>

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### H) Helpdesk

<table>
<thead>
<tr>
<th>Sr No</th>
<th>Measurement</th>
<th>Definition</th>
<th>Penalty Calculation Interval</th>
<th>Service level target</th>
<th>Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Availability of call lines / ticketing system at Help Desk Locations</td>
<td>Uptime = {1-[(Call line / Ticketing System downtime) / (Total Time)]} Total Time shall be measured on 8*6 basis Downtime shall be measured from the time the call line/ ticketing system at a help desk becomes unavailable to the respective users to the time it becomes available</td>
<td>Monthly</td>
<td>Minimum 95% up time measured on a Quarterly basis per toll-free line 100% of the toll-free lines should meet the above Target</td>
<td>INR 10,000/-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Minimum 95 % uptime measured on a Quarterly basis per toll-free line &gt;= 99.0% to &lt;100% of the toll-free lines meeting the above target</td>
<td>INR 25,000/-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Minimum 95 % uptime measured on a Quarterly basis per toll-free line &gt;= 97.0% to &lt; 99 % of the toll-free lines meeting the above target</td>
<td>INR 50,000/-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Minimum 95 % uptime measured on a Quarterly basis toll-free line &gt;= 95.0% to &lt;97 % of the toll-free lines meeting the above target</td>
<td>INR 75,000/-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Minimum 95 % uptime measured on a Quarterly basis toll-free line &lt; 95 % of the toll-free lines meeting the above target</td>
<td>INR 1,00,000/-</td>
</tr>
</tbody>
</table>

### I) Compliance Procedures

<table>
<thead>
<tr>
<th>Sr No</th>
<th>Measurement</th>
<th>Definition</th>
<th>Penalty Calculation Interval</th>
<th>Target</th>
<th>Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td>Any failure/incident on any part of the solution shall be reported to CET CELL within 1 hour with the cause and action for the incident.</td>
<td>Daily</td>
<td>100% incidents to be reported to CET CELL within 1 hour with the cause and action for the incident.</td>
<td>No Penalty</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Delay beyond an hour</td>
<td>INR 10,000/- for every hour of delay</td>
</tr>
</tbody>
</table>

INR = Indian Rupee
<table>
<thead>
<tr>
<th></th>
<th>Incident Reporting</th>
<th>Communicated immediately to CET CELL as an exceptional report giving details of impact, if any.</th>
<th>100% incident log to be submitted to CET CELL that comprises exceptional &amp; normal reportable activities by 5th of every Quarter for the previous quarter.</th>
<th>No Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Daily</td>
<td>Daily</td>
<td>Delay beyond the date of submission</td>
<td>INR 25,000/- for every day of delay</td>
</tr>
<tr>
<td>1</td>
<td>Incidental Log</td>
<td>100% incidents to be reported to CET CELL within 1 hour with the cause and action for the incident.</td>
<td>Daily</td>
<td>INR 10,000/-</td>
</tr>
<tr>
<td></td>
<td>Delay beyond an hour</td>
<td>100% incident Log to be submitted to CET CELL that comprises exceptional &amp; normal reportable activities by 5th of every Quarter for the previous quarter.</td>
<td>Delay beyond the date of submission</td>
<td>INR 25,000/- for every hour of delay</td>
</tr>
<tr>
<td></td>
<td>Implementation of Audit Recommendations</td>
<td>Implementation of audit recommendations by CET CELL or its auditor which have been agreed by Bidder &amp; CET CELL to be implemented.</td>
<td>100% on time to be implemented as per timelines agreed upon with CET CELL</td>
<td>INR 2,50,000/- for each instance of breach</td>
</tr>
<tr>
<td>3</td>
<td>Adherence to Backup Policy</td>
<td>The SI shall adhere to the Backup Policy developed in consultation with CET CELL</td>
<td>100% adherence to Backup policy</td>
<td>INR 2,50,000/- for each instance of breach</td>
</tr>
<tr>
<td>Sr. No.</td>
<td>Service Levels</td>
<td>Penalty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Critical activities in the admission process such as:</td>
<td>A penalty of INR 50,000 for every day of delay shall be imposed</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>i. Seat Distribution</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ii. Allocation of Rankings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>iii. Preference filling activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>iv. College / Course allocation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>v. Update of admissions by colleges, etc. Should happen as per the admission calendar published by the Concerned User Department.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Successful bidder shall resolve the issue raised by Department, colleges or candidate within one working day, provided the issue is not a showstopper. Show-stopper issues shall be resolved within two hours from raising the request. Show-stopper issues are the ones due to which the application becomes inaccessible.</td>
<td>A penalty of INR 5,000 for every day of delay shall be imposed. For showstopper: A penalty of INR 10,000 for every hour of delay shall be imposed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Successful bidder shall develop the rule engine as per the procedure or GR declared by the Department so as to have 100% accuracy in allotment of colleges to candidates.</td>
<td>A penalty of Rs. 10,000 per candidate who doesn’t get allotted to a college as per merit, rank, reservation, category, sports or women reservation etc.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Maximum Penalty:**

Maximum Penalty will be limited to the cost of breakups in the reference tables, subject to overall implementation schedule is not delayed beyond timelines committed by the bidder. The sum total of all the penalties can be up to 10% of the total contract cost, post which CET CELL may invoke annulment of the contract. Calendar Days and Working Hours:

1. For Application Maintenance & Support, Calendar days should be read as CET CELL Business days.
2. For Application Maintenance & Support, Working Hours should be read as CET CELL Working Hours
3. The down time will be calculated on monthly basis. Non-adherence to any of the services as mentioned below will lead to penalty as per the SLA clause and will be used to calculate downtime. The downtime calculated shall not include the following
   a. Down time due to hardware/software and application which is owned by CET CELL at their premises
   b. Negligence or other conduct of CET CELL or its agents, including a failure or malfunction resulting from applications or services provided by CET CELL or its vendors.
   c. Failure or malfunction of any equipment or services not provided by the Bidder.
4. However, it is the responsibility/onus of the selected Bidder to prove that the outage is attributable to CET CELL. The selected Bidder shall obtain the proof authenticated by the CET CELL’s official that the outage is attributable to the CET CELL. The Agency shall deploy sufficient manpower suitably qualified and experienced in shifts to meet the SLA. Agency shall appoint as many team members as deemed fit by them, to meet the time Schedule and SLA requirements.

16.2 Issue Management Procedures

a) General
i. Issue Management process provides for an appropriate management structure towards orderly consideration and resolution of business and operational issues in the event of a quick consensus not reached between CET CELL and Bidder.
ii. Implementing such a process at the commencement of services shall significantly improve the
probability of successful issue resolution. It is expected that this predefined process will only be used on an exception basis if issues are not resolved at operational levels.

b) Issue Management Procedures

i. Either CET CELL or Bidder may raise an issue by documenting the business or technical problem, which presents a reasonably objective summary of both points of view and identifies specific points of disagreement with possible solutions.

ii. The CET CELL and the Bidder will determine which committee or executive level should logically be involved in resolution.

iii. A meeting or conference call will be conducted to resolve the issue in a timely manner. The documented issues will be distributed to the participants at least 24 hours prior to the discussion if the issue is not an emergency requiring immediate attention.

iv. CET CELL and the Bidder shall develop an interim solution, if required, and subsequently the permanent solution for the problem at hand. The Bidder will then communicate the resolution to all interested parties.

v. In case the issue is still unresolved, the arbitration procedures described in the contract will be applicable.
17 Annexure 8: Understanding of Scope

The scope and timeline mentioned herein are indicative for the understanding of the bidders. The same may change for the upcoming Centralized Admission Process for all the courses referred under this section. The bidder is expected to make suitable arrangements and customizations to the application as and when required by the respective department. The indicative scope of one department is given below.

There could be a slight variation in the timeline as per department and course.

17.1 Tentative Activity Schedule & CAP Process for Technical Department

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Activity</th>
<th>Expected No of Days</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Online registration of application and uploading of required documents by the Candidate for admission on website (For Maharashtra State/All India/ Union Territory of Jammu and Kashmir and Union Territory of Ladakh Migrant candidates &amp; NRI/OCI/PIO/CIWGC/FN candidates)</td>
<td>Day 1 to Day 10</td>
<td>1. Before start of application CET Cell &amp; Vendor. Once application starts - Vendor 2. Regional office monitoring facilitation Center/ Scrutiny Center activity</td>
</tr>
<tr>
<td>Note:- Candidates opting for Maharashtra plus AI Candidature as well as NRI/PIO/OCI/CIWGC, shall apply separately for each type.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Documents verification and confirmation of Application Form for Admission by online mode.</td>
<td>Day 1 to Day 11</td>
<td>1. Vendor 2. Regional office monitoring for facilitation Center/Scrutiny Center activity</td>
</tr>
<tr>
<td>a)</td>
<td>By Maharashtra State/All India Candidates shall fill online application form and upload the required documents from any computer connected to internet from anywhere. Note: Candidate need not have to visit to E-Scrutiny Center for verification and confirmation of the application form. His/her application &amp; documents shall be verified and confirmed by the E-Scrutiny Center through online mode only. During E-Scrutiny of Application Form, candidate should do: • If no error is found: the status of verification &amp; confirmation of the application form shall be available in candidates Login along with receipt cum Acknowledgement. • If error is found: the details of errors shall be intimated to candidates by reverting back his/her Application for its rectification through candidates Login. • Candidate shall edit the reverted Application and re-submit the application for e-Scrutiny/ Physical through his/her login.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td>Union Territory of Jammu and Kashmir and Union Territory of Ladakh Migrant/NRI/PIO/OCI/CIWGC/FN candidates should send the print of online filled &amp; submitted application form &amp; copy of uploaded documents by hand/speed post/courier for verification &amp; confirmation to “Director, Sardar Patel College of Engineering (SPCE), Versova Road, Munshi Nagar, Andheri (West), Mumbai- 400058”.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sr. No.</td>
<td>Activity</td>
<td>No of days</td>
<td>Responsibility</td>
</tr>
<tr>
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</tr>
<tr>
<td>3.</td>
<td>Display of the provisional merit list for Maharashtra State/All India/ Union Territory of Jammu and Kashmir and Union Territory of Ladakh Migrant candidates on website.</td>
<td>Day 14</td>
<td>Vendor Display after approval by CET CELI.</td>
</tr>
</tbody>
</table>
| 4.      | Submission of grievances if any, for all type of Candidates:  
  • Candidate shall raise the Grievance about correction required in the data displayed in provisional merit list through his/her Login.  
  • The application of such candidates shall be reverted back to the candidate in his/her Login for rectification.  
  • Candidate shall upload the requisite documents to substantiate the claim for any correction/concession.  
  • The status of acceptance/rejection of Grievance raised by candidate shall be available in candidates Login along with latest receipt cum Acknowledgement. | Day 15 to Day 16 | 1. Candidate Facilitation Center/Scrutiny Center activity |
| 5.      | Display of the Final Merit lists of Maharashtra State/All India/ Union Territory of Jammu and Kashmir and Union Territory of Ladakh Migrant candidates on website. | Day 19 | Vendor Display after approval by CET CELI. |
| 6.      | Display of Provisional Category wise Seats (Seat Matrix) for CAP Round I | Day 19 | Vendor Display after approval by CET CELI. |
|         | **CAP Round I** |            |                |
| 7.      | Online Submission & Confirmation of Option Form of CAP Round-I through candidate’s Login by the Candidate. | Day 20 to Day 22 | Vendor |
| 8.      | Display of Provisional Allotment of CAP Round-I | Day 25 | Vendor Display after approval by CET CELI. |
| 9.      | Accepting to the offered seat by candidate through his/her login as per Allotment of CAP Round I.  
  a) The candidate shall self-verify the seat allotment made to him/her in the CAP Round I by accepting declaration through his/her login and certifying that his/her claim related with qualifying marks, category, gender, reservation, specific reservation etc. made by candidate in the application form are correct and relevant documents uploaded to substantiate his/her claims are authentic and correct. | Day 26 to Day 28 | Vendor & Institute |
<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Activity</th>
<th>No of days</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>b)</td>
<td>If candidate found the claim made by him is not correct and he/she wants to correct the error, (error as per the clause (e) of sub rule (4) of rule 9 given in information brochure) The candidate shall report the grievance through his/her login by online mode only.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c)</td>
<td>Candidates who have been allotted the seat as per their first preference in Round I (auto freeze) shall pay the seat acceptance fee by online mode through their login and Such candidates shall not be eligible for participation in subsequent Rounds.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d)</td>
<td>Candidates who have allotted other than the first preference and self freeze their allotment in Round I through their login must accept the seat and shall pay seat acceptance fees through online mode. Such candidates shall not be eligible for participation in subsequent Rounds. [Candidate must exercise this option carefully]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e)</td>
<td>Candidates who have allotted other than the first preference and want betterment in the subsequent rounds must claim the allotted seat in Round I by accepting that seat by choosing Not Freeze option for betterment and shall pay the seat acceptance fee through their login by online mode.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Reporting to the Allotted Institute and Confirmation of Admission by submitting required documents and payment of fee after CAP Round I.</td>
<td>Day 26 to Day 28</td>
<td>Vendor &amp; Institute</td>
</tr>
<tr>
<td>Note:</td>
<td>a) Candidates who have accepted the seat as per 9 (c), 9 (d) above must report to allotted institute for confirmation of admission</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b)</td>
<td>The Institute shall verify the required documents and upload the admission of the candidates in the online system through Institute Login immediately and shall issue a system generated receipt of confirmation of admission and fee paid receipt to the candidate. If it is found that seat allotted to the candidate is on the false claims made in the applications by the candidate, then institute shall not admit such a candidate and such candidate shall raise the grievance by his/her login.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CAP Round II**

| 11.    | Display of Provisional Vacant Seats for CAP Round-II | Day 29 | Vendor & Institutes                |
| 12.    | Online Submission & Confirmation of Option Form of CAP Round-II through candidate’s Login by the Candidate. | Day 30 to Day 32 | Vendor |
14. Accepting to the offered seat by candidate through his/her login as per Allotment of CAP Round II. 
   Note: - All eligible candidates participated in Round II and allotted the seat first time shall self-verify the seat allotment as per 9(a) above. The candidate who have been allotted the seat first time in Round II shall pay the seat acceptance fee through his/her login by online mode.
   Responsibility: Vendor & Institute
   Day 35 to Day 37

15. Reporting to the Allotted Institute and Confirmation of Admission by submitting required documents and payment of fee after CAP Round II. 
   Note: Participating candidates to whom the first time allotment is made or got betterment in allotment or No betterment (Earlier seat retained) In Round II shall be final. Such a candidate must report to allotted institute for confirmation of admission.
   Responsibility: Vendor & Institute
   Day 35 to Day 37

16. (For Government/ Govt. Aided/ Unaided Institutes) For Vacant seats if any at institute the respective institute will complete the admission activity in the following manner -
   - Display of vacant seats on institute website and giving appropriate advertisement in the News Paper.
   - Invite applications from registered candidates.
   - Prepare and display Merit List on college website and Institute Notice Board.
   - Carry out/ Complete Admission Process by following Government Admission Rules
   Responsibility: Vendor & Institute
   Day 38 to Day 45

17. Commencement of academic activities for All institutes
   Responsibility: Institute
   Day 46

18. Cut-off Date for all type of admissions for the Academic Year 2020-21
   Responsibility: Vendor & Institute
   Day 45

19. For Institutes: Last date of uploading the data (details of admitted candidates)
   Responsibility: Vendor & Institute
   Day 47

Union Territory of Jammu and Kashmir and Union Territory of Ladakh Migrant Candidates:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Activity</th>
<th>Schedule First Date</th>
<th>Last Date</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Counselling Round at “Director, Sardar Patel College of Engineering (SPCE), Versova Road, Munshi Nagar, Andheri (West), Mumbai- 400058”</td>
<td>Any 3 Days After CAP I</td>
<td>Vendor &amp; Institute</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Reporting to the Allotted Institute and Confirmation of Admission by submitting required documents and fees, as per Final Allotment.</td>
<td>Any 3 Days After CAP I</td>
<td>Vendor &amp; Institute</td>
<td></td>
</tr>
</tbody>
</table>

The Detailed Activities

<table>
<thead>
<tr>
<th>Sr.No.</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Institute /College Registration ( CET Cell, RO, Vendor )</td>
</tr>
<tr>
<td></td>
<td>a) Registration of College/Institute</td>
</tr>
<tr>
<td></td>
<td>b) Facility to Capture Information in classified manner, Facility to Upload/add/edit documents/Information including Institute Registration (Self Module), Institute Profile Information,</td>
</tr>
<tr>
<td>Sr.No.</td>
<td>Activities</td>
</tr>
<tr>
<td>-------</td>
<td>------------</td>
</tr>
<tr>
<td></td>
<td>c) Directorate Registration &amp; facility to provide login to Directorate as per requirement. Facility to ADD/Remove/Edit/Upload</td>
</tr>
<tr>
<td></td>
<td>d) Workflow for Approval/reject/send back/re-approval of submission cases of Institute/college</td>
</tr>
<tr>
<td></td>
<td>e) Facility of Approval due to Court Cases, additional sanction division orders &amp; revised intake/ change of Status of Institute</td>
</tr>
<tr>
<td></td>
<td>f) Payment gate way Integration in software for collection as decided by CET CELL</td>
</tr>
<tr>
<td></td>
<td>g) Preparation of Master Database of the Registered Institute and Facility of comparing the Master Data with the new Data in the Next Academic Year.</td>
</tr>
<tr>
<td></td>
<td>h) SMS sending &amp; Email reply Facility</td>
</tr>
<tr>
<td></td>
<td>i) Generation of required Reports/ Dashboard Real Time Updating.</td>
</tr>
<tr>
<td></td>
<td>j) Online Support to Directorate/CET CELL and Registered Institutes / help desk</td>
</tr>
<tr>
<td></td>
<td>k) CALL centre facility</td>
</tr>
<tr>
<td></td>
<td><strong>Candidates Registration (vendor)</strong></td>
</tr>
<tr>
<td></td>
<td>a) Customization of Online Application System</td>
</tr>
<tr>
<td></td>
<td>b) Validation of Mobile number and email id in Application form</td>
</tr>
<tr>
<td></td>
<td>c) Sharing of CET’s data and fetching it in the CAP Application form as per requirement and for required fields.</td>
</tr>
<tr>
<td></td>
<td>d) Display of CET Result on the CAP Portal, Analysis of the CET Result,</td>
</tr>
<tr>
<td></td>
<td>e) Sharing the CET’s score card/Fetching of NEET/JEE/NATA/AIAPGET data etc.</td>
</tr>
<tr>
<td></td>
<td>f) HSC Board marks (PCB) may be fetched from Board by API /CD Format</td>
</tr>
<tr>
<td></td>
<td>g) Aligning CET’s application form data (editable in case of mistakes committed by candidates in the CET application form, facility to keep track of changes)</td>
</tr>
<tr>
<td></td>
<td>h) Candidate profile/Academic details/Candidature type/category type</td>
</tr>
<tr>
<td></td>
<td>i) Course eligibility</td>
</tr>
<tr>
<td></td>
<td>j) Uploading of the documents category wise as prescribed in respective information brochure in .pdf format only.</td>
</tr>
<tr>
<td></td>
<td>k) Payment gate way Integration in software with the gateway as decided by CET CELL</td>
</tr>
<tr>
<td></td>
<td>l) Payment of application fees in case of NRI/OCI/PIO/FNS candidates as per information brochure</td>
</tr>
<tr>
<td></td>
<td>m) Category change/Downloading CET Application Form/ Provisional Allotment Letter</td>
</tr>
<tr>
<td>2</td>
<td>n) SMS sending &amp; Email reply Facility after registration process</td>
</tr>
<tr>
<td></td>
<td>o) Generation of required Reports/Dashboard</td>
</tr>
<tr>
<td></td>
<td>p) Online support / help desk</td>
</tr>
<tr>
<td></td>
<td>q) CALL centre facility with daily report of cases received and resolved.</td>
</tr>
<tr>
<td></td>
<td><strong>Online/offline document verification &amp; Raising/Handling grievances (vender and FC-ARC)</strong></td>
</tr>
<tr>
<td></td>
<td>a) FC-ARC or E-Verification module (E-Verification at Govt. and Govt.- aided &amp; Unaided Colleges)</td>
</tr>
<tr>
<td></td>
<td>b) FC-ARC/Institute registration, online Document Checking and viewing facility to the FC-ARC representative, facility to record comments for each checked document. Facility to upload correct document by the Candidate.</td>
</tr>
<tr>
<td></td>
<td>c) Document verification by API (wherever available/ On screen display method)</td>
</tr>
<tr>
<td>3</td>
<td>d) Grievance raising facility and its Redressal mechanism with facility to track changes.</td>
</tr>
<tr>
<td></td>
<td>e) Facility to Approve, Reject or keep on On Hold the application, with facility for auto intimation to the Candidate.</td>
</tr>
<tr>
<td></td>
<td>f) Providing internal messaging module through which communication takes place between E-Verification Module, admin, CET CELL and Directorates</td>
</tr>
<tr>
<td></td>
<td>g) To facilitate training to FC-ARC identified by CET CELL for the uploaded documentE-Verification module, raising/closing/ Resolving the grievances.</td>
</tr>
<tr>
<td></td>
<td>h) Online support to FC-ARC centre center for E-Verification process.</td>
</tr>
<tr>
<td>Sr.No.</td>
<td>Activities</td>
</tr>
<tr>
<td>--------</td>
<td>------------</td>
</tr>
<tr>
<td>4</td>
<td><strong>To generate Provisional Merit List (vendor)</strong> Prepare &amp; Display provisional merit list as per the approved admission rules and eligibility criteria by the Government for the respective courses. Facility to display the incomplete Applications.</td>
</tr>
</tbody>
</table>
| 5      | **To create facility to raise and accept Grievances on Provisional Merit List by candidate and grievance resolution through FC-ARC module(vendor)**  
  a) SMS sending & Email reply Facility  
  b) Generation of required Reports/ Dashboard  
  c) Online support / help desk  
  d) CALL centre facility daily receipt and resolution report.  
  e) Provide internal messaging module for communication between candidate and FC & Facility for FC/ARC/ Institute to comply the grievances |
| 6      | **Publishing of final merit list (in pdf format) (vendor)** General/All India Level/category wise/course wise/candidature type wise and as per any other requirement of CET CELL for each course. |
| 7      | **Preparing Seat Matrix (vendor)** To prepare course wise seat matrix as per the provisions in Government Notifications and Resolutions using College Registration Database and displaying it on the Admission Portal after approval of competent authority (Director/Commissioner) |
| 8      | **Filling of Online Preference/Option form for CANDIDATE as per the provision in government notification & information brochure. (vendor)**  
  a) SMS / e-mail sending for notifications.  
  b) Online support / help desk  
  c) CALL centre facility  
  d) Creating facility to view the colleges at Region, University, College type (Govt./Aided/Unaided/Minority/non-Minority), Course, Stream, Subject/Specialization.  
  e) College wise course wise fees to be displayed.  
  f) Facility to view the filled in option/preferences, facility to review/edit/modify before finally submitting it.  
  g) Facility to take print out of the final option form after final submission with date and time Stamp.  
  h) Generation of required Reports/ Dashboard |
| 9      | **Seat Allotment (vendor)** Generation of Allotment Lists Round wise (including Conversion/Inter-se Merit Round with provision to create Merit list (Mark Attendance) as per the logic provided in the Government Notifications, Resolutions and CAP Information Brochure, to provide the allotment letter to respective Candidate’s login after every allotment;  
  **Scope and feature of candidate Seat Allotment:** -  
  **Standardization of Master Data**  
  a) **Pre-Allotment Validation**  
    i. Validation of the Data received  
    ii. Rectification of the Data  
    iii. Fetch the Candidate Data/Option filled data of the candidates  
    iv. Import row data in the respective Table  
    v. Revalidation in Various Parameters allocation logic. |
<table>
<thead>
<tr>
<th>Sr.No.</th>
<th>Activities</th>
</tr>
</thead>
</table>
| b) Allotment Processing | i. Execute the Allotment Programme and process input data as per the Allotment Logic given in the Rule set for each stage and rounds of the Centralized Admission process (CAP) for each Course.  
  ii. Calculate and validate the real time Seat Vacancy for subsequent rounds based upon the reporting status of the Candidate.  
  iii. If any correction/suggestions are suggested by officials in allotment list they should be rectified on the spot immediately.  
  iv. Display of allotment list & Provide allotment letter to individual candidate in candidate login & Institute/course wise allotted candidate’s list in institute login.  
  v. SMS/ E-mail to candidate regarding allotment of seat. SMS to institutes  
  vi. After allotment of seat to provide feedback module to institute  
  vii. Providing the facility of Freeze, Float, refuse, reject, retention and cancel to candidate during the CAP round also provision for collection of seat acceptance fee if candidate opted freeze or float facility as per provided in the Government Notifications and CAP Information Brochure |
| c) Post Allotment Validation | i. On successful completion of the Output of the Allotment is checked/Validated as per the Rules of each stage.  
  ii. Output is validated for Merit Violation, Duplication of Seat Allotted, demand against vacant seat etc.  
  iii. Validation Report Generation as per the various validations Executed. |
  b) Publish details regarding the category wise, quota wise as per government notifications / Court orders if any, Horizontal reservation wise merit and up to date category wise vacant positions available during every admission round.  
  c) To publish merit list before every CAP round after considering the rejection by the college and the updating the merit list by incorporating the reason of rejection while publishing the merit list, last merit list and the available vacant seats before start of the Spot round; |
| Spot / Institutional Rounds(vendor) | a) To be carried out as per the government notification/information brochure of respective department.  
  b) To provide the online facility to “Spot Admission Process Center” to register the names of candidates as per the prescribed eligibility.  
  c) To generate the merit list for that day of Spot Round through online. There will be separate merit list for each day of “Spot Admission Process”.  
  d) To provide the online dynamic display of the quota and category wise vacant seats to the “Spot Admission Process Center”.  
  e) To provide the facility as per the procedure prescribed in the Information Brochure to online report of the Spot Round admitted candidates through the log-in of the respective Spot Admission Process Center. |
<table>
<thead>
<tr>
<th>12</th>
<th><strong>Generation of MIS reports (vendor)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Online Generation of Reports of Admitted, refused, rejected, Not reported and Cancelled Candidates or any other report from institute and candidate’s available data base as per requirement of CET CELL. Sample Reports are Below-</td>
</tr>
<tr>
<td></td>
<td>i. Error List of Incorrect Applications in Preferences Database</td>
</tr>
<tr>
<td></td>
<td>ii. List of Ineligible Candidates</td>
</tr>
<tr>
<td></td>
<td>iii. Checklist of Applicants</td>
</tr>
<tr>
<td></td>
<td>iv. Merit List</td>
</tr>
<tr>
<td></td>
<td>v. ARA Report</td>
</tr>
<tr>
<td></td>
<td>vi. College wise Vacancy Position</td>
</tr>
<tr>
<td></td>
<td>vii. College-wise Selection List</td>
</tr>
<tr>
<td></td>
<td>viii. College-wise/Course wise Allotment List</td>
</tr>
<tr>
<td></td>
<td>ix. College-wise Original v/s Current Seats</td>
</tr>
<tr>
<td></td>
<td>x. College-wise Category-wise First &amp; Last Selected Applicant</td>
</tr>
<tr>
<td></td>
<td>xi. Course-wise Region-wise Category-wise First &amp; Last Selected Applicant</td>
</tr>
<tr>
<td></td>
<td>xii. College-wise Category-wise Cancellations</td>
</tr>
<tr>
<td></td>
<td>xiii. Checklist of Cancellations/not-joined and retentions.</td>
</tr>
<tr>
<td></td>
<td>xiv. Quota-wise Selected Applicants</td>
</tr>
<tr>
<td></td>
<td>xv. List of Colleges</td>
</tr>
<tr>
<td></td>
<td>xvi. Round-wise Analysis of Selected Applicants</td>
</tr>
<tr>
<td></td>
<td>xvii. Round-wise Analysis of All Applicants</td>
</tr>
<tr>
<td></td>
<td>xviii. Region-wise Seats Distribution</td>
</tr>
<tr>
<td></td>
<td>xix. Region-wise Analysis of Selected Applicants</td>
</tr>
<tr>
<td></td>
<td>xx. Category-wise Analysis of Selected Applicants</td>
</tr>
<tr>
<td></td>
<td>xxi. Faculty-wise Analysis of Selected Applicants</td>
</tr>
<tr>
<td></td>
<td>xxi. Round and Faculty wise report of Selected v/s Not selected Candidates</td>
</tr>
<tr>
<td></td>
<td>xxii. Any other report as may be required and specified.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>13</th>
<th><strong>Training Module(vendor)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Complete Application training to be provide by Vendor, to FC-ARC Centre at various Levels and institutes especially for E- verification Module.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14</th>
<th><strong>Report and Output Generation-(vendor)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>i. After Output Validation Institute- wise Allotment list is generated for each institute.</td>
</tr>
<tr>
<td></td>
<td>ii. Cut-off list to be generated Institute wise which displays the cut-offs for various Seat types.</td>
</tr>
<tr>
<td></td>
<td>iii. Providing the allotment data in prescribed format preferably in Microsoft Excel, Access database (.mdb files)</td>
</tr>
<tr>
<td></td>
<td>iv. Handover the data in a secured way or as prescribed by CET CELL for each Round.</td>
</tr>
<tr>
<td></td>
<td>v. Compilation of Allotment Data</td>
</tr>
<tr>
<td></td>
<td>vi. Compiling the input and output of the Allotment Data of all the Rounds for the respective Course.</td>
</tr>
</tbody>
</table>
**Admissions Regulating Authority**

**a. Information for Admissions Regulating Authority**

**I. College details (to be fetched from College Reg. Module and other Module)**

i. Name and address of the College/Institute  
ii. Correspondence Details of the College  
iii. Status of the College (Govt./Aided/Aided minority/Unaided/, Unaided Minority/ University managed/, Municipal Corporation Managed etc)  
iv. Code of the College  
v. Intake Capacity  
vi. Seats filled by Competent Authority  
vii. Institute level/NRI/Management / Minority Seats/AIQ within Intake capacity.  
viii. Over & above sanctioned seats (TFWS/J&K/GOI etc)

**II. All admitted Candidate details as on cut-off date (vendor)**

i. Merit Number  
ii. Merit Marks  
iii. Qualifying exam marks  
iv. Application ID  
v. Name of the Candidate  
vi. Category  
vi. Gender  
ix. PH Type  
x. Defense Type  
xii. Admission Date  

**b. Provisions required for login to access, updates etc (vendor)**

i. Admissions Regulating Authority  
ii. Directorates  
iii. Universities  
iv. Colleges/Institutes  
v. Candidates

**c. Module Consist of (vendor)**

i. Searching of institute  
ii. Payment of Process fees /penalties/ late fees from Institutes through payment gateway and its reports  
iii. Respective Directorate for verification and update reports collegewise/ candidateswise  
iv. Mentioning admission status against each candidate  
v. Generation of Admission Approval letters  
vi. Approval of the admissions to be informed to College/University/Concerned candidate by logins/mail/sms  
vii. Consideration of review applications submitted by candidates/colleges.  
viii. Any other points as per clause 9 of the Act 2015 and decision will be taken by Authority time to time.

**d. Reports (vendor)**

i. Institutewise / Coursewise / Directoratewise admitted details_ Count & List.  
ii. Institutewise / Coursewise / Directoratewise vacancy details_ Count & List  
iii. Institutewise / Candidatewise / Coursewise / Directoratewise Approval Status _ Count& List  
iv. Institutewise / Coursewise / Directoratewise Details of fees/penalties/late fees
### Annexure 9: Count of Candidates for CET & CAP in A.Y.2022-23

<table>
<thead>
<tr>
<th>SN</th>
<th>No of Candidates Registered in various CETs A.Y.2022-23</th>
<th>No of Candidates Registered in Various courses’ CAP A.Y.2022-23</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10,01,816</td>
<td>5,63,432</td>
</tr>
</tbody>
</table>
19 Annexure 10: Flow Diagram: CET Process

Flow Diagram: CET Process

1. To Launch Course wise CET Registration Portal-2023
2. To Publish Notices, CET Information Brochure, CET Activity Schedule
3. To Start Course wise candidate Registration and form filling, form submission for CET-2023
4. Extension to CET form filling, if required.
5. Closure of CET Form Filling.
6. To provide CET Application select edit facility to the candidates
7. To Finalize format of CET Hall Ticket
8. To Finalize course wise Center wise Batch allocation
9. To Generate and publish Course wise Hall Ticket
10. To Conduct CET as per the schedule
11. To launch Objection Module
12. To display Question paper & Answer key to the candidates in their login
13. To display Final Answer Key and CET Result
14. Handover CET Data to CET CELL
Annexure 11: Flow Diagram: CAP Process

Flow Diagram: CAP Process

1. To Launch Course wise CAP Registration Portal
2. To Start Course wise candidate form filling for CAP With Physical or E-scrutiny Module
3. To display of CAP schedule, Information Brochure & Notices etc.
4. To prepared and Display course wise, Institute wise Seat Matrix and march it with previous year seat matrix
5. To display Provisional/Alphabetical merit list
6. To seek grievances on provisional merit list
7. To prepared & display final merit list taking into account grievances raised
8. Course wise Facility of online Option form filling Round 1
9. To prepared & Display Course wise Allocation for (Round 1)
10. Online Facility for freeze/betterment for candidates with seat acceptance payment facility (Round 1)
11. Facility for online admission confirmation and rejection to Institute/colleges (Round 1)
12. To prepare and Display institute, course wise Admission/ Vacancy Report (Round 1)
13. Course wise Facility of online Option form filling Round 1
14. To prepare & Display Course wise Allocation for (Round 1)
15. Course wise Facility of online Option form filling
16. To prepare and Display Course wise Allocation (Depend on Rounds)
17. To prepare and Display Vacancy course wise Report (Depend on Rounds)
18. Institute Level Rounds
19. CUT off Date of Admission
20. Closure of CAP process
Annexure 12: Flow Diagram: ARA Process

1. To launch ARA module with ARA admin login
2. Facility to upload the admitted data and documents and make payment of ARA fee to institute
3. To create login for Directorate & regional directorate to verify the admission
4. Facility to rectify discrepancy from College login & remove the discrepancy
5. To display Directorate wise/course wise final report in ARA login
6. To create facility to verify admission from ARA Login
7. To generate directorate, course wise approved / not approved admission report
8. Facility to provide admission approval report in college login
9. Facility to raise appeal against rejection of admission with payment gateway integration
10. Closure of ARA process after auto generation of verified Admission report