

2019

DEHRADUN SMART CITY LIMITED

National Competitive Bidding (NCB) Tender for Providing Smart Solutions to 3 Nos. School in Dehradun including IT Solutions, Civil and Electrical Works through E-Procurement.



Bid Ref No.: 02/DSCL/18-19/SS

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DEHRADUN SMART CITY LIMITED)

Bid Ref No. 02/DSCL/18-19/SS

Date: 27/02/2019

DEHRADUN SMART CITY LIMITED (hereafter referred to as "Authority") invites online bids from the eligible bidders for **"PROVIDING SMART SOLUTIONS TO 3 NOS. SCHOOL IN DEHRADUN INCLUDING IT SOLUTIONS, CIVIL AND ELECTRICAL WORKS THROUGH E-PROCUREMENT"**

The details are as under:

BID DOCUMENT INFORMATION		
Sr. No.	Particulars	Information
1.	REF No.	02/DSCL/18-19/SS
2.	Scope of Work	<p>1. "Provisioning, Installation and Making Go-Live the Smart Classroom Infrastructure along with other miscellaneous works in the Government Girls Inter College, Rajpur Road Dehradun, Government Inter College, Khurbura and Government Girls Junior High School, Khurbura in Dehradun"</p> <p>2. Retrofitting & Repairing work (Civil/Electrical) in Government Inter College, Khurbura, Dehradun. & Government Girls Junior High School, Khurbura, Dehradun</p>
3.	Location of Work	<p>1. Government Girls Inter College, Rajpur Road, Dehradun</p> <p>2. Government Inter College, Khurbura, Dehradun.</p> <p>3. Government Girls Junior High School, Khurbura, Dehradun</p>
4.	Contractual Completion Period	9 months from the date of final contract signing.
5.	Operations & Management (O & M)/Defect Liability Period	<p>1. 36 months from the date of issuance of "Operational Acceptance Certificate by the authority" for Smart Class Room work.</p> <p>2. Defect liability period of 12 months from the date of issuance of "Operational Acceptance Certificate by the authority" for Retrofitting & Repairing work.</p>
6.	Tender document Fee	INR 10,000/- (Indian Rupees Ten Thousand Only) inclusive of GST in the form of Demand Draft payable at DEHRADUN issued in favour of "Chief Executive Officer, Dehradun Smart City Limited").
7.	Date of Issue of Tender Documents	27/02/2019
8.	Bid Security (Earnest Money Deposit)	INR 8.66 Lakhs (Indian Rupees Eight Lakhs Sixty Six Thousand Only) in the form of DD/FDR/TDR/BG payable at DEHRADUN issued in favour of "Chief Executive Officer, Dehradun Smart City Limited") valid up to 45 days beyond the validity of the bid (120 + 45) days.
9.	Last date for sending pre-bid queries	NOT APPLICABLE
10.	Date, Time of Pre-bid Meeting	NOT APPLICABLE

11.	Venue	NOT APPLICABLE
12.	Availability of Tender Documents	The Tender document for this work shall be available from website http://uktenders.gov.in from 1000 Hrs at 27/02/2019 to 08/03/2019 up to 1000 Hrs.
13.	Last date for down loading of bid document from the E-procurement platform: http://uktenders.gov.in	08/03/2019 up to 1000 Hrs. The scan copy of the tender fees, affidavit and bid security/EMD shall be uploaded on the e-procurement website.
14.	Last date and time for bid submission/uploading of bid in E-procurement platform	08/03/2019 up to 1030 Hrs
15.	Submission of original documents i.e. EMD, Tender Fees (Non-refundable) and Affidavit for Correctness of Bid	08/03/2019 up to 1100 Hrs. Address for submission of original documents: Office of the Chief Executive Officer, Dehradun Smart City Limited, 777, Saatvik Tower, Rajender Nager, Kaulagarh Road, Dehradun, 248001, Uttarakhand, India Ph: 0135-2750894, Fax: 0135-2750817
16.	Time and date of opening of Technical Bids	The Bids will be opened on line by the Authorized Officers on 08/03/2019 at 1130 Hrs
17.	Date and time of opening of Financial Bids	Shall be informed later to technically qualified Bidders
18.	Place of opening of Bids and address for communication	Office of the Chief Executive Officer, Dehradun Smart City Limited, 777, Saatvik Tower, Rajender Nager, Kaulagarh Road, Dehradun, 248001, Uttarakhand, India Ph: 0135-2750894, Fax: 0135-2750817

**Chief Executive Officer
DEHRADUN SMART CITY LIMITED**

Disclaimer

DEHRADUN Smart City Limited (**DSCL**) was selected to implement the Area Based Development (**ABD**) and Pan-City Proposals (**PCP**) by Government of India under Smart City Project. DEHRADUN Smart City Project proposes smart solutions for various smart infrastructure.

DEHRADUN SMART CITY LIMITED has prepared this Request for Bids (**RFB**) for “Provisioning, Installation and Making Go-Live the Smart Classroom Infrastructure along with other miscellaneous works in the Government Girls Inter College, Rajpur Road, Dehradun 2. Government Inter College, Khurbura, Dehradun. 3. Government Girls Junior High School, Khurbura, Dehradun.” This RFB is a detailed document which specifies terms and conditions on which the bidder is expected to work. DEHRADUN SMART CITY LIMITED has taken due care in preparation of information contained herein and believes it to be accurate. However, neither DEHRADUN SMART CITY LIMITED or any of its authorities or agencies nor any of their respective officers employees, agents, or advisors give any warranty or make any representations, express or implied as to the completeness or accuracy of the information contained in this document or any information which may be provided in connection or arising out of it.

The information provided in this document is to assist the bidder(s) in preparing their bids. However, this information is not intended to be exhaustive, and interested parties are expected to make their own inquiries to supplement and verify information in this document. The information is provided on the basis that it is non-binding on DEHRADUN SMART CITY LIMITED or any of its authorities or agencies, or any of their respective officers, employees, agents, or advisors. Each bidder is advised to consider the RFB as per its understanding and capacity. The bidders are also advised to do appropriate examination, enquiry and scrutiny of all aspects mentioned in the RFB before bidding. The bidders are encouraged to take professional help of experts on financial, legal, technical, taxation, and any other matters/ sectors appearing in the document or specified work. The bidders should go through the RFB in detail and bring to notice of DEHRADUN SMART CITY LIMITED any kind of error, misprint, inaccuracy or omission.

DEHRADUN SMART CITY LIMITED reserves the right not to proceed with the Project, to alter the timeline reflected in this document, or to change the process or procedure to be applied. It also reserves the right to decline to discuss the Project further with any party submitting a proposal. No reimbursement or cost of any type will be paid to persons, entities, or consortiums submitting a proposal by under or pursuant under this RFB.

LIST OF ABBREVIATIONS

ABD	Area Based Development
AMC	Annual Maintenance Contract
ABG	Advance Bank Guarantee
BCA	Bachelors in Computer Application
BEC	Bid Evaluation Committee
CAMC	Comprehensive Annual Maintenance Contract
CBSE	Central Board of Secondary Education
CCTV	Closed Circuit Television
CEO	Chief Executive Officer
DB	Distribution Board
DCR	Domestic Content Requirement
DLP	Digital Light Processing
DMC	Dehradun Municipal Corporation
DSCL	Dehradun Smart City Limited
DVD	Digital Video Disc
DVR	Digital Video Recorder
FAQs	Frequently Asked Questions
FM	Financial Proposal
FW	Financial Score Weightage
GCC	General Conditions of Contract
HD	High Definition
HDMI	High-Definition Multimedia Interface
INR	Indian Rupees
IP	Internet Protocol
IR	Infra-Red
LoA	Letter of Acceptance/ Award
MCA	Master of Computer Applications
NCERT	National Council of Educational Research and Training
NEFT	National Electronic Fund Transfer
NIT	Notice Inviting Tender
O&M	Operation and Maintenance
OEM	Original Equipment Manufacturer
PCP	Pan-City Proposals
PMPO	Peak Music Power Output
RFID	Radio Frequency Identification
PBG	Performance Bank Guarantee
RAM	Random-access memory
RFID	Radio Frequency Identification
RFB	Request for Bid
RTGS	Real-Time Gross Settlement
SCP	Smart City Proposal
SF	Financial Score
SMPS	Switched-Mode Power Supply
SPOC	Single Point of Contact
SPV	Special Purpose Vehicle
ST	Technical Score
TB	Terabyte
TCB	Total Cost of Bid
TW	Technical Score Weightage
UPS	Uninterruptible Power Supply
USB	Universal Serial Bus

VDSL	Very-high-bit-rate digital subscriber line
VGA	Video Graphics Array
VWB	Visual White Board
CAMC	Comprehensive Annual Maintenance Contract

DEFINITIONS AND INTERPRETATIONS

In this "Bid / RFB Document" the following words and expression will have the meaning as herein defined where the context so admits

1. "**Affiliate**" shall mean a company that either directly or indirectly
 - a. controls or
 - b. is controlled by or
 - c. is under common control with
 - d. A Bidding Company and "control" means ownership by one company of at least twenty six percent (26%) of the voting rights of the other company.
2. "**ABD**" Shall mean Area Based Development in the DEHRADUN Smart city proposals.
3. "**B.I.S**" shall mean specifications of Bureau of Indian Standards (BIS);
4. "**Bid / Tender**" shall mean the Techno Commercial and Price Bid submitted by the Bidder along with all documents / credentials / attachments / annexure etc., in response to this RFB, in accordance with the terms and conditions hereof.
5. "**Bidder / Bidding Company**" shall mean Bidding Company submitting the Bid. Any reference to the Bidder includes Bidding Company / including its successors, executors and permitted assigns as the context may require;
6. "**Bid Deadline**" shall mean the last date and time for submission of Bid in response to this RFB as specified in Bid information Sheet;
7. "**Bid Capacity**" shall means capacity offered by the bidder in his Bid under invitation.
8. "**UPCL**" shall mean Uttarakhand Power Corporation Limited.
9. "**Chartered Accountant**" shall mean a person practicing in India or a firm whereof all the partners practicing in India as a Chartered Accountant(s) within the meaning of the Chartered Accountants Act, 1949;
10. "**Competent Authority**" shall mean CEO of DEHRADUN SMART CITY LIMITED himself and / or a person or group of persons nominated by CEO for the mentioned purpose herein;
11. "**Commencement Date**" shall be the same as contract date.
12. "**Commissioning**" means Successful operation of the Project / Works by the successful Bidder, for the purpose of carrying out Performance Test(s) as defined in RFB.
13. "**Company**" shall mean a body incorporated in India under the Companies Act, 1956 or Companies Act, 2013 including any amendment thereto;
14. "**Contract**" Agreement made between DSCL and the selected bidder within 15 days of issue of Letter of Award (LOA).
15. "**Contract date**" Date of Signing the Contract
16. "**Contract Amount**" The total price quoted by the selected bidder
17. "**DSCL**" Dehradun Smart City Limited
18. "**Price Bid**" shall mean the Bidder's quoted Price as per the Section - IV of this RFB;
19. "**RFB**" shall mean Request for Bid (RFB) / Bid Document / Tender Document
20. "**O&M**" shall mean Operation & Maintenance for 3 years after issue of "Completion Certificate of Project".

Interpretations:

1. Words comprising the singular shall include the plural & vice versa.
2. An applicable law shall be construed as reference to such applicable law including its amendments or re-enactments from time to time.
3. A time of day shall save as otherwise provided in any agreement or document be construed as a reference to Indian Standard Time.
4. Different parts of this contract are to be taken as mutually explanatory and supplementary to each other and if there is any differentiation between or among the parts of this contract, they shall be interpreted in a harmonious manner so as to give effect to each part.
5. The table of contents and any headings or sub headings in the contract has been inserted for case of reference only & shall not affect the interpretation of this agreement.

1. Instruction to Bidders

1.1 General Information and Guidelines

1.1.1 Purpose

Dehradun Smart City Limited seeks the services of a reputed company, for “Providing, Installing, Commissioning and Making Go-Live the Smart Provisioning, Installation and Making Go-Live the Smart Classroom Infrastructure along with other miscellaneous works in the

1. Government Girls Inter College, Rajpur Road, Dehradun
 2. Government Inter College Khurbura. Dehradun
 3. Government Girls Junior High School, Khurbura, Dehradun
- (Hereinafter referred to as the “Project”). This document provides information to enable the bidders to understand the broad requirements to submit their Proposals. The detailed scope of work is provided in this RFB document.

1.1.2 JV/Consortium

- i. Maximum number of allowed members in a JV/consortium are three (3). All the technical and financial experience has to be mandatorily met by the respective members of IT and Civil/Electrical. For promoting start-ups, a bidder may associate with start-ups subjected to meeting all the above mentioned conditions.
- ii. The Bidder for participation in the Selection Process, may be a single entity or a group of entities (the “JV/Consortium”), coming together to execute the project. The term 'Bidder' used herein would apply to both a single Entity and a JV/Consortium.
- iii. The Successful Bidder at no given point of time, may assign or delegate its rights, duties or obligations under the Agreement/ Contract except with prior written consent of the Authority
- iv. No bidder applying individually, or as a member of a JV/Consortium, as the case may be, can be a member of any other JV/consortium bidding for the Project.
- v. In the event the bidder is a JV/Consortium, it shall, comply with the following additional requirements:
 - a) The Members of the JV/Consortium shall nominate one of the member as the Lead Member in writing and the same shall be submitted in the bid.
 - b) The Members of the JV/Consortium shall be jointly and severally responsible for successful implementation of the Project throughout the terms of the contract.
 - c) The Lead Member shall be authorized and shall be fully responsible for the accuracy and veracity of the representations and information submitted by the JV/Consortium or its members respectively from time to time in the response to this RFB would strictly followed.
 - d) The Members of the JV/Consortium shall submit a JV/Consortium Agreements consisting of the following:
 - Undertake that each of the members of the JV/Consortium shall have an independent, definite and separate scope of work, allocated as per each member’s agreed scope of work.
 - Commit to the profit and loss sharing ratio of each member.
 - Commit to the scope of work, rights, obligations and liabilities to be held by each member.
 - Provide a brief description of the roles and responsibilities of individual members; and clearly define the proposed administrative arrangements (organization chart) for the management and execution of the Project.
 - Include a statement to the effect that all the members of the JV/Consortium shall be jointly and separately liable for all obligations in relation to the Contract until the completion of the Project in accordance with the Contract

- e) In case the Successful Bidder is a JV/Consortium, then no change in the Lead member is permissible at any stage.

1.1.3 Bid Security/ Earnest Money Deposit (EMD),

The bidder should submit the Bid Security Amount of **INR 8.66 Lakhs/-** (Indian Rupees Eight Lakhs Sixty Six Thousand Only) in the form of DD/BG/FDR/TDR from any Indian scheduled/ nationalized Bank in favor of Chief Executive Officer, Dehradun Smart City Limited payable at Dehradun valid up to 45 days beyond the validity of the bid (120 + 45) days.

1.1.4 Completeness of Bid

The bid should be complete in all respects. Failure to furnish all information required by the RFB document or submission of a bid not substantially responsive to the RFB document in every respect will be at the bidder's risk and may result in rejection of its Bid.

1.1.5 Proposal Preparation Costs

1. The bidder shall submit the bid at its cost and expense. AUTHORITY shall not be held responsible for any cost incurred by the bidder. Submission of a bid does not entitle the bidder to claim any cost and rights over AUTHORITY and AUTHORITY shall be at liberty to cancel any or all bids without giving any notice.
2. All materials submitted by the bidder shall be the absolute property of AUTHORITY and no copyright etc. shall be entertained by AUTHORITY.

1.1.6 Pre-bid Meeting and Queries

1. Since this is a re-bid to the earlier tender having reference no. **01/DSCL/18-19/SS** and all the valid points of the earlier pre-bid minutes have been incorporated in the current tender, **therefore there will not be any pre-bid meeting**. If there is any clarification required, interested bidder may contact Mr. Surya Kotnala, AGM(Procurement & Contract Management) at +91 7060033338 and agmproc-dscl@uk.gov.in.

1.1.7 Supplementary Information to the RFB

If AUTHORITY deems it appropriate to revise any part of this RFB or to issue additional data to clarify an interpretation of provisions of this RFB, it may issue corrigendum(s) to this RFB. Any such corrigendum shall be deemed to be incorporated by this reference into this RFB and shall be uploaded in <https://uktenders.gov.in> only.

1.1.8 DEHRADUN SMART CITY LIMITED's Right to Terminate the Process

AUTHORITY may terminate the RFB process at any time and without assigning any reason. AUTHORITY reserves the right to amend/ edit/ add/ delete any clause of this RFB Document. This will be informed to all and will become part of the RFB.

1.1.9 Site Visit and Verification of Information

The bidder shall visit all the three schools thoroughly and shall study the existing environment regarding the Civil, Electrical & IT related works including the complete IT infrastructure network and shall quote the rates accordingly.

1.2 Bid Submission Instructions

1.2.1 Bid Submission Format

The entire Bid shall be submitted strictly as per the format specified in this RFB. Bids with any deviation from the prescribed format are liable for rejection.

1.2.2 Bid Submission Instructions

1. The details of the three cover system for the submission of bids shall be in accordance with the instructions given in the Table below:

Particulars	Instructions
Cover 1	Tender Fees(Non-Refundable), EMD and Affidavit for Correctness of Bid
Mode of Submission	Online and Hard Copy
Tender Fee	Scan copy of Tender Document Fee should be uploaded.
Earnest Money	EMD should be in the form of DD/BG/FDR/TDR from any Indian scheduled/nationalized Bank. Scan copy of the same should be uploaded.
Affidavit	Scan copy of the Affidavit for Correctness of Bid should be uploaded
Cover 2	Technical Bid
Mode of Submission	Online Only
Technical Bid	The Technical Bid shall be prepared in accordance with the requirements specified in this RFB and the formats as prescribed in the RFB.
Cover 3	Financial Bid
Mode of Submission	Online Only
Financial Proposal	The Financial Proposal shall be prepared in accordance with the requirements specified in this RFB and in the formats as prescribed in the RFB.

Note: The following points shall be in consideration for submission of bids:

- a. Authority shall not accept delivery of Bids in any manner other than that specified in this RFB. Bid delivered in any other manner shall be treated as defective, invalid and rejected.
- b. The Bidder is expected to price all the items and services sought in the RFB and proposed in the technical bid. The Bid should be comprehensive and inclusive of all the services to be provided by the Bidder as per the scope of work and in accordance with the terms and conditions as set out in the RFB.

- c. Authority may seek clarifications from the Bidder on the technical proposal. Any of the clarifications by the Bidder on the technical proposal should not have any commercial implications. The Financial Proposal submitted by the Bidder should be inclusive of all the items in the technical proposal and should incorporate all the clarifications provided by the Bidder on the technical proposal during the evaluation of the technical offer.
- d. Technical Bid shall not contain any financial information.
- e. If the Bidder does not meet the technical evaluation criteria, the financial proposal of the Bidder shall be unopened.
- f. It is required that all the bids submitted in response to this RFB should be unconditional in all respects, failing which AUTHORITY reserves the right to reject the proposal.

1.2.3 Late Bid and Bid Validity Period

Bids received after the due date and the specified time (including the extended period if any) for any reason whatsoever, shall not be entertained. The validity of the bids submitted before deadline shall be till 120 days from the last date of submission of the bids.

1.2.4 Modification and Withdrawal of Bids

No bid shall be withdrawn in the interval between the deadline for submission of bids and the expiration of the validity period specified by the bidder on the bid form else the EMD shall be forfeited.

1.2.5 Non-conforming Bids

A Bid may be construed as a non-conforming proposal and ineligible for consideration:

- a) If it does not comply with the requirements of this RFB
- b) If the Bid does not follow the format requested in this RFB or does not appear to address the particular requirements of AUTHORITY.

1.2.6 Language of Bids

The Bids should be submitted in English language only. If any supporting documents submitted are in any language other than English, then the translation of the same in English language is to be duly attested by the bidder and submitted with the bid, and English translation shall be validated at AUTHORITY's discretion.

1.2.7 Authentication of Bid

- a) Authorized person of the bidder who signs the bid shall obtain the Power of Attorney duly notarized from the bidder, which shall be submitted with the Bid. All pages of the bid and its annexure, etc. shall be signed and stamped by the person or persons signing the bid.
- b) The Bidder should submit a Power of Attorney as per the format set forth in Annexure 6, authorizing the signatory of the Bid to commit the Bidder.

1.2.8 Acknowledgement of Understanding of Terms

By submitting a Bid, each Bidder shall be deemed to acknowledge that he has carefully read all sections of this RFB, including all forms, schedules, annexure, corrigendum and addendums (if any) hereto, and has fully informed itself as to all existing conditions and limitations.

1.3 Evaluation Process

a.	Authority will constitute a Bid Evaluation Committee (BEC) to evaluate the responses of the bidders.
b.	The BEC constituted by authority shall evaluate the responses to the RFB (All Covers) and all supporting documents / documentary evidence. Inability to submit requisite supporting documents / documentary evidence, may lead to rejection.
c.	The decision of the BEC in the evaluation of responses to the RFB shall be final. No correspondence shall be entertained outside the process of negotiation/ discussion with the Committee.
d.	The BEC may ask for meetings with the Bidders to seek clarifications on their bids and may visit Bidder's Site to validate the credentials/ citations claimed by the bidder.
e.	The BEC reserves the right to reject any or all proposals on the basis of any deviations.
f.	Each of the responses shall be evaluated as per the criteria and requirements specified in this RFB.
g.	Please note that BEC may seek inputs from their professional, external experts in the Bid evaluation process.

1.3.1 Bid Opening

- a. Total transparency shall be observed and ensured while opening the Bids. Bids shall be opened in the presence of Bidder/ bidder's authorized representative/s who choose to attend at the Bid opening session on the specified date, time and venue.
- b. AUTHORITY reserves the rights at all times to postpone or cancel a scheduled Bid opening under any circumstances.
- c. Bid opening shall be conducted in 3 (Three) Stages;
 - Stage 1 – Tender Document fee, EMD and Affidavit for Correctness of Bid.
 - Stage 2- Technical Bid Opening. The technical bids of only those bidders shall be opened who will qualify the Stage-1.
 - Stage 3- Financial Bid Opening. The financial bids of only those bidders shall be opened who will qualify the technical Stage-2.
- d. The venue, date and time for opening the all the stages shall be the office of the Authority only.
- e. During Bid opening, preliminary scrutiny of the Bid documents shall be made to determine whether they are complete, whether the Documents have been properly signed and whether the bids are

generally in order. Bids not conforming to such preliminary requirements shall be prima facie rejected. AUTHORITY has the right to reject the bid after due diligence is done.

- f. The Bidder/ Bidder's representative/s who are present shall sign a register evidencing their attendance. In the event of the specified date of Bid opening being declared a holiday for AUTHORITY, the bids shall be opened at the same time and venue on the next working day. In addition to that, if the representative of the Bidder remains absent, AUTHORITY will continue process and open the bids of all the eligible bidders

1.3.2 Evaluation of Technical Proposal

The evaluation of the Technical Proposals will be carried out in the following manner:

- a) Authority will review the technical bids along with the presentation of the bidders to determine whether the technical proposals are substantially responsive. Bids that are not substantially responsive are liable to be disqualified at AUTHORITY's discretion.
- b) Bidders' proposal will be evaluated as per the requirements and guidelines specified in the Annexure 2 and technical evaluation criteria as mentioned in Section 1.3.5 of the RFB.
- c) Each Technical Proposal shall be assigned a technical score out of a maximum of **100 points**. (Refer Section 1.3.5 of the RFB). In order to qualify for the opening of financial proposal, the Bidder must get a **minimum overall technical score of 70 (Seventy)**.
- d) The Bidders are required to submit all required documentation in support of the evaluation criteria specified (e.g. Detailed Project citations and copy of work order, organization information for verification, and all others components) as required for technical evaluation.
- e) At any time during the Bid evaluation process, BEC may seek oral/ written clarifications from the Bidders. The BEC may seek inputs from their professional and technical experts in the evaluation process.
- f) Authority reserves the right to do a reference check of the past experience stated by the Bidder. Any feedback received during the reference check shall be taken into account during the technical evaluation process.
- g) The Financial Proposals of Bidders who do not qualify technically shall be kept unopened.
- h) Authority reserves the right to accept or reject any or all bids without giving any reasons thereof.
- i) Authority shall inform to the technically shortlisted Bidders about the date and venue of the opening of the financial proposals.

1.3.3 Financial Proposal Evaluation

- a) All the technically qualified bidders will be notified to participate in Financial Bid opening process.
- b) Financial Bids for the technically qualified bidders will then be opened on the notified date and time.

- c) The Bidder has to quote price against each of the item mentioned in the price bid BOQ
- d) Total Cost of Bid (TCB) shall be calculated based on the financial format given in the price bid BOQ.
- e) The e-procurement system automatically calculates the total amount from unit rates and quantities and the system also automatically populates the amount in words from the amount In figures and therefore there is no scope of discrepancy and need for arithmetic correction

1.3.5 Technical Evaluation Criteria

Sr. No.	Criteria	Maximum Marks	Method of allotting marks for technical score										
1	COMPANY STANDINGS												
(a)	The Sole Bidder or all the consortium/JV members or any of their parent organization (in case of consortium/JV) must be a registered company in India under the Indian Companies Act 1956.	10	Document Required- Incorporation Certificate Submitted=10 Marks Not Submitted=0 Marks										
(b)	The Sole Bidder or all the consortium/JV members or any of their parent organization (in case of consortium/JV) shall not be blacklisted by any State / Central Government Department or Central /State PSUs.	10	Undertaking in the format given by the authorized signatory in the format given in the RFB on the Bidder's Letterhead Submitted=10 Marks Not Submitted=0 Marks										
2	TECHNICAL PRESENTATION												
(a)	Overall Approach and Methodology (Understanding of the scope of work, proposed execution plan including O&M, trainings, proposed brands/make for IT Work, demo projects)	15	A detailed Presentation to be submitted along with the technical bid covering all the required aspects. Marks shall be given accordingly.										
2	GENERAL EXPERIENCE												
(a)	The Sole Bidder or the Lead Bidder (in case of JV/consortium) should have experience of Implementing projects in India or Abroad for at least 3 years before the last date of submission of bid.	10	<table border="1"> <thead> <tr> <th>Years</th> <th>Marks</th> </tr> </thead> <tbody> <tr> <td>3 to 4 years</td> <td>7</td> </tr> <tr> <td>>4 to 5 years</td> <td>8</td> </tr> <tr> <td>>5 to 6 years</td> <td>9</td> </tr> <tr> <td>>6 years</td> <td>10</td> </tr> </tbody> </table> <p>Certificate of Incorporation along with Experience List showing the name, start date, end date, client name and order value.</p>	Years	Marks	3 to 4 years	7	>4 to 5 years	8	>5 to 6 years	9	>6 years	10
Years	Marks												
3 to 4 years	7												
>4 to 5 years	8												
>5 to 6 years	9												
>6 years	10												
3	SPECIFIC EXPERIENCE												
	<p>Documents Required-</p> <ol style="list-style-type: none"> 1. Work order/ Contract Agreement clearly highlighting the scope of work, Bill of Material and value of the contract/order. 2. Completion/Successful Installation Certificate signed by the competent authority of the client. 3. Experience List showing the name, start date, end date, client name and order value. 												

(a)	The Sole Bidder or Any Member (in case of JV/consortium) should have at least 3 years of experience in Implementing projects related to Smart School/Smart Education in Govt. /Private Schools before the last date of submission of bids.	10	Years		Marks	
			3 to 4 years		7	
			>4 to 5 years		8	
			>5 to 6 years		9	
			>6 years		10	
(b)	The Sole Bidder or Any Member (in case of JV/consortium) shall have successfully executed at least 1 project related to Smart School/Smart Education in Govt. /private Schools for a minimum value of INR 1.50 Cr(in India or abroad) during the last 7 years before the last date of bid submission	10	Projects		Marks	
			1 No.		7	
			2 No.		8	
			3 No.		9	
			≥4 No.		10	
(c)	The Sole Bidder or any member (in case of JV/consortium) shall have successfully executed at least 1 project related to Building /Retrofitting/ Repairing works including electrical works as a prime contractor/ (JV/consortium member)/ sub-contractor for a minimum value of INR 0.60 Cr(in India or abroad) during the last 7 years before the last date of bid submission	10	Projects		Marks	
			1 No.		7	
			2 No.		8	
			3 No.		9	
			≥4 No.		10	
4	FINANCIAL EXPERIENCE Documents Required- 1. Average Annual Turnover Certificate certified by CA and Audited Balance Sheets of last three financial years i.e. FY 15-16, FY 16-17 and FY 17-18.					
(a)	The Sole Bidder or Lead Bidder (in case of JV/consortium) should have a minimum average annual turnover of INR 4.00 Crores during the last three financial years i.e. FY 15-16, FY 16-17 and FY 17-18.	15	Turnover		Marks	
			INR 4 to 5 Cr.		10.5	
			>5 Cr to 6 Cr		12	
			>6 Cr. To 7 Cr.		13	
			>7 Cr. To 8 Cr.		14	
>8 Cr.		15				
5	OTHER CERTIFICATE					
(a)	The Sole Bidder or Any Member (in case of JV/consortium) should submit the Authorization Certificate for Projector, Computer, CCTV, Server, Multimedia PC, Firewall, UTM, network switches and UPS.	10	All authorization certificates submitted = 10 Marks. All authorization certificates not submitted =0 Marks.			

Note: Authority reserves right to visit bidder's customer where such a similar project execution has taken place. Bidder(s) may be called for the demonstration of the proposed system at a Colleges specified by DEHRADUN SMART CITY LIMITED.

1.4 Award of Contract

1.4.1 Award Criteria

1. All the technically qualified bidders will be notified to participate in Financial Proposal opening process.
2. The cost indicated in the price bid BOQ of the Financial Bid shall be deemed as final and reflecting the total cost of services and should be stated in INR only. Omissions, if any, in costing of any item shall not entitle the Bidder to be compensated and the liability to fulfil its obligations as per the Scope of Work and Technical Specifications within the total quoted price shall be that of the Bidder. The Bidder shall bear all taxes, duties, fees, levies and other charges imposed under the Applicable Law as applicable. The evaluation shall be done for the complete requirement as a single PACKAGE exclusive of taxes.
3. The Bidder with the lowest quote in the price bid BOQ for the complete requirement as a single PACKAGE exclusive of taxes will be declared as a successful bidder.
4. If there is more than one bidder having the same value of the financial bid, AUTHORITY reserves the right to finalize the Successful Bidder and that will be binding on all bidders.

1.4.2 Letter of Award (LoA)

Prior to the expiration of the period of bid validity, AUTHORITY will notify the Successful Bidder in writing or by fax or email, to be confirmed in writing by letter, that its bid has been accepted. LoA will constitute the formation of the contract.

1.4.3 Signing of Contract

AUTHORITY shall notify the Successful Bidder that its bid has been accepted. The Successful Bidder shall enter into contract agreement with AUTHORITY within the time frame mentioned in the Letter of Award issued to the Successful Bidder by AUTHORITY.

1.4.4 Failure to Agree With the Terms & Conditions of the RFB/ Contract

Failure of the Successful Bidder to agree with the Terms & Conditions of the RFB/ Contract shall constitute sufficient grounds for the annulment of the award, in which event AUTHORITY will forfeit the EMD and may invite the next best bidder for negotiations or may call for fresh RFB.

1.4.5 Dehradun Smart City Limited's Right to accept any Bid and to reject any or All Bids

Authority reserves the right to accept or reject any Bid, and to annul the bidding process and reject any or all Bids 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 Authority action.

1.5 Right to Vary Quantity

- a) At the time of award of contract or during the execution of the contract, the quantity of goods, works or services originally specified in the bidding documents/price bid BOQ may be increased or decreased up to 15% of the final contract value. It shall be without any change in the unit prices or other terms and conditions of the Bid and bidding documents.
- b) If authority does not procure any subject matter of procurement or procures less than the quantity specified in the bidding documents due to change in circumstances, the bidder shall not be entitled for any claim or compensation.
- c) Repeat orders for extra items or additional quantities may be placed on the rates and conditions given in the contract Delivery or completion period may also be proportionally increased.

1.6 Warranty & Maintenance

- a) Successful Bidder shall also provide complete maintenance support for all supplied hardware and other components as outlined in this RFB for a period of 36 months from the date of **Go-Live**.
- b) During the warranty period, the bidder shall warrant that the goods supplied under the contract are new, unused, of the most recent version/ models and incorporate all recent improvements in design and materials unless provided otherwise in the contract. The bidder further warrants that the goods supplied under this contract shall have no defects arising from design, materials or workmanship & Installation
- c) Authority or its designated officials shall promptly notify Successful Bidder in writing of any claims arising under this warranty. Upon receipt of such notice, the Successful Bidder shall, within the warranty period and with all reasonable speed, repair or replace the defective systems, without costs to authority and within time specified and acceptable to authority.
- d) If the Successful Bidder, having been notified, fails to remedy the defect(s) within the period specified in the contract, authority may proceed to take such reasonable remedial action as may be necessary, at the Successful Bidder's risk and expense and without prejudice to any other rights, which authority may have against the bidder under the contract.
- e) During the comprehensive warranty period, the Successful Bidder shall provide all product(s), patches/ fixes, and version upgrades within 15 (fifteen) days of their availability and should carry out installation and make operational the same at no additional cost to authority.
- f) Any defect during warranty would be remedies within a week without any delay.
- g) The Successful Bidder hereby warrants authority that:
 - (i) The supplied Hardware and Software meet all the requirements as outlined in the RFB and further amendments, if any and provides the functionality and performance, as per the terms and conditions specified in the contract.

- (ii) The proposed Hardware and Software shall achieve parameters detailed in the technical specification/ requirement.
- (iii) The Successful Bidder shall be responsible for warranty and maintenance services from licensors of products included in the systems.
- (iv) The Successful bidder shall ensure the maintenance of the acceptance criterion/ standards in respect of the systems during the warranty and maintenance period.

1.6 Performance Security

The successful bidder has to submit a Performance Bank Guarantee in the form of BG/FDR within 21 days from the issuance of LOA for a value of 10% of the contract price (inclusive of all taxes). The validity of the Performance Bank Guarantee shall be 60 days beyond the completion of all the contractual obligations including the comprehensive O&M Period.

In case the successful bidder fails to perform its complete contractual obligations during any point of the complete contractual completion period, the PBG may be forfeited.

2. Scope of Work and Technical Specification.

(Smart Class Room Work)

2.1 Scope of Work (“Service”)

“Smart Class” as a technology is being introduced in the

1. Government Girls Inter College, Rajpur Road, Dehradun
2. Government Inter College, Khurbura, Dehradun.
3. Government Girls Junior High School, Khurbura, Dehradun

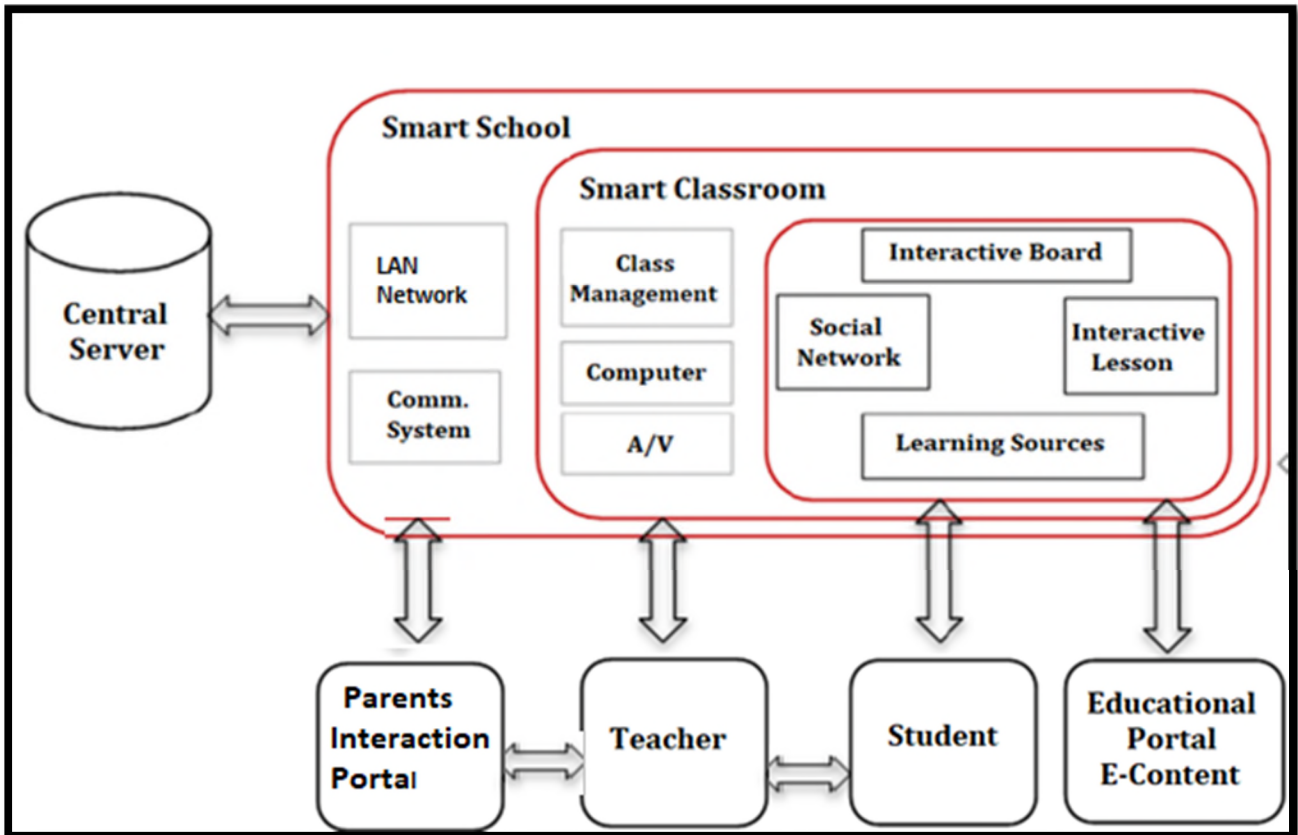
To improve the existing teaching-learning system, which can evoke a new learning environment in the classrooms of the Government Colleges in DEHRADUN.

2.2 Scope of Work

To overcome with these issues the following IT Components are recommended for Govt Girls Inter College, Rajpur Road, Govt Inter College, Khurbura and Govt Girls Junior High School Khurbura, to Smart School with following scope of work:-

- Multimedia PC
- Infrared Interactive Boards for classes
- Projector for classrooms
- Desktop Computer Lab for Students with Infrastructure (Workstations and Chairs)Printer
- Firewall & Security
- Bio-Metric Attendance System for Teachers and School Staffs
- Fire Extinguishers
- Display 55 inch Screen for Monitoring
- Centralized Server Centre with Networking
- Centralized UPS System
- Airconditioner
- Learning Management System
- Library Management System
- Internet Connectivity (Leased Line) & LAN Cable Items
- CCTV Surveillance
- Training/ Capacity Building of Teachers
- LAN Setup including Networking between all Computers
- Software & Network Management Systems.
- Network Racks with related Equipments
- Antivirus
- Create parents-school interaction portal and Mobile App
- Virtual Class
- Digital Contents

- School Management System (Student Admission Management, Teacher Management, Attendance Management, Fee Management, Certificate Management, Timetable Management, Health Management)



Smart School Functional Diagram

Improved Quality of Interaction of Student and Teachers and parents

- Parents – School
- Teacher- Teacher
- Student- Teacher
- Parents- Teacher

Benefit

Substantial Savings

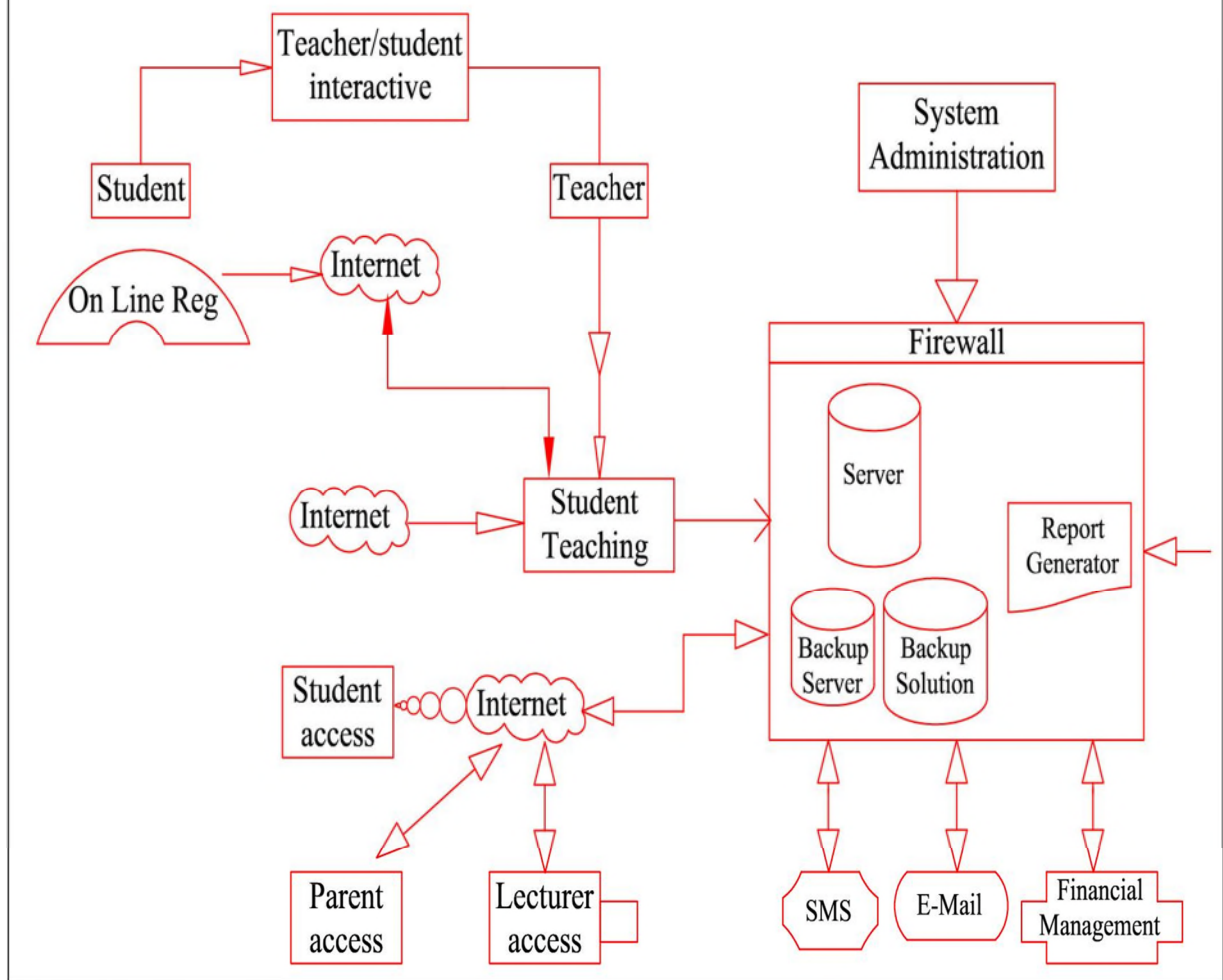
- Manpower
- Time
- Ultimately financial

Improved in working and process of information by teaching and learning skills.

- Faster Information Flow
- Responsive Decision Making
- Reduce Errors
- Minimum Duplication of Work

Benefits of Smart Education

Tentative Architecture of Smart Education



Architecture of Smart Education

2.3 Technical Specification

2.3.1 Smart Classroom Equipment

Multimedia PC		
S.No.	Features	Parameter
1	General specifications	
	Processor	intel i3 Equivalent with Minimum 2 dedicated cores with Min. 3.0 Ghz and 2 MB Cache or higher
2	Memory	
	RAM	4 GB DDR4 RAM 2400 Mhz or higher expandable to 32 GB with 2 DIMM Slot;
3	Mother Board	OEM Motherboard with OEM logo embossed on the motherboard (No Sticker)
4	Storage	
	Hard disk capacity	1 TB SATA,7200 RPM
5	Platform	
	Operating system	Pre-loaded Windows 10 (or latest) Professional 64 bit, licensed copy All Utilities and driver software, bundled in CD/DVD/Pen drive media
6	Input device	
	Pointer device	USB 2 Button Scroll Mouse (Same make as PC)
	Keyboard	USB keyboard (Same make as PC),
7	Communication	
	Ethernet	Integrated Gigabit (10/100/1000 NIC) LAN
	Wireless LAN	Not Required
8	Antivirus	Licensed Antivirus shall be provided for servers and workstations along with update subscription valid till CAMC period of the offered system with total protection.
9	Office Suite	MS Office 16 license or higher with preloaded
10	Power	65W external power supply with 89% efficiency or better
11	On Board HD integrated graphics and Audio Controller	Integrated HD Graphics ;High Definition Integrated Audio with Internal Speaker
12	For OEM	FCC, CE, RoHS, UL Certificate ISO 9001, 14001,20001,27001 for OEM
13	Ports/slots	
	Ports/slots	6 USB Ports , out of which atleast 4 USB 3.1 Gen 1 1 Microphone/Line in 1 headphone /Line out (1) VGA port; (1) HDMI Port (1) RJ-45 network connector, 1 Serial port

Infrared Interactive Boards (75 inches or better)		
(Technical Specification of Infrared Interactive Board (75 inches))		
S.no	ITEM	Specifications
1	Touch Functionality	IR sensor technology, 4point touch with 4point calibration , write, delete, perform, mouse function with a finger or pen
2	Durable Surface	Aluminum alloy Frame seamlessly combines with Green board for Projection Poly Vision Ceramic Steel Surface resilient to scratches, stain and fading, it is easy to fully erase the marking of dry erase marker ink with a dry cloth and antiglare for projection.
3	Support	Multi touch under windows by any opaque object software feature with popular teaching tools including pen, support record, multi document function colour filling control etc, support line, graphics, Drawing and can rub, cut, copy and delete any selected object.
4	Aspect Ratio	4:3 or better
5	Input	USB
6	Power Consumption	<2W
8	Screen Size	75" (inches) active screen area or Better
9	Accessories	5 Mtr USB Cable, Wall Mounting Brackets, 2 Pen, 1 teaching Pointer and Software CD, free lifetime online software upgrades, and support various operating systems.

Display 55 inch panel		
S.No	Type	Specification
1	55 inch Display panel	Supply of UHD 55 inches Display panel Resolution 3840 X 2160, having brightness from 250 to 2000 cd/m ² (HDR) etc. with following inputs- HDMI X 2, DP-1, DVI - 1, USB-1, LAN-1, RS232 – 1, Connectivity -WIFI, Miracast/Screen Share, Web Link, Certificates-UL,FCC,BIS.

UPS Online 10 KVA Technical Specification		
S.no	ITEM	Specification
1	Capacity	10 KVA
2	Wave Form	Pure Sine Wave
3	Backup	Minimum 60 min. for Schools with full load
4	Input	
A	Input Voltage Range	160 V AC to 300 V, AC Single Phase
B	Input Frequency Range	50 Hz +/- 5%
5	Protection	
A	All critical source and sensitive loads should have protection from transients, Advanced Electronic Protection for device safety for rectifier and Inverter, Built-in Overload protection, from short circuits (OVCD)	
6	Output	
A	Output Voltage	220 V AC /230VAC/240 VAC+/-1%
B	Frequency	50 Hz, +/- 0.05 Hz (Free running)
C	Over load capacity	125% for 10 minute
D	Crest factor	3:1 max
E	Power Factor	0.8 Lag or Higher
F	Manual and Auto Bypass Switch	Should be provided
7	Indicators	
A	Battery & Load level indicator	Should be Provided
B	On Line	Should be Provided
C	On Battery	Should be Provided
D	Replace battery	Should be Provided
E	Over Load	Should be Provided
F	Bypass	Should be Provided
G	Fault	Should be Provided
8	Miscellaneous	
A	Static Switch	Automatic Bi-directional should take care of 100% uninterrupted transfer
B	Overall efficiency	> 80%
C	Inverter efficiency	> 85%
9	Battery	
A	VAH	11000 minimum
B	Battery Type	Sealed Maintenance Free Tubular Batteries (Exide Power safe/ Numeric/ Amaron or equivalent)
C	Each Battery Voltage	12V each.
D	DC Bus Ripple	< 1% (With battery connected)
E	Battery recharge time from fully discharge condition to 100%	< =5 Hrs.
F	Battery Housing	Cabinet / Battery Rack
G	Cable Set	Should be Provided
10	Audible Alarm	
A	On Battery	Should be Provided
B	Low Battery	Should be Provided

C	Over Load	Should be Provided
D	Fault	Should be Provided
E	Mains failure	Should be Provided
11	Service Policy	Service should be given immediately for achieving maximum uptime.
12	Display	LCD Display for status/ fault information
13	Isolation Transformer	In built galvanic Isolation transformer at Input
14	Test Report	Should enclose ETDC/NTH/SAMEER/NISL Test Report along with the technical bid
15	Warranty	comprehensive onsite support during the contract period

UPS Online 20 KVA Technical Specification		
S.no	ITEM	Specification
1	Capacity	20 KVA
2	Wave Form	Pure Sine Wave
3	Backup	Minimum 60 min. for Schools with full load
4	Input	
A	Input Voltage Range	360 V AC to 480 V, AC Three Phase
B	Input Frequency Range	50 Hz +/- 5%
5	Protection	
A	All critical source and sensitive loads should have protection from transients, Advanced Electronic Protection for device safety for rectifier and Inverter, Built-in Overload protection, from short circuits (OVCD)	
6	Output	
A	Output Voltage	220 V AC /230VAC/240 VAC+/-1%
B	Frequency	50 Hz, +/- 0.05 Hz (Free running)
C	Over load capacity	125% for 10 minute
D	Crest factor	3:1 max
E	Power Factor	0.8 Lag or Higher
F	Manual and Auto Bypass Switch	Should be provided
7	Indicators	
A	Battery & Load level indicator	Should be Provided
B	On Line	Should be Provided
C	On Battery	Should be Provided
D	Replace battery	Should be Provided
E	Over Load	Should be Provided
F	Bypass	Should be Provided
G	Fault	Should be Provided
8	Miscellaneous	
A	Static Switch	Automatic Bi-directional should take care of 100% uninterrupted transfer
B	Overall efficiency	> 80%
C	Inverter efficiency	> 85%
9	Battery	
A	VAH	23000 minimum

B	Battery Type	Sealed Maintenance Free Tubular Batteries (Exide Power safe/ Numeric/ Amaron or equivalent)
C	Each Battery Voltage	12V each.
D	DC Bus Ripple	< 1% (With battery connected)
E	Battery recharge time from fully discharge condition to 100%	< =5 Hrs.
F	Battery Housing	Cabinet / Battery Rack
G	Cable Set	Should be Provided
10	Audible Alarm	
A	On Battery	Should be Provided
B	Low Battery	Should be Provided
C	Over Load	Should be Provided
D	Fault	Should be Provided
E	Mains failure	Should be Provided
11	Service Policy	Service should be given immediately for achieving maximum uptime.
12	Display	LCD Display for status/ fault information
13	Isolation Transformer	In built galvanic Isolation transformer at Input
14	Test Report	Should enclose ETDC/NTH/SAMEER/NISL Test Report along with the technical bid
15	Warranty	comprehensive onsite support during the contract period

DLP Projector		
S.NO	Parameter	Value
1	Display Technology	DLP Projector
2	Type	DLP CHIP
3	Native Resolution	XGA 1024x768 or better as per other industry standard resolution
4	Brightness	3000 lumens/Higher
5	Lamp Life	10000 hours/Higher
6	Contrast Ratio	20000:1/Higher
7	Input Connectors	Computer terminal, HDMI, Audio input terminal, RS232C, Audio output terminal, USB terminal Micro B
8	Power Supply	100 -240V, 50/60 Hz
9	Audio	3.5mm stereo mini jack
10	Keystone Correction	As per industry standards
11	Accessories	With 25 feet cable to connect computer or Laptop along with all accessories required for Projector excluding screen (1 HDMI Connector)
12	Zoom	As per industry standards
13	Image Size minimum	30 Inches or more
14	Accessories	Ceiling Mount kit for projector, Power cable HDMI cable, Audio cable & Video cable with required length, Manual & CD, Professional Laser pointer.
15	Image Size Maximum	300 inches or more

Biometric Attendance System (Technical Specification of Biometric attendance System)

S.No	Parameter	Value
1	Credential Support	Fingerprint, Face, Card
2	Module Type - Optical Card Type (CPM is Required)	Proximity (EM PROX) and Smart Card (Mifare/NFC and HID iCLASS), password based
3	Unique User Capacity	5000
4	Fingerprint Verification	1:1 and 1:N
5	Cards per User	1
6	Events Buffer/ No. of transactions	100000/Higher
7	Display	3.5" TFT Display with Touchscreen (For wall mounted), 2.5" TFT Display with touchscreen (For hand held) Dimensions
8	Dimensions	180(L)*134(W)*36(D) (For wall mounted), These dimensions are approximate, however the vendors should ensure that the width of handheld device is much lesser than the wall mounted one so that it can be held in one hand comfortably.
9	Buzzer	Yes (Note: For the handheld device, there should be provision to switch off the buzzer)
10	Power over Ethernet (PoE)	Yes
11	Communication	Ethernet, Wi-Fi and Mobile SIM card (2G, 3G, 4G GPRS)
12	USB	1 Port (Data Transfer and Wireless Connectivity)
13	External Reader Types	1 Port for Card, Finger, Card + Finger, UHF Reader
14	Exit Switch Port	Yes
15	External Reader Interfaces	RS-232 and Wiegand
16	External Reader Power Output	Internal 12VDC @ 0.5A or External
17	Auxiliary Output Port	Relay SPDT, Form C, 1A @ 30VDC
18	Auxiliary Input Port	Programmable NO, NC, Supervised
19	CPU	1GHz
20	Tamper Detection	Yes
21	Memory	256MB Flash and 512 MB DDR3 RAM or Higher
22	Input Power	12VDC@2A Environment Protection - IP65
23	Battery Backup	6 Hours or more
24	Identification Time	<=0.5 Secs or less
25	LCD Language	English & Hindi
26	Processor	32 bit high end Microprocessor or higher
27	Temperature	00C – 500C

S.No	Parameter	Value
28	Operating Humidity	20% - 80%
29	Database & Reports	All 26 nos. of Biometric Devices should be connected to one single and composite database as well as each school level. The related software applications should be able to generate MIS reports as per the requirement of School Authorities.
30	Biometric Devices	(26 nos. in total)

Desktop Computer Specifications		
S.No.	Features	Parameter
1	General specifications	
	Processor	intel i3 Equivalent with Minimum 2 dedicated cores with Min. 3.0 Ghz and 2 MB Cache or higher
2	Memory	
	RAM	4 GB DDR4 RAM 2400 Mhz or higher expandable to 32 GB with 2 DIMM Slot;
3	Mother Board	OEM Motherboard with OEM logo embossed on the motherboard (No Sticker)
4	Storage	
	Hard disk capacity	1 TB SATA,7200 RPM
5	Platform	
	Operating system	Pre-loaded Windows 10 (or latest) Professional 64 bit, licensed copy All Utilities and driver software, bundled in CD/DVD/media on pendrive
6	Display	
	Screen size	Min 18.5" LED TFT or higher from same OEM.
7	Input device	
	Pointer device	USB 2 Button Scroll Mouse (Same make as PC)
	Keyboard	USB keyboard (Same make as PC),
8	Communication	
	Ethernet	Integrated Gigabit (10/100/1000 NIC) LAN
	Wireless LAN	Not Required
9	Antivirus	Licensed Antivirus shall be provided for servers and workstations along with update subscription valid till CAMC period of the offered system with total protection.
10	Office Suite	MS Office 16 license or higher with preloaded
11	Power	65W external power supply with 89% efficiency or better
12	On Board HD integrated graphics and Audio Controller	Integrated HD Graphics ;High Definition Integrated Audio with Internal Speaker
13	For OEM	FCC, CE, RoHS, UL Certificate ISO 9001, 14001,20001,27001 for OEM
14	Ports/slots	

	Ports/slots	6 USB Ports , out of which atleast 4 USB 3.1 Gen 1 1 Microphone/Line in 1 headphone /Line out (1) VGA port; (1) HDMI Port (1) RJ-45 network connector, 1 Serial port
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UTP CAT 6 Cable (Approx. 305Mtr)

S. No	Parameters	Specifications
1	Features	<ol style="list-style-type: none"> 1. Category 6 Unshielded Twisted Pair 4 pair 100 Ohm shall be Compliant with ANSI/TIA/EIA-568 B.2-1 up to 600 Mhz. 2. Category 6 UTP cables shall extend between the work area location and its associated telecommunications closet and Consist of 4 pair, 23 AWG, UTP Non Plenum cable jacket. 3. The 4 pair Unshielded Twisted Pair cable should be UL Listed And ETL Certify. 4. Zero-Bit error throughput test as per IEEE standards verified By ETL. 5. The 4 pair Unshielded Twisted Pair cable should be RoHS Compliant
2	Mechanical Characteristics	<ol style="list-style-type: none"> 1. Construction: 4 twisted pairs separated by internal X shaped, 4 channel, full separator. Half shall not be accepted. 2. Conductor Solid Copper. 3. Insulator Polyethylene. 4. Delay Skew: 35 ns MAX. 5. Jacket PVC. 6. Attenuation : 22.8dB/100m at 250MHz, 29.4dB/100m at 400MHz, 39dB/100m at 600MHz.

CAT - 6 Information outlets (I/O) with face plate and flush PVC box

S. No	Parameters	Specifications
1	Features	<ol style="list-style-type: none"> 1. Surface Mount Face Plate & Box with CAT6 Work Area Data I/O Outlet (RJ45) adhering to ETL Verification program for Compliance with TIA568B.2-1. 2. Category 6, TIA568.B.2-1 – 600MHz 3. Information Outlet should be UL Listed and I/O box should Be RoHS Compliant. 4. 568A/B configuration. 5. Be constructed of high impact with color and icon options for Better visual identification. Integrated hinged dust cover Using collapsible angular spring loaded shuttered technology. 6. Face plate should be Single Gang square plate and Should have provision for Label
2	Material	ABS / UL 94 V-0
3	Port	One

Gigabit Fast Ethernet Switch

S. No	Parameters	Specifications
1	Port	16 & 24 & 48 ports 10/100/1000Base-T and 2 ports 1000 Base-X, 2 Giga SFP port
2	Forwarding Rate	Min 29 Mpps (16 port) /65.48 Mpps(24 port)/101.19 Mpps(48 port) or better
3	MAC address	16K
4	VLAN	256
5	Jumbo Frame	9 K
6	Features	<ol style="list-style-type: none"> 1. 802.3af and 802.3at Power Over Ethernet support. 2. 2 dedicated stacking ports per switch 3. Up to 40 Gbps Full-Duplex Stacking Bandwidth 4. Up to 6 units (288 Gigabit ports) per stack 5. Linear or Fault Tolerant Ring Stacking Topology 6. Virtual Stacking of up to 32 units 7. Integration of all the x Stack switches 8. Multi-Layer Access Control List (ACL) 9. Security : IP-MAC-Port Binding (IMPB), DHCP Server Screening , BPDU Attack Protection, ARP Spoofing Prevention 10. Rich AAA, access control features help administrators well-manage the visitors of the networks 11. Various attack prevention features and redundancy protocols provide highly reliable access networks. 12. Support SD card for portable software images and configuration.
7	VLAN Support	<ol style="list-style-type: none"> 1. 802.1Q VLAN 2. Private VLAN 3. Traffic Segmentation 4. VLAN protocol 5. GVRP 6. Q-in-Q
8	Management	<ol style="list-style-type: none"> 1. Web based management interface. 2. Through Telnet, HTTP and NMS. 3. Virtual LAN Management feature. 4. SNMP Version 1,2c. 5. Firmware upgrade via Web. 6. Remote Ping. 7. Port statistics.
9	Quality of Service	<ol style="list-style-type: none"> 1. 4 hardware queues 2. Strict priority, weighted round robin Priority Queue.
10	Switch must support	<p>IP v4 – HSRP/ VRRP IP v6 - HSRP v6/ VRRP v6 DHCP Relay V4 and V6 8K Multicast route Minimum 32K Route entries for IPv4 and IPv6 routes Virtual routing functionality from day 1 50K no. of MAC addresses 4000 VLANs Private VLAN or equivalent All ports should be PoE/PoE+ All ports should be manageable</p>

S. No	Parameters	Specifications
		MLD v1/v2 IGMP v1/v2/v3 & up to 1000 IGMP groups IGMP snooping & IGMP filtering Link Aggregation Control Protocol (LACP) as per IEEE 802.3ad Switch should support PTP, FTP/TFTP EN 55022A Class A, VCCI Class A, certified Should support routing protocol: IP v4 - Static routing, OSPF v2, BGPv4, IS-IS IP v6 - BGP, OSPF v3 Bidirectional Forwarding detection Switch must support spine: leaf topology based on VXLAN Create layer 2 domains

Patch Cord Cat 6 UTP 1m and 2m

S.No	Type	Unshielded Twisted Pair, Category 6, TIA / EIA 568-B.2
1	Conductor	24 AWG 7 / 32, stranded copper
2	Length	7-feet for workstation and 3feet for Jack panel / equipment
3	Plug Protection	Matching colored snag-less, elastomer polyolefin boot
4	Category	Category 6
5	Housing	Clear polycarbonate
6	Terminals	Phosphor Bronze, 50 micron gold plating over selected area and gold flash over remainder, over 100 micron nickel under plate
7	Load bar	PBT polyester
8	Jacket	PVC
9	Insulation	Flame Retardant Polyethylene

Patch Panel 24 Port CAT 6 fully loaded

Sr No	Items	Description
1	Identification	ID plate, PC, Transparent color with paper
2	Panel	SPCC. 1.6 mm thickness with Black (RAL 9005) Colour painted
3	RJ45 Jack	Housing: PBT+ Glass Fiber UL94V-0
		Contact Bracket: PBT+Glass Fiber, UL94V-0, Black Color
4	RJ45 Jack Contact	Material: Phosphor Bronze with Nickel Plated
		Finish: 50 micro-inches Gold plated on plug contact area
5	IDC	Housing: PC, UL94V-0
		Terminal: phosphor Bronze with Tin plated
6	Jack Bracket Set	ABS

7	Support Bar	SPCC, 1.6 mm thickness with Black (RAL 9005) Colour painted
8	PCB	FR4, UL 94V-0

Firewall UTM with 03 years warranty and Security Subscription

S.No	Type	Description
1	Firewall	Layer8 (User identity)
2	Copper GBE Port	Min 6+2 SFP or better
3	Concurrent Sessions	Min 8200000 or better
4	Firewall throughput	Min.16Gbps or better
5	VPN throughput	Min. 1.45 Gbps
6	IPS Throughput	Min. 2.7 GBPS or better
7	Network Protocols	DHCP server, DHCP relay, Static IP, DDNS, Spanning Tree Protocol (STP) & Layer Tunnelling Protocol (LTP) etc or better protocol
8	Routing Protocol	Static & RIP v1, v2 or better protocol
9	NAT Protocol	Port Address Translation (PAT), Network Address Port Translation (NAPT) & Session Initiation Protocol Application Layer Gateway (SIP ALG) etc.
10	Security	Stateful packet inspection (SPI) firewall, MAC-based access control, IP/MAC binding, wireless profiles, Static URL blocking, keyword blocking, approved URL, HTTPS, username/password and Port-based RADIUS authentication
11	VLAN support	Port-based and 802.1q tag-based VLANs, inter-VLAN routing
12	Prioritization types	802.1p port-based priority on LAN port, application-based priority on WAN port
13	Web user interface	Browser-based device manager (HTTP/HTTPS) Standards: IEEE 802.11n, 802.11g, 802.11b, 802.3, 802.3u, IPv4 (RFC 791), IPv6 (RFC 2460), 802.1X, 802.1Q, 802.11i, 802.11e, Routing Information Protocol (RIP) v1 (RFC 1058) and RIP v2 (RFC 1723) etc or better protocol
14	Certification	CB,UL,CE,FCC Class A, ISED, VCCI,RCM,CCC,KC,BIS

Network Equipment Rack

S.No	Type	Description
1	Type	19" 9U Rack wall mount & 19" 27U/9U Rack floor mount Heavy Duty Extruded Aluminium Frame for rigidity Top cover with FHU provision Top & Bottom cover with cable entry gland plates Heavy Duty Top and Bottom frame of MS Two pairs of 19" mounting angles with 'U' marking Depth support channels - 3 pairs with an overall weight carrying Capacity of equipment's

		All racks must be lockable
2	Power Distribution Unit	Electronically controlled circuits for Surge & Spike protection, LED readout for the total current being drawn AC isolated input to Ground & Output to Ground In the form of horizontal 19-inch rack mountable power distribution box in 1U/2U heights or Vertically at the rear, power distribution channel.
3	FAN & FANS Tray	Fan Housing Unit 2/4 Fan Position (Top Mounted) (HA) Monitored - Thermostat based - The Fans should switch on based on the Temperature within the rack. The temperature setting should be factory settable. This unit should also include - humidity & temperature sensor
4	Metal	Aluminium extruded profile
5	Cooling	Roof mounted fan housing units with exhaust axial type fans of 90 CFM capacity or 19-inch rack mounted fan trays with 2/4/6 fan capacity to take care of heat pockets at specific location. These units can be mounted anywhere all along the height of the cabinet
6	Shelves	a) Standard ventilated shelf for equipment upto 35 Kgs. b) Heavy duty plain shelves for equipment upto 75kgs.
7	Slide out shelves	For equipment which need to be serviced at regular intervals and need to be drawn out frequently.
8	Castors	For easy movements of the cabinet, provided with foot operated brakes (applicable for floor mount rack)
9	Front panel mounting hardware	A set of hardware comprises of cage nut M6, captive screw M6 and plastic cup washer provided in a packet of 20 sets are required to bold rack mount equipment onto the cabinet.
10	Horizontal Cable management panel	A combination of a pair of wire rungs mounted on a 19- inch panel in 1U/2U height provides very effective cable path without sharp bends there by ensuring no loss of data during transmission.
11	Window supports	Used on the reducing cable channel is very effective in open cable management system. Window supports prevents damage to large bunches of cable due to the radius bends on the periphery. Point contact of the wires on the resting point of the reducing channel are flattened by the smooth contours of this support
12	Earthing kit	Copper Earthing bars and braids are provided for achieving electrical ground.

Day/Night Bullet/Dome IP Camera

S.No	Type	Description
1	Type	Dome/Bullet
2	Recording	Video and Audio both
3	Image Device	1/4" or 1/3" CCD/CMOS sensor or better
4	Edge Storage	Built in SD card slot with support up to 128 GB SD card
5	Lens	Megapixel Lens with remote zoom and focus, Auto/P/DC Iris, lens f = 3 mm to 12 mm
6	Day & Night Operation	Yes with IR Cut Filter
7	Minimum Illumination	Color 0.00 lux
8	Image Resolution	2 MP or better
9	Compression	H.265 , MJPEG or better
10	Frame Rate and Resolution	2MP (1920 X 1080) @ 30 FPS

11	Zoom	3x optical Zoom , 10x Digital Zoom
12	Video Streams	Triple Stream supportable
13	Protocols	IP v4/v6, TCP/IP, UDP, RTP, RTSP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, PPOE, UPnP, IGMP, SNMP, QoS, ONVIF
14	Security	HTTPS / IP Filter / IEEE 802.1X
15	Power	PoE / POE+/12 V DC /24 V AC
16	Certification	UL, CE, FCC, RoHS
17	ONVIF	ONVIF Steering Committee Member
18	NVR	16 and 8 channel with 1 TB HDD
19	Supported Web Browser	Internet Explorer (7.0+)/Firefox/Safari/Chrome/Mozilla Firefox or similar or higher browser

Server

S.No	Type	Description
1	CPU	Intel Xeon E3-1220 v5 (3.3 GHz/8MB)
2	Memory	16 GB DDR 4 RAM ECC Upgradable minimum 4 DIMMS or better
3	Chassis Type	Rack mount
4	Hard Drives	1x1 TB SATA (3.5 inch) 7.2K RPM or higher hot swappable Hard Disk upto 4 drives Minimum, RAID inbuilt on board configuration.
5	Power supply	Redundant Power Supply and inbuilt cooling system
6	Network Adapter	Dual Integrated 10/100/1000 Mbps ports
7	Ports	At least 2 free PCIE I/O slots, 4 USB ports
8	Monitor Display	18.5 LED TFT
9	Antivirus	Licensed Antivirus shall be provided for servers and workstations along with update subscription valid till CAMC period of the offered system
10	Operating system	Microsoft Windows Server Standard Latest Edition with licensed and media kit CD

Fire Extinguisher

S.No	Type	Description
1	Capacity	9Kg or more
2	Jet Range (In Mtrs.)	3 or more
3	Type	A B C Type Dry Powder, Gas Fire Extinguisher
4	BIS Standard: Conforming to IS	15683:2006 and ISI marked
5	Working Pressure & Expelling Media	Charged with dry nitrogen gas at 12-15 Bar
6	Dry Chemical Powder (DCP)	ABC type DCP conforming to IS-14609: latest revision
7	Body of Fire Extinguisher	Cylindrical body made of Mild Steel Sheet conforming to IS 513: latest revision
8	Siphon Tube & discharge hose rest holder	Siphon tube shall be made of metal & discharge hose rest holder shall be of good quality & suitable type Provision: Wall mounting facility
9	Manufacturing date	Manufacturing date shall be punched at bottom ring of the extinguisher

10	Certificates to be supplied with materials	1) A certified copy of BIS: 15683:2006 license certificate of the manufacturer, 2) Cast analysis certificate for cylinder material, 3) Hydraulic Test certificate of the extinguishers, 4) Testing certificate for ABC type DCP conforming to IS-14609: latest revision, 5) Guarantee certificate at least for 03 years etc.
11	Inspection	Pre Delivery Inspection (PDI) of the materials will be carried out at site

Antivirus

S.No	Type	Description
1	Antivirus	Anti-Virus should be able to provide total protection, including comprehensive protection for the systems and should be able to guard against the latest threats – zero day threat mitigation, block viruses, malware, ransomware, spyware, unwanted programs. It should be Total Security (For systems & Internet Security addressing Threats and providing Remedies) with periodical updates for a period of 3 years.

Internet Connectivity (Leased Line)

S.No	Type	Description
1	Bandwidth High Internet Leased Line	10 Mbps (1:1)
1	Downloading & Uploading Speed	Minimum 8 Mbps or Higher
2	Post FUP Speed	8 Mbps or Higher

Air conditioner 1.5 Ton

S.No	Type	Description
1	Energy Rating	5 Star
	Power Input	1500 W
	Type	Split
	Capacity	1.5 Ton
	Dry Mode	Yes
	Dehumidification	Yes
	Turbo Mode	Yes
	Other Modes	Auto Mode, Fan Mode, Fast cool, Comfort cool, 2 step cooling mode, Single User Mode, Quiet Mode
	Sleep Mode	Yes
	Cool Mode	Yes

All in one laser Printer

S.No	Type	Description
1	All in one laser Printer	All in one Printer (Multifunction laser)– Copy, Print, Scan speed up to 28 PPM, 4800x 600 DPI (OUTPUT QUALITY-600X600), RAM-128MB, Processor 600 mhz; Automatic duplex printing; Standard input capacity of 150Sheets, Duty cycle- 10000 pages or more. USB & LAN Port Connectivity should be available.

Learning management system

S No	Item Description
1	Learning Management System, SCORM Compliant, Enterprise License, MIS for courses being done, Facility to add / import SCORM courses as required.
2	Student and Teacher Licenses
4	Software's (Application & NMS)

NOTE: The successful bidder has to approve the makes of all the equipments of the IT, bandwidth etc. from the Authority before procurement of the same.

Procurement, Customization and Deployment of Software and content

To procure, supply and install all the content for smart education based on Uttarakhand board for Std. VI to Std. XII for all subjects. The content shall be approved by the concerned department of the Government of Uttarakhand, before Go-Live.

- To provide Computer Educational Software, Spoken English educational software and Internet educational software.
- All software and content updates will be done daily (As applicable). For this purpose, the system should be online. The whole system is recommended to work on a Centralized model, where education content is available on the Central Server as well as Local Computer in schools and content Updation is done online in real time.
- In case of, and, as and when there is any change in syllabus prescribed by the Uttarakhand State Board the digital content has to be changed / updated accordingly.
- Procure the e-content for all subjects from Class VI to XII.
- E-Library access to all Schools with Video Lectures.
- Provide Digital Study Material for Competitive Exam along with Guidance of Subject Expert. No subject experts are required. The minimum specific competitive exams are Engineering, Medical, Defence, Railway, Banks, PSUs, State Competitive Exams etc.

E-Content Detail for Class VI to XII

S.No	Subject	Value	Classes
1	Hindi	e-Content in Hindi & English Language	For Classes VI, VII, VIII, IX, X, XI and XII(Maths, Science, Art, Commerce, Computer, English, Social science) as applicable
2	English	e-Content in Hindi & English Language	
3	Science	e-Content in Hindi & English Language	
4	Social Science	e-Content in Hindi & English Language	
5	Mathematics	e-Content in Hindi & English Language	
6	Sanskrit	e-Content in Hindi, English and Sanskrit Language	
7	Quizzes & Interactive Q&As	e-Content in Hindi & English Language	

E-Content

E –Content will include: Text, pictures, sound, Video, Animations and Presentation.

Text is most important element of any e-content. Computers of any level can help create text files, though Word Pad and MS WORD to create formatted text. One can save text files in the following format: .txt .doc .htm .pdf. The no. of hours of content per subject/class should be minimum 30 minutes.

Pictures – Photographs

One could store pictures in various formats: .bmp .gif .jpg .png. “.bmp” is an uncompressed format that stores pictures in millions of colours. This is the most popular format for exchanging pictures between different programmes. “.gif” is a compressed format that stores pictures in 256 colours. This is a very popular format for displaying pictures in web pages. “.jpg” is a glossy format that stores pictures in millions of colour in very small file size, thereby making it most popular format for E-content.

Sound

There are various formats of audio that can be used a part of e-content. .wav .au .mp3 .mid “.wav” is most popular format of audio deployed in E-content. This offers multi-track audio both in uncompressed, compressed and sampling rates. “.au” is a compressed format of storing audio from Sun Microsystems. “.mp3” is a highly compressed format for storing voice and music. This is perhaps the most popular format storing and exchanging digital music today. “.mid” is a popular format of storing music.

Video

Video is perhaps the most sensational medium in the E- content domain. With recent breakthrough in compression and streaming technologies, video has emerged as feasible E-content elements. Like other elements, digital video also comes in many formats: .avi .mov .mpg .rm .wmv .flv “.avi” is a very popular format of storing digital video in computers. It stores both in compressed and uncompressed forms. “.mpg” is a lossy and compressed format of storing video. “.wmv” is the latest offering from Microsoft for storing highly compressed and streaming video in Windows. “.flv” is a recent entry from Macromedia to deal with video content.

Animation (2D and 3D Animations are Powerful Communications.)

New compression technologies helped animations become a regular part of all E-content. Animations come in different formats: .flc .swf .gif “.flc” is an old 2D animation format from AutoDesk. “.swf” is a recent format from Macromedia to store Vector based 2D animations. Some programmes also render 3D animations in this popular format. “.gif” can also animated frames.

E-Library

The Digital Library is used to create a support to academic studies and where the intention of documentation of historical memory prevails. Actually, as is clearly seen from the international account which is widely summarised below, the two aims are complementary and the problem shifts to the choice to be made at the start, so that the Digital Library can be developed in a coherent and uniform way in both directions. E-library will Include- 300 Digitized textbooks, along with 500 E-books of related Subjects, 100 Video Lectures & 300 Audio Lectures.

Smart Class Mechanism

Smart Classes are the new thing. Advancement in technology has made it possible that the students get the best options to learn from smart classes are classrooms that focus on learning by using technology and gadgets. These classes will include computer systems, software designed for better learning, audience response technology, networking, and audio/visual equipment's. Students are exposed to a new level of learning process as compared to the age old method of a teacher explaining concepts either by verbal or written communication.

Smart classrooms include videos and presentations, which includes visual and auditory stimulation for the students. The info-graphics, like pie charts, graphs as well as notes, are saved in the system. Thus it doesn't require the teacher to draw these figures or write down notes for students. Thus it saves a lot of time. Learning becomes a much easier process.

Both the students and teachers will have less pressure on them. Smart boards have most of the information stored in, based on the syllabus that is set for them. The teachers can modify some parts and make additions. The students find it easier to remember topics while being shown visually appealing scenes.

Question Bank

Question Bank gives teachers the ability to customize evaluation tools for their teaching subject and FAQ (Frequently Asked Questions). There are questions at four grade levels: Intermediate and Secondary. At each grade level, the questions will be categorized subject wise. All files are in online mode (.html), PDF and MS Word (.doc) file format.

The Model series of Test Papers of various Competitive Exams (Like IIT, PMT, NDA etc.) will also be available for the Students for the preparation of Competitive Exams.

Smart Class Solution

Smart Class is a comprehensive solution designed to assist teachers in meeting with their day to day classroom challenges and enhancing students' academic performance with simple, practical and meaningful use of technology. Smart Class provides teachers with instant access to multimedia content and instruction materials mapped exactly to the specific curriculum guidelines for use in class. It also

enables teachers to instantly assess and evaluate the learning achieved by their students in class with innovative use of technology.

Smart Class helps teachers to ensure that every child in the class is learning, given the wide diversity of learning styles in the classroom. It is also highly efficient in maintaining students' interest and engagement in learning inside the classroom. Smart Class simplifies the problems of teaching, abstract curriculum concepts that are difficult for students to visualize or relate to, through the provision of three-dimensional, interactive multimedia modules.

Classroom will be equipped with Hardware Equipment such as Projector, Interactive Smart Board, White Board, VC Systems Speakers, Wireless Mice, and CCTV Camera along with Internet Connectivity, which are essential for establishing Smart Class. Each smart Class will be integrated with a local server of school, which will help in any kind of Update /addition centrally where the Content are Stored & Updated as per NCERT Syllabus, UK Board Syllabus and CBSE syllabus contents any other as per requirement will also be included for students.

The E-Content & E- Library will be deployed on the the Centre Server or within Nodal School will be made available to the Schools. Once the connectivity & infrastructure is established, the e-Content will be accessed by the teachers for their respective Lectures which are captured on real or near real time basis which can be used by the Students for their Future References.

Training/ Capacity Building of Teacher

The teachers are to be trained through a trainer to be made available by the service provider to effectively use the hardware and software of the smart class .10teachers per College.

A training program will have to be prepared with training manual, Do's and Don'ts etc. The training shall include comprehensive use & operation of the system and effective use of the digital content. The teachers 'user manual should be made available to all trainee teachers in Hindi and English.

Qualification required for the Trainer: Should be a BCA/MCA with three years of relevant experience in training for similar modules.

Training Schedule: The training needs to commence 7 days prior to the go live period and a total no of 400 hours of training spread across 1 year needs to be imparted as per details below:

Intensive Training: Month 1: 1College x 2 hours x 3 days a week x 4 weeks

i.e. $1 \times 2 \times 3 \times 4 = 24$ hours

Training: Month 2: 1College x 2 hours x 2 days a week x 4 weeks

i.e. $1 \times 2 \times 2 \times 4 = 24$ hours

Place of Training: - Training should be held at Government Girls Inter College, Rajpur Road, Dehradun 2. Government Inter College, Khurbura, Dehradun. 3. Government Girls Junior High School, Khurbura, Dehradun. The cost of Training should be borne by Bidder.

NOTE: The above is a tentative training schedule and may be revised/adjusted as per the requirements of the Colleges. Approval/Details of the same shall be provided later after the submission of the schedules by the Successful Bidder.

Help Desk Service

Manpower for Operation, Management & Technical Support:

The successful bidder will provide help desk services which will serve as a Single Point of Contact (SPOC) for all Hardware /Software related incidents and service requests.

Apart from normal means of reporting, a toll free no for reporting any smart class issues.

The Help Desk shall undertake the following activities:

- Log issues /complaints related to issues within the scope of work and issue an ID number against the complaint. □Track each issue /complaint to resolution.
- Once resolved provide feedback to the College principal.
- Creation of knowledge base on frequently asked questions (FAQs)to aid users (teachers)
- On the request of the Education department or DEHRADUN Smart City Limited Office, provide detailed reports of all incidents raised by users and resolution time

The contractual terms of service shall be monitored on a monthly basis as per the individual service requirements. However, if the performance of the system/ services is degraded significantly at any given point of time during the contract and if the immediate measures are not implemented and issues are not rectified to the complete satisfaction of the AUTHORITY or an agency designated by it, then the AUTHORITY shall have the right to take appropriate punitive actions and have the situation rectified.

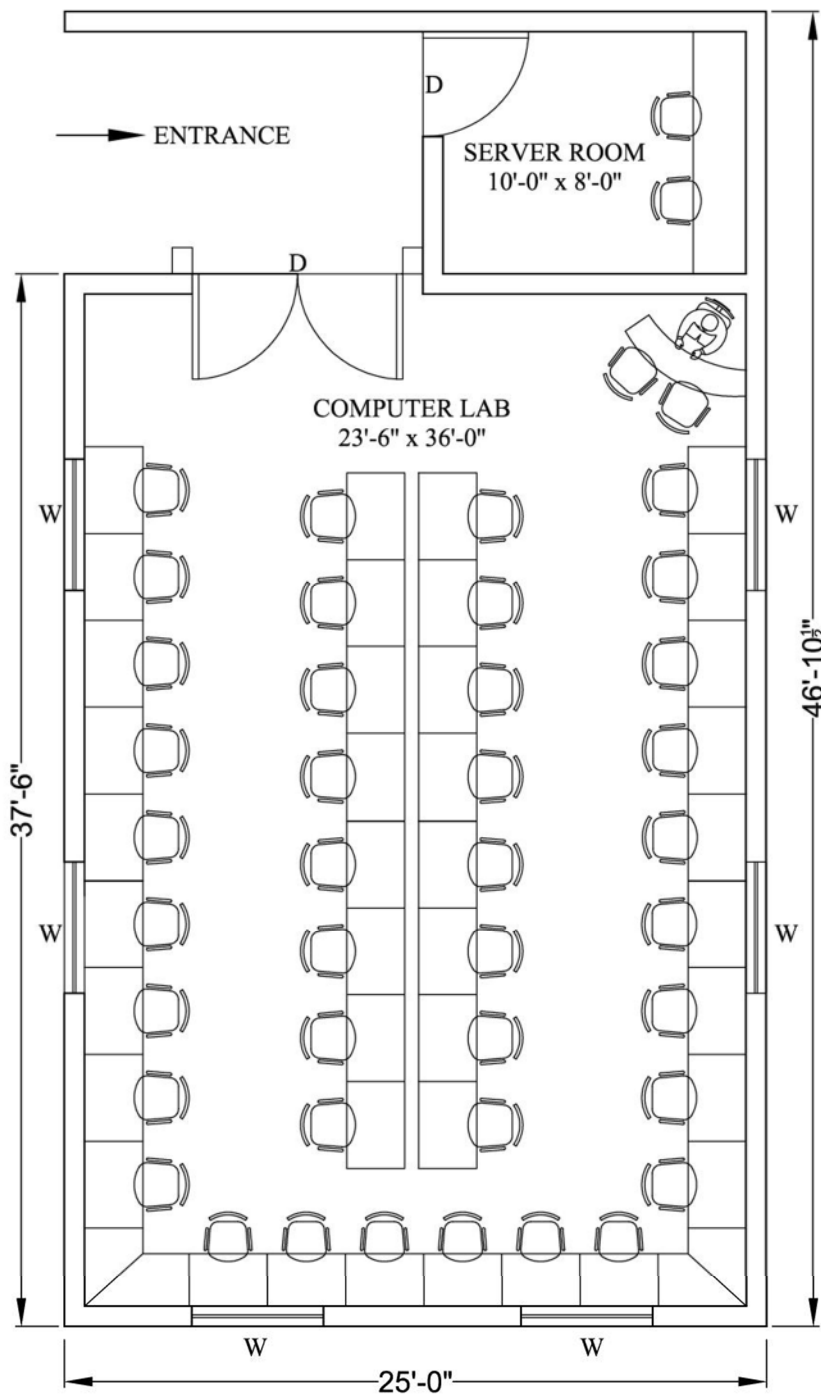
Onsite comprehensive (including all Hardware, Software, network cabling for all types of defects and problems) maintenance services shall be provided by the Supplier during the period of warranty of twelve months from completion of work. The performance of the system shall be measured and applicable penalties shall be calculated and imposed on the bidder, in case the performance is below the required thresholds.

Qualification & Experience required for the Help Desk Personnel: BCA will be preferred with minimum two years of relevant experience in similar capacity.

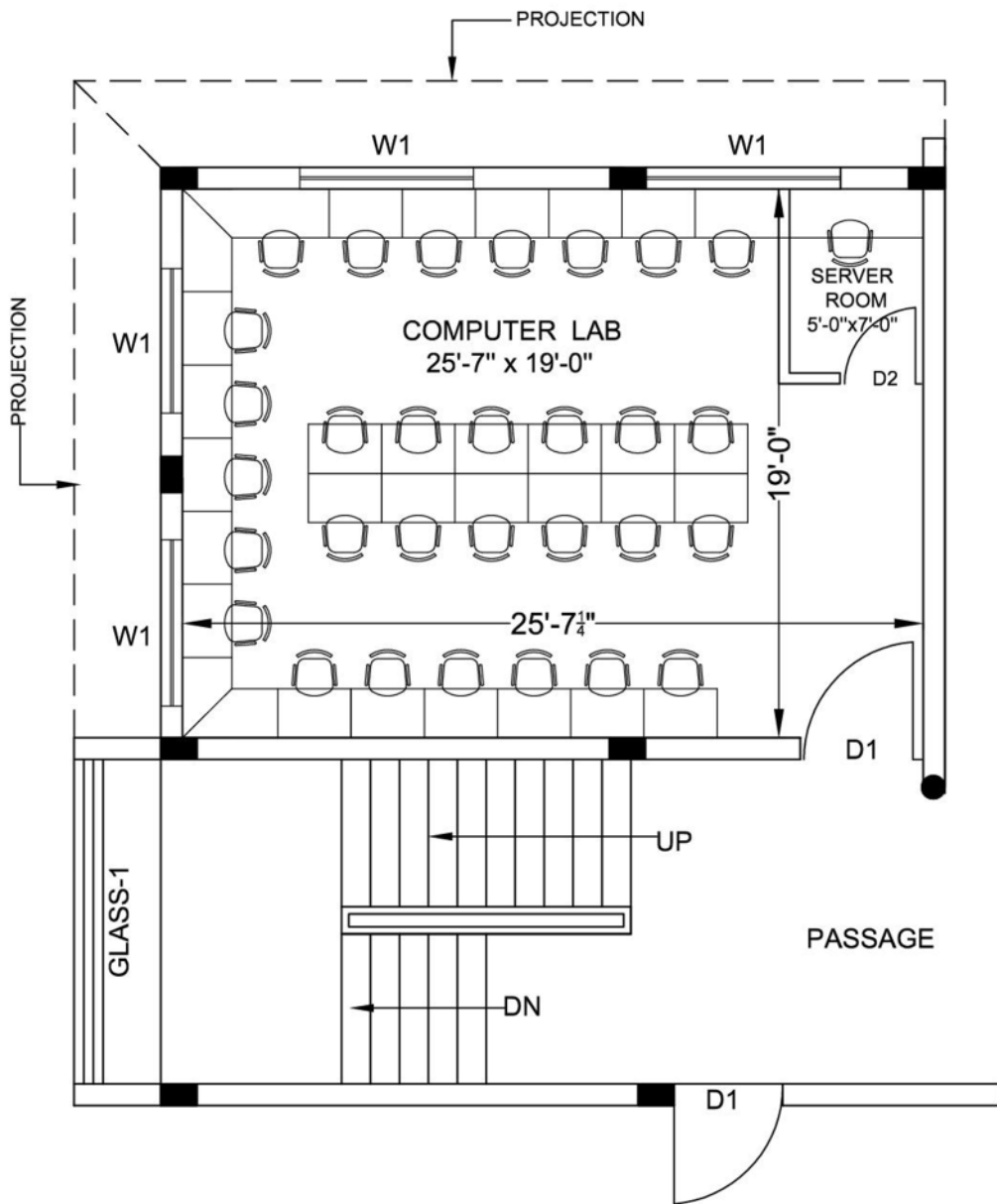
2.4 Scope of Services

The bidder shall provide the following services for Procurement, Installation and Commissioning of 26 Smart classrooms in 1. Government Girls Inter College, Rajpur Road, Dehradun 2. Government Inter College, Khurbura, Dehradun. 3. Government Girls Junior High School, Khurbura, Dehradun and its operation and maintenance for three years (CAMC) with Insurance which will include training and hand holding. Broadly the Scope of Work (not limited to) are as follows.

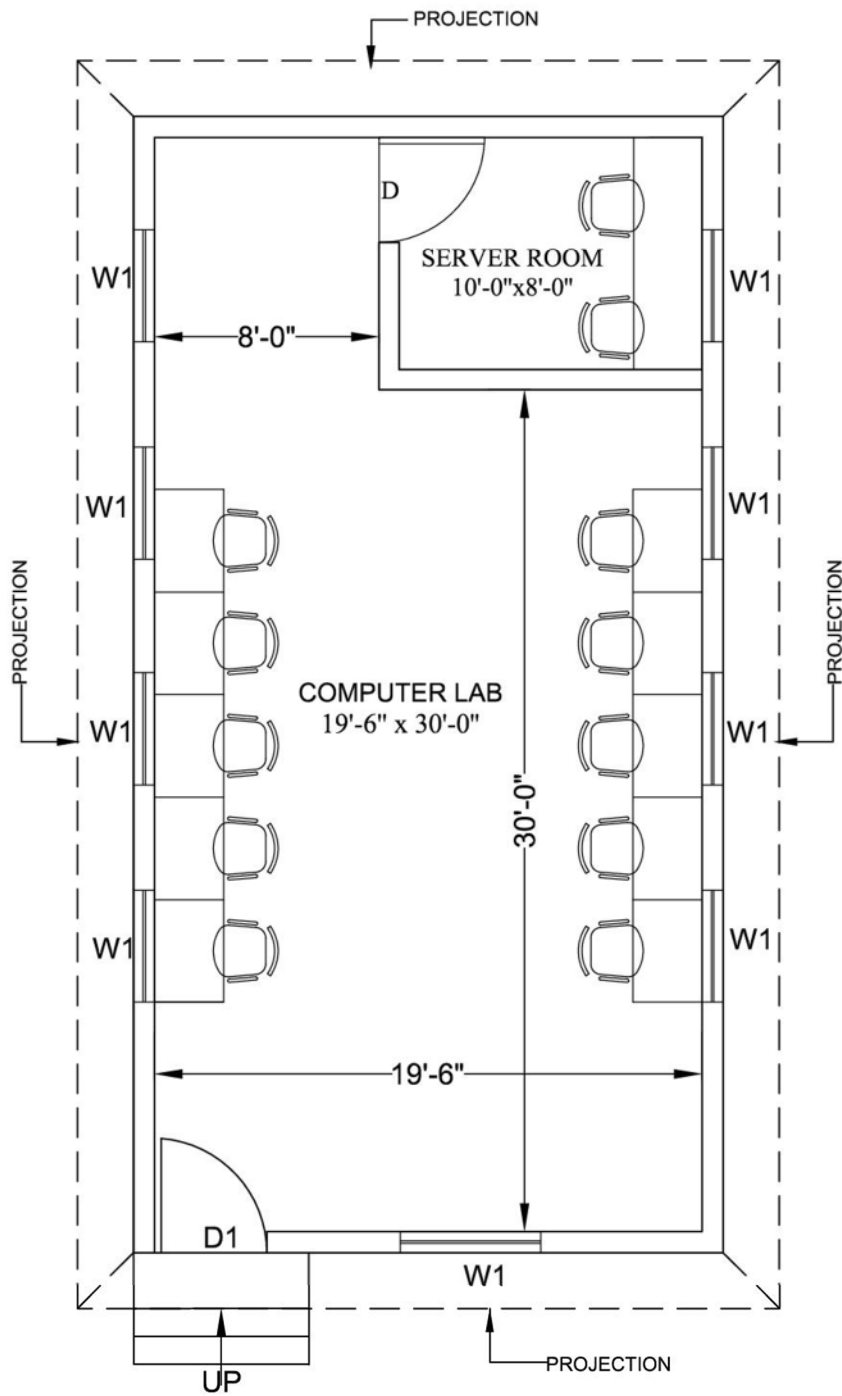
- Procurement and installation of Hardware, Networking and other Equipment.
- Procurement, Customization and Deployment of Software and making go live
- Management and Maintenance of Hardware and Software including content updation and the smart class system should be such that it can be used in offline mode (i.e. In absence of internet.)
- Training and Hand holding along with Help Desk Services
- Value Added Services: CCTV monitoring
- Computer Lab of Desktops with Workstation & chairs
- Learning Management System
- Library Management System
- Create parents-school interaction portal and Mobile App
- Virtual Class
- Digital Contents
- School Management System (Student Admission Management, Teacher Management, Attendance Management, Fee Management, Certificate Management, Timetable Management, Health Management)



**LAYOUT PLAN OF COMPUTER LAB AT
GOVT.GIRLS INTER COLLEGE RAJPUR ROAD DEHRADUN**



**LAYOUT PLAN OF COMPUTER LAB AT
GOVT. INTER COLLEGE KHURBURA DEHRADUN**



**LAYOUT PLAN OF COMPUTER LAB AT
GOVT.GIRLS JUNIOR HIGH SCHOOL KHURBURA DEHRADUN**

2.4.1 Procurement and installation of Hardware, Networking and other Equipment.

- To Supply Hardware and connected accessories (As per minimum specifications given in this Tender Document, although bidder is free to provide higher configuration.
- The bidder shall provide the 'structured' cabling as per the industry standards where ever required.
- The bidder would also need to provide backup power through UPS in order to meet the requirements. In case additional hardware or upgrade is required in order to maintain the service levels, then bidder shall procure upgrade with consent and additional cost to DEHRADUN SMART CITY LIMITED.

2.4.2 Procurement, Customization and Deployment of Software and content.

- To procure and install all the software required for the computer systems, namely, operating system, database, application software, etc.
- All licenses procured by the bidder under this project will be in the name of the DEHRADUN SMART CITY LIMITED
- The bidder will also be responsible to keep track of the version control of the software applications.

2.4.3 Management and Maintenance of Hardware and Software

- The bidder will be responsible for Maintenance of all the Hardware and Software procured and installed as part of the project for three years after the issuance of "Certificate of Completion of Project".
- The bidder will be required to provide the Technical Support and training and hand holding for the smart class room systems.
- Resolution of all complaints, bugs & issues including improvements in presentation and/or functionality to be done within specified duration as per agreed resolution time as per contract.
- Any issues in the hardware and software will be resolved promptly as per agreed timelines as per contract. An escalation matrix will be prepared and shared with DEHRADUN SMART CITY LIMITED for resolution of all issues.

2.4.4 – Bill of Material: Please refer to the Price Bid BOQ.

Material:

- Uttarakhand Procurement Act 2017 and CPWD specifications as circulated by Uttarakhand state government which has been detailed in particular specifications of the tender document is followed
- Materials to be used shall conform to IS specifications which have been detailed in Particular Specifications.

4. Training and Capacity Building

The basic approach of Training & Capacity Building is to create effective implementation of the Smart classes and its operational efficiency of teaching in Schools. The DSCL involves many officials and School staffs. A baseline data collection has been taken through initial survey of schools and discussion with Principals /staff of Schools was fruitful to obtain the actual situation of the schools and feasibility status for establishing smart classes.

On the basis of the findings of the initial assessment, the training programmes and training schedule of School officials has been prepared for handhold training and Capacity Building component. The primary focus shall be on the institutional development aspect of the education system.

a. Providing Training to Subject Teachers and Students

Objectives of Training

The trainee becomes capable of using computer for normal operation & installing, operating & using the software.

- The teachers understands the manner in which the topic is dealt with the answer questions/queries from students on the topics.
- The teachers should be able to make his/her own lesson plans using the School Management software developed by the Bidder and using the Internet facility available in the school.
- The training should be hands on with the help of computers and software (educational) developed.
- The Training should include presentation/discussion on the topics by subject experts also.
- A teacher manual should be made available to all the trainees.
- Expected set of questions/answers should be provided at the end of the training.

b. Training Delivery

The training shall be conducted at the District Headquarters/Office of DSCL/ School and duration of training is as follows:

Induction Training:

First time induction training should be provided to all teachers/selected teachers in the selected schools. The average number of teachers to be trained will not exceed 12 Nos per training.

- **Total number of training days- 1 @ Minimum of 8 hours in a day.**
- **The training must cover –**
 - ❖ Introduction Session Computer Overview (Parts of PCs/ digital devices/ etc.).
 - ❖ Operating Systems Office Suit.
 - ❖ Internet/ Email/browsing etc.
 - ❖ All Digital Contents, Applications and Softwares etc.
 - ❖ Classroom learning and teaching tools- Projectors/collaborating networking etc.
 - ❖ Use of ICT materials in teaching and learning.

- ❖ Assessment and Feedback.

Refresher Training:

Refresher Training in use of ICT in teaching should be provided to all teachers/selected teachers in the selected schools.

Total number of training days- 1 @ Minimum of 8 hours in a day.

- **The training must cover –**

- ❖ Working with multimedia
- ❖ Making and Editing movies, pictures, images. Etc.
- ❖ Overview of web applications
- ❖ Internet and e communications
- ❖ Overview of Management Information System
- ❖ Computer technology and security
- ❖ Search optimization (search engines and how to take out relevant content)
- ❖ Classroom learning and teaching tools.
- ❖ Overview of personalized learning.
- ❖ Assessment and evaluation.

Note: Above topics may change during the project period as per requirement and any guideline received from Central or State government.

Training Module

The agency will have to get their training module ratified by the Technical Advisory Panel of the Dehradun Smart City Limited or agency authorized by DSCL.

- DSCL/School will provide training space for the training of teachers. Necessary infrastructure from Schools such as computing equipments would be used for the training.

3.3 Software Requirements

A software environment favouring a pedagogy of learning which promotes active learning, participatory and collaborative practices and sharing of knowledge is essential to nurture a creative society. Free and Open Source Software – operating system and software applications will be preferred in order to expand the range of learning, creation and sharing.

A wide variety of software applications and tools, going well beyond an office suite is required to meet the demands of a broad based ICT literacy and ICT enabled teaching learning programme. Graphics and animation, desktop publishing, web designing, databases and programming tools have the potential of increasing the range of skills and conceptual knowledge of the students and teachers.

Creation and widespread dissemination of software compilations, including specialised software for different subjects, simulations, virtual laboratories, modelling and problem solving applications will be encouraged. These will be distinct from multimedia packages and digital learning resources.

Software's to be provided at School for enhanced Teaching and Learning experience

Apart from the above mentioned Hardware for the Digital Classroom, IT Labs and Digital Libraries includes following

Procure Software's which are required to enable smooth e-Learning operations,

- Integrate learning management system in two languages(Hindi & English) for school,
- Create school functioning & administration system and integrate it with proposed Doon Integrated Command and Control Centre
- Create parents-school interaction portal and mobile app for notification to parents, class teachers, principal on periodical basis.
- Digitize the records of library and enable library management system for automated book issuing and record keeping system.
- Support purchasing of e-books based on syllabus and host them on learning management system.
- Virtual Classroom can be visualized as a classroom where a lecture or session is conducted using Internet.

Teacher Specific Software

- Software to evaluate comprehension: Administer quizzes and tests in real-time
- Software to encourage collaboration: Distribute and collect digital assignment, form chat groups on topics and Interact via virtual whiteboard, remotely collaborate with other teachers
- Software to direct student attention to relevant material: Restrict website & app usage, launch web-sites and apps for students using single- click, lock screen/device as appropriate etc.
- Software to manage student access of content and create course materials.

Student Specific Software

- To hear how to pronounce English words to build fluency.
- To connect various sensors to conduct Science projects / experiments.
- To see 2D and 3D models to better visualize STEM concepts.
- To learn computational thinking and basic coding skills.
- To create multi-media projects and report. To monitor learning process of students and assess student performance and provide real-time feedback to teachers, parents etc.
- Access to Open Education Resources relevant to offline learning.
- Access to computers outside school- hour for self-paced learning.
- SW to monitor attendance of students followed by notification to related stakeholders like class teacher, principal and parents etc (to be identified by vendor during inception stage of the project in consultation with District Education Officer, Principals and CEO, DSCL).

Virtual Classroom

- Students and teacher connect and interact with each other in real time. This is indeed a very significant process where students get answers to their queries & questions then and there. Interaction with teacher and peers makes the learning process interesting and enriching for students.
- The entire classroom session can be recorded in video format and stored in library for future reference. This feature is extremely useful, especially for absent students, who can review the recordings later and understand the concepts elaborated by the professors. Moreover, the students can also refer to the recordings for revision purpose, at their convenience.
- The resource sharing feature in virtual classroom allows teachers to share varied content in different formats with the students in real time while delivering lectures on various course topics. This resource sharing feature supports sharing of various file formats - MS Word, MS Excel, Powerpoint Presentations, PDF files, flash presentations, etc. While teaching, the teacher can exhibit all the operations from the desk, by sharing a particular application or the entire desktop. This resource sharing feature is extremely useful for sharing various course materials like topic notes, subject diagrams or graphs, explanatory videos etc. With this type of supportive and informative course material, learning becomes interesting and gives an interactive experience.

Digital Contents

- The content should be accessible from an easy-to-use application and the application platform is to be provided along with the content.

- The content should be fully secure, Encrypted and controlled by a license for the contract period..
- The Content should be periodically updated as and when the change in curriculum happens during the contract period, via internet after one time synchronization at the time of deployment.
- The videos should be available topic wise. Each video should help the teacher in explaining the key concepts covered in the topic. It should not be a replica of the prescribed book. The videos should follow the instruction design principles and be a complete unit that includes learning objective, content, and summary

School Management System

- Every student can systematically and efficiently be updated on the student data management, thereby facilitating the administration to manage as well as organize all kinds of information, ready to be used as and when needed. The faculty can effortlessly issue updated report cards, manage student's transcripts, student attendance and obtain any information on the go. A student's progress can also be tracked with the help of various analytic tools and dashboards available, which also have various types of filters for varying uses. Also a student's health records can be maintained in order to be informed about any allergies or illnesses they might suffer from, to keep a check on their well-being.
- Parents and students alike can pay the fees online via any mode of their choice. This ensures hassle-free and error free collection of fees without any burden on the staff as well as the students. Notification is sent after receiving the fee amount, making the transaction transparent and secure. Also, an email or SMS alert can be sent to students with over dues.
- Teacher Management System system that enables teachers to stay involved in each student's progress every step of the way, informing teacher instruction and guiding differentiated learning. Teacher Management System provides user friendly, automated monitoring and management tools for all your classes.
- Timetable management system is a unanimous requirement for planning class timings in school. The system can be deployed to schedule a new class, cancel an existing class, and making other changes to a timetable. It is simple and saves time and energy.

4. Manpower Requirements

As per the Project Implementation plan, Project will have three phases –

- Phase 1: Development and Implementation,
- Phase 2: Training of Teachers, Staff & Parents and Implementation of Learning management System
- Phase 3: Operation, Maintenance and Monitoring.

Phase 1 & 2 will collectively form Development Phase and Phase 2 & 3 will form the Operation & Management Phase of the project.

Implementation Agency will have to provide the following personnel to develop and manage the project on a full time basis:

A. Development Phase (Phase 1 & 2)

1. **Project Manager:** The Implementation Agency/bidder has to appoint a full time project manager for project development phase from start of the project for 6 months. Education qualifications:
 - Post-Graduate in Computer Science/IT or MCA with MBA
 - Minimum 10 years project management experience (8 years in handling implementation projects related to Govt implementation Project)
 - Experience in implementation of large scale ICT projects in Public sector.
2. **Implementation Team:** Based on the requirements Implementation team will have to be deployed in DSCL under direct supervision of **Project Manager** who will directly report to Dehradun Smart City Limited (**DSCL**).
3. **IT support/Coordinator staff (3 persons):** Three support IT/ Coordinator staff for the entire project cycle will have to be deployed for smooth implementation, operation and management of the project. IT support staff will ensure the successful implementation and operations of the project.

Qualifications:

- Graduate in IT/Computer Science
- Minimum 5 years' experience (3 years in handling implementation projects related to Govt implementation Project)

B. Operation & Management Phase (Phase 2 & 3).

Roles and responsibilities:

- In charge of the complete project management from the bidder
- To ensure smooth implementation of the project
- Monitoring of the performance of School Instructors.
- Infrastructure maintenance.
- Conduct Monthly Review meets with the School Level Coordinators

- Vendor Management to ensure the Machines are have high uptime
- To visit Schools on regular basis to check the execution.
- To get the desired data, reports on time always and to send monthly report to the education department.
- To close all RED alerts within 7 days by co-coordinating with School Coordinators and Vendor.
- To schedule Faculty Induction, Technical Trainings and a Capacity Building session for parents
- Send Monthly reports to DSCL office & education department and participate in the monthly review
- Principal interface from the vendor with the DSCL and District Education Department throughout the project period
- To ensure the contractual obligations are met as per agreement
- MIS requirements from the stakeholders (DSCL, education department and line departments) are met
- Liaison with the government for submission of monthly reports, bill and timely collection of payment.
- Interaction with the Dehradun Smart City Limited and other line departments on a regular basis to update the progress of the project and attend required review meetings as described in Master Service Agreement.
- To support city level coordinator, school level coordinator and school/ education department staff in all the IT related issues and matters.
- Will be responsible for upkeep and operational efficiency of the Smart School project.
- To keep all the hardware and software in operational condition, on the spot training and hand holding of the teachers to enable the teachers to use the computers for computer teaching & also using educational e-content for Computer Aided Learning.

3. Scope of Work (Civil and Electrical)

Retrofitting and repairing works requirements for proposed schools

According to site assessment the Major Civil /Electrical work, repairing and retrofitting is required in Govt. Boys Inter College, Khurbura and Govt. Girls Junior High School Khurbura as below.

3.1 Civil work

- The existing buildings require major repair and retrofitting works.
- Water proofing need to be done for roofs, balconies, terraces,
- Painting for wall, wooden and steel items.
- Repairing of Doors, Lockers & Windows.
- Sanitary work need to be improved.
- Drainage system of the schools needs to be properly planned.
- Campus Development and Beautification is also proposed.

3.2 Electrical works

- Repair & Up gradation of Electrical system of the buildings is also required.
- Circuit cum point of wiring.
- Final distribution boards.
- Supply & installation of Light Fixture, Exhaust Fan.
- LT Panel & cable, cable tray and Earthing work.

3.3 Technical Specifications

This Section contains the Specification, the Drawings, and supplementary information that describe the Works to be procured.

The Standard Specification for the works to be executed under this Contract are as described in the relevant IS codes for the works. These Standard Specifications for Procurement of Works are further supplemented by the Particular Specifications provided here in after and shall to that extend supersede the Standard Specifications.

Equivalency of Standards and Codes

Wherever reference is made in the Contract to specific standards and codes to be met by the goods and materials to be furnished, and work performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise stated in the Contract. Where such standards and codes are national, or relate to a particular country or region, other authoritative standards which ensure an equal or higher quality than the standards and codes specified will be acceptable subject to the Engineer-in charge prior review and written approval.

4.3.1 Sample and Test

The Contractor shall be responsible to develop a quality control program and to provide all necessary materials, apparatus, instruments, equipment, facilities and qualified staff for sampling, testing and quality control of the materials and the works under the Contract.

4.3.2 Protection of Utilities

The Contractor is required to carefully examine the location of the Works and their alignments and to make special enquiries with all authorities concerning water, sewer, gas pipes and telephone or electric cables lines, etc., to determine and verify to his own satisfaction the character, sizes, position and lengths of such utilities from authentic records. The Contractor shall be wholly responsible for the protection and/or facilitating relocation /reinstatement of such utilities as may be required, and shall not make any claim for extra work or extra time that may be required to protect or facilitate relocating such utilities. If any major shifting or realignment of water, sewer, gas, electric or telephone lines is necessary due to their interference with the proposed Works, the same may be done by the Employer. The cost of such major utility relocations will be borne by the Employer.

4.3.3 First-aid services

The Contractor shall, at his own expense, provide first aid equipment at all camps and work sites to the satisfaction of the Engineer , and shall ensure that at all work sites where 40 or more persons are engaged on the Works there shall at all times be a person qualified in first-aid with access to appropriate first-aid equipment. A first-aid post shall be established at each base camp comprising a suitable room with two beds, washing and examination facilities, appropriate medical supplies, and staffed on a full-time basis by a qualified paramedical attendant.

4.3.4 Records of labour and accidents

The Contractor shall maintain full records of numbers, working hours and wages of labour, safety, health and welfare of persons, accidents, and damage to property and make such reports on these matters to the Engineer as he may from time to time prescribe.

4.3.5 Utility Shifting

If required for facilitating the work, the contractor shall be responsible for shifting permanently all service lines, cables overhead or buried, and getting the permissions from the relevant authority. Only necessary letters for getting permission for the utility shifting shall be provided by the Employer. The cost to be paid for the utilities shifting shall be borne by the Employer at actual under the item provisional sums, excluding the cost of delays due to the contractor for delay in getting the permissions. All temporary shifting shall be arranged by the contractor without any extra cost to the Employer. Vouchers in original for the payment made to the Utility owner shall be produced to the employer by the contractor which shall be reimbursed by the employer.

4.3.6 The scope of work under this shall include the following

All preliminary work such as site clearance in all types of conditions, marking of alignment etc. as described elsewhere in these specifications, for such work no extra payment shall be made to the Contractor. The Contractor is advised to inspect site before tendering to ascertain the quantum and cost of work and include this cost in their offer. Excavation of trenches and foundations for all works and other ancillary works in all sorts of strata including refilling of trenches, disposal of surplus

soil and site clearance works. Compliance of all safety rules at work sites.

To take all safe guards to avoid accidents at site, prevent loss/damage to all existing utilities like pipelines, telephone/electric cables, poles etc and any government or private property during the contract period.

4.3.7 Water

Water used for mixing and curing shall be clean and free from injurious amounts of oils, acids, alkalis, salts, sugar, organic materials or other substances that may be deleterious to concrete or steel. Potable water is generally considered satisfactory for mixing concrete and curing. The pH value shall not be less than 6.

4.3.8 Sand/Fine Aggregates

For plain and reinforced cement concrete (PCC and RCC) or pre-stressed concrete (PSC) works, fine aggregate shall consist of clean, hard, strong and durable pieces of crushed stone, crushed gravel, or a suitable combination of natural sand, crushed stone or gravel. They shall not contain dust, lumps, soft or flaky, materials, mica or other deleterious materials in such quantities as to reduce the strength and durability of the concrete, or to attack the embedded steel. Motorized sand washing machines should be used to remove impurities from sand. Fine aggregate having positive alkali-silica reaction shall not be used. All fine aggregate shall conform to IS: 383-1970(Reaffirmed-1990) and test for conformity shall be carried out as per IS: 2386 (Part I to VIII). The Contractor shall submit to the Engineer the entire information indicated in Appendix A of IS: 383. The fineness modulus of fine aggregate shall neither be less than 2.0 nor greater than 3.5.

For masonry work, sand shall conform to the requirements of IS: 2116.

Sand/fine aggregate for structural concrete shall conform to the following grading requirements:

IS Sieve Size	Percent by Weight Passing the Sieve		
	Zone I	Zone II	Zone III
4.75 mm	90-100	90-100	90-100
2.36 mm	60-95	75-100	85-100
1.18 mm	30-70	55-90	75-100
600 micron	15-34	35-59	60-79
300 micron	5-20	8-10	12-40
150 micron	0-10	0-10	0-10

4.3.9 Coarse Aggregates

For plain and reinforced cement concrete (PCC and RCC) works, coarse aggregate shall consist of clean, hard, strong, dense, non-porous and durable pieces of crushed stone, crushed gravel, natural gravel or a suitable combination thereof or other approved inert material. Coarse aggregates shall not consist of pieces of disintegrated stones, soft, flaky, elongated particles, salt, alkali, vegetable matter, or other deleterious materials in such quantities as to reduce the strength and durability of the concrete, or to attack the steel reinforcement. Coarse aggregate having positive alkali silica reaction shall not be used. All coarse aggregates shall conform to IS: 383 and tests for conformity shall be carried out as per IS: 2386 Parts I to VIII.

The Contractor shall submit for the approval of the Engineer, the entire information indicated in Appendix - A of IS: 383.

The maximum value for flakiness index for coarse aggregate shall not exceed 35 percent. The coarse aggregate shall satisfy the following requirements of grading:

IS Sieve Size	Percent by Weight Passing the Sieve		
	40 mm	20 mm	12.5 mm
63 mm	100	-	-
40 mm	95-100	100	-
20 mm	30-70	95-100	100
12.5 mm	-	-	90-100
10 mm	10-35	25-55	40-85
4.75 mm	0-5	0-10	0-10

4.3.10 Brick

Burnt clay bricks shall conform to the requirement of IS: 1077, except that the minimum compressive strength when tested flat shall not be less than 7.0 MPa for individual bricks and 7.5 MPa for average of 5 specimens. They shall be free from cracks and flaws and nodules of free lime. The brick shall have smooth rectangular faces with sharp corners and emit a clear ringing sound when struck. The size may be according to local practice with a tolerance of ± 5 per cent.

4.3.11 Cement

Cement to be used in the works shall be any of the following types with the prior approval of the Engineer:

1. Ordinary Portland Cement, 43 Grade, conforming to IS: 8112.
2. Ordinary Portland Cement, 53 Grade, conforming to IS: 12269.
3. Pozzolana Portland Cement (PCC) conforming to IS: 1489 (part-II).

Cement conforming to IS: 8112, IS: 1489 and IS: 12269 may be used provided the minimum cement content mentioned elsewhere from durability considerations is not reduced. From strength considerations, these cements shall be used with a certain caution as high early strengths of cement in the 1 to 28-day range can be achieved by finer grinding and higher constituent ratio of C3S/C2S, where C3S is Tricalcium Silicate and C2S is Dicalcium Silicate. In such cements, the further growth of strength beyond say 4 weeks may be much lower than that traditionally expected. Therefore, further strength tests shall be carried out for 56 and 90 days to fine tune the mix design from strength considerations.

4.3.12 Storage of Materials

General

All materials may be stored at proper places so as to prevent their deterioration or intrusion by foreign matter and to ensure their satisfactory quality and fitness for the work. The storage space must also permit easy inspection, removal, and re-storage of the materials. All such materials even though stored in approved go down / places, must be subjected to acceptance test prior to their immediate use.

Water

Water shall be stored in containers / tanks covered at top and cleaned at regular intervals in order to prevent intrusion by foreign matter or growth of organic matter. Water from shallow, muddy or marshy surface shall not be permitted. The intake pipe shall be enclosed to exclude silt, mud, grass and other solid materials and there shall be a minimum depth of 0.60 m of water below the intake at all times

Aggregates

Aggregate stockpiles may be made on ground that is denuded of vegetation, is hard and well drained if necessary, the ground shall be covered.

Brick

Bricks shall not be dumped at site. They shall be stacked in regular tiers as they are unloaded, to minimize breakage and defacement. The supply of bricks shall be available at site at any time. Bricks selected for use in different situations shall be stacked separately.

Cement

Cement shall be transported, handled and stored on the site in such a manner as to avoid deterioration or contamination. Cement shall be stored above ground level in perfectly dry and water-tight sheds and shall be stacked not more than eight bags high. Wherever bulk storage containers are used their capacity should be sufficient to cater to the requirement at site and should be cleaned at least once every 3 to 4 months.

Each consignment shall be stored separately so that, it may be readily identified and inspected and cement shall be used in the sequence in which it is delivered at site. Any consignment or part of a consignment of cement which had deteriorated in any way, during storage, shall not be used in the works and shall be removed from the site by the Contractor without charge to the Employer. The Contractor shall prepare and maintain proper records on site in respect of delivery, handling, storage and use of cement and these records shall be available for inspection by the Engineer at all times.

The Contractor shall make a monthly return to the Engineer on the date corresponding to the interim certificate date, showing the quantities of cement received and issued during the month and in stock at the end of the month.

Reinforcement / Un-tensioned Steel

The reinforcement bars, when delivered on the job, shall be stored above the surface of the ground upon platforms, skids, or other supports, and shall be protected from mechanical injury and from deterioration by exposure.

In Mix Design, the proportions of the constituents (i.e. cement, coarse aggregates, fine aggregates, and water) shall be determined by weight. Mix proportioning shall be based on the principles given in IS: 456-2000 and SP: 23-1982 "Handbook for Design Mix Concrete."

Mixing Concrete

For all works, concrete shall be mixed in a mechanical mixer which along with other accessories shall be kept in first class working condition and so maintained throughout the construction. Mixing shall be continued till materials are uniformly distributed and a uniform colour of entire mass is obtained and each individual particle of the coarse aggregate shows a complete coating of mortar containing its proportionate amount of cement. In no case, the mixing be done for a period of not less than two minutes after all ingredients have been put into the mixer. Mixers which have been out of use for more than 30 minutes shall be thoroughly cleaned before putting a new batch. Unless otherwise agreed by the Engineer, the first batch of concrete from the mixer shall contain only two thirds of the normal quantity of coarse aggregate. The mixing plant

4.3.13 Metal Doors, Windows and Rolling Shutters

All doors and windows shall be manufactured with steel conforming to IS: 1033 and shall be of good workmanship including fitting, & fixing of the same shall be done as per specification. All steel doors, windows and ventilators shall be supplied with an approved protective paint.

4.3.14 Statutory Requirements

Bidder shall comply with all the applicable statutory rules pertaining to Factories Act (as applicable for the state of Uttarakhand), Fire Safety Rules of Tariff Advisory Committee, and Water Act for Pollution control, Explosives Act., etc.

Provisions of safety, health and welfare according to Factories Act shall be complied with.

Statutory clearances and norms of State Pollution Control Board shall be followed.

Bidder shall obtain approval of Civil / Architectural drawings from concerned authorities before taking up the construction work.

4.3.15 Inspection, Testing and Quality Control for Civil Works

Sampling and testing for major items of civil works viz., earthwork, concreting, structural steel work (including welding), Hydraulic testing etc. shall be carried out in accordance with the requirements of this specification. Wherever nothing is specified relevant Indian Standard shall be followed. In absence of Indian Standard equivalent International Standards may be used.

4.3.16 Unacceptable Work

All defective works are liable to be demolished rebuilt and defective materials are to be replaced by the contractor at his own costs. In the event of such works being accepted by carrying repairs, as approved by the Employers representative, the costs of repairs will be borne by the Contractor, unless otherwise specifically mentioned elsewhere in the contract.

Masonry

All masonry shall be built true and plumb within permissible tolerance. Care shall be taken to keep the perpendiculars properly aligned.

Structural Steel Work

Tolerances on dimensions for fabrication of steel structures shall be according to IS: 7215.

Tolerances on dimensions for erection of steel structures shall be according to IS: 12843.

3.4 Tender Drawings

The tender drawings has been enclosed as a separate document which can be downloaded from the website <https://uktenders.gov.in>. All these drawings are tender drawings. The good for construction (GFC) drawings/working drawings shall be issued to the final responsive bidder during award of contract

4. General Conditions of Contract (GCC)

The Contract shall be governed by and interpreted in accordance with the laws of India.

4.1 Deliverables & Payment Schedule

For IT components (Supply, Installation, Testing and Commissioning excluding Comprehensive O&M).

Sr. No.	Item Description
1	10% Advance of the contract price (supply+ Installation + Testing+Commissioning) excluding Comprehensive O&M price shall be paid within 30 days from the final contract signing and on submission of unconditional Advance Bank Guarantee valuing 10% of the contract price. The validity of the ABG shall be 60 days beyond the date of "Go Live"
2	50% of the contract price (supply+ Installation + Testing+Commissioning) excluding Comprehensive O&M price shall be paid within 30 days after the successful installation of all the IT components and on submission of documents*. Invoice to be raised for above % only
3	30% of the contract price (supply+ Installation + Testing+Commissioning) excluding Comprehensive O&M price shall be paid within 30 days after 1 month of successful operation of the complete scope of work of IT components and related services (Go Live) after issuance of operational acceptance certificate by the authority and on submission of documents*. Invoice to be raised for above % only
4	10% of the contract price (supply+ Installation + Testing+Commissioning) excluding Comprehensive O&M price shall be paid within 30 days after 2 months of successful operation of the complete scope of work of IT components and related services (Go Live) after issuance of operational acceptance certificate by the authority and on submission of documents*. Invoice to be raised for above % only

* Documents to be submitted along with the invoice

1. Three Copies of the Supplier invoice showing contract number, goods description, quantity, unit price, total amount;
2. Delivery note, Railway receipt, or Road consignment note or equivalent transport document or acknowledgement of receipt of goods from the Consignee;
3. Three Copies of packing list identifying contents of each package;
4. Insurance certificate;
5. Manufacturer's/Supplier's warranty certificate;
6. Inspection certificate issued by the nominated inspection agency, and the Supplier's factory inspection report; and
7. Certificate of origin.

For IT components and related services (Comprehensive O&M).

Sr. No.	Item Description
1	Charges for O&M shall be paid after the successful completion of IT components and related services (Go Live) and after issuance of operational acceptance certificate by the authority in equal quarterly instalments at the end of each quarter as per the rates quoted in the price bid BOQ and on submission of relevant supporting documents.

For Repairing/Retrofitting Works (including Civil and Electrical Works)

The Payments shall be made as per actual measurements of quantities executed during the period at site and certified by the Engineer, based on quoted rates. The contractor shall raise invoices on monthly basis and payment shall be done within 30 days from the date of submission of certified invoice with relevant supporting documents.

It is the responsibility of the bidders to quote for and provide all the Hardware and Software for meeting all the requirements of the RFB. In case during evaluation, it is found that certain Hardware or Software which is critical for meeting the requirement of this RFB and has not been quoted as part of financial bid, the bid can be rejected as non-responsive. Additionally, if after the award of contract, it is felt that additional Hardware or Software are required for meeting the RFB requirement and the same has not been quoted by the Successful Bidder, the Successful Bidder shall provide all such additional Hardware or Software at no additional cost to AUTHORITY.

Note:

1. **A retention money of 5% value from each monthly invoice shall be withheld by the Authority which shall be released within 60 days after the successful completion of the defect liability period.**
2. **All the insurance for the complete IT components for the complete contractual period including the comprehensive O&M shall be on account of the bidder.**

5. Confidential Information

- a) AUTHORITY and the Successful Bidder shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data, or other information furnished directly or indirectly by the other party hereto in connection with the Contract, whether such information has been furnished prior to, during or following completion or termination of the Contract.
- b) The Successful Bidder shall not use the documents, data, and other information received from AUTHORITY for any purpose other than the services required for the performance of the Contract.

6. Change in Laws and Regulations

Unless otherwise specified in the Contract, if after the date of the Invitation for bids, any law, regulation, ordinance, order or bylaw having the force of law is enacted, promulgated, abrogated, or changed that subsequently affects the Delivery Date and/or the Contract Price, then such Delivery Date and/or

Contract Price shall be correspondingly increased or decreased, to the extent that the Successful Bidder has thereby been affected in the performance of any of its obligations under the Contract.

7. Force Majeure

- a) The Successful Bidder shall not be liable for termination for default if and to the extent that it's delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

- b) For purposes of this Clause, Force Majeure means an event or situation beyond the control of the Successful Bidder that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the Successful Bidder. Such events may include, but not be limited to, acts of AUTHORITY in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

- c) If a Force Majeure situation arises, the Successful Bidder shall promptly notify AUTHORITY in writing of such condition and the cause thereof. Unless otherwise directed by AUTHORITY in writing, the Successful Bidder shall continue to perform its obligations under the Contract as far as it is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

8. Settlement of Disputes

1. Performance of the contract is governed by the terms and conditions of the contract, in case disputes arise between the parties regarding any matter under the contract, either Party of the contract may send a written Notice of Dispute to the other party. The Party receiving the Notice of Dispute will consider the Notice and respond to it in writing within 30 (thirty) days after the receipt. If that party fails to respond within 30 (thirty) days, or the dispute cannot be amicably settled within 60 (sixty) days following the response of that party, clause GCC 3.6 (2) shall become applicable.

2. Arbitration:

- a) In the case of dispute arising, upon or in relation to, or in connection with the contract between AUTHORITY and the Successful Bidder, which has not been settled amicably, any party can refer the dispute for Arbitration under the (Indian) Arbitration and Conciliation (Amendment) Act, 2015. Such disputes shall be referred to an Arbitral Tribunal consisting of three arbitrators, one each to be appointed by the AUTHORITY and the Successful Bidder, the third arbitrator shall be chosen by the two arbitrators so appointed by the parties and shall act as Presiding Arbitrator. In case of failure of the two arbitrators, appointed by the parties to reach a consensus regarding the appointment of the third arbitrator within a period of 30 (thirty) days from the date of appointment of the two arbitrators, the Presiding arbitrator shall be appointed by CEO, DEHRADUN SMART CITY LIMITED. The Arbitration and Conciliation (Amendment) Act, 1996 and any statutory modification or re-enactment thereof, shall apply to these arbitration proceedings.

- b) Arbitration proceedings shall be held in DEHRADUN, Uttarakhand, India and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English.

- The decision of the majority of arbitrators shall be final and binding upon both parties. The expenses of the arbitrators as determined by the arbitrators shall be shared equally by AUTHORITY and the Successful Bidder. However, the expenses incurred by each party in connection to the preparation, presentation shall be borne by the party itself. All arbitration awards shall be in writing and shall state the reasons for the award.
- c)

9. Time of Completion

1. The time of completion of the works for the implementation of the project as per the work (Go Live) shall be 9 months from the date of final contract signing. The operation and maintenance period for IT components and related services shall be 36 months from the date of "Go Live". The Defect liability period for Electrical and Civil Works shall be 12 months from the issuance of successful operational certificate by the Authority.
 2. The successful bidder shall submit in two copies a detailed work programme/schedule for the project implementation within 15 days of signing the contract.
 3. Monthly progress reports shall be submitted in two copies to the Authority showing the work executed against the schedule during the implementation of the project and quarterly report during the operation & maintenance period. The reports shall be submitted on or before the 5th day of the following month.
 4. If at any time during performance of the Contract, the Successful Bidder encounters condition impeding timely delivery of the Services, the Successful Bidder shall promptly notify AUTHORITY in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Successful Bidder notice, AUTHORITY shall evaluate the situation and may at its discretion extend the Successful Bidder time for performance in writing.
 5. Delay by the Successful Bidder in the performance of its Delivery and Completion obligations shall render the bidder liable for disqualification for any further bids in AUTHORITY and penalty levied as per Cl.3.10.1 unless an extension of time is agreed mutually.
 6. Progress of work will be monitored by Authorized Team of PMC & DSCL on Regular Basis.
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1. If, as the result of Force Majeure, the Successful Bidder is unable to perform a material portion of the Services for a period of not less than 60 (sixty) days.

2. If the Successful Bidder submits to the AUTHORITY a false statement which has a material effect on the rights, obligations or interests of AUTHORITY.
3. If the Successful Bidder places itself in a position of conflict of interest or fails to disclose promptly any conflict of interest to AUTHORITY.
4. If the Successful Bidder fails to provide the quality services as envisaged under this Contract, AUTHORITY may make judgment regarding the poor quality of services, the reasons for which shall be recorded in writing. AUTHORITY may decide to give one chance to the Successful Bidder to improve the quality of the services.
5. If the Successful Bidder fails to comply with any final decision reached as a result of arbitration proceedings.
6. If AUTHORITY, in its sole discretion and for any reason whatsoever, decides to terminate this Contract.
7. In the event AUTHORITY terminates the Contract in whole or in part, pursuant to this GCC Clause 3.8, AUTHORITY may procure, upon such terms and in such manner as it deems appropriate, services similar to those undelivered or not performed, and the Successful Bidder shall be liable to AUTHORITY for any additional costs for such similar services. However, the Successful Bidder shall continue performance of the Contract to the extent not terminated.
8. Once the work started or In-Progress the Bidder will not stop the work without prior Permission of PMC, DSCL and monthly Progress Report would be submitted in PMC, DSCL by authorized Person with stamp and Signature.

Upon termination of this Contract pursuant to GCC Clauses 3.8, the AUTHORITY shall make the following payments to the Successful Bidder:

- a) If the Contract is terminated pursuant to GCC Clause 3.8 (10), remuneration for Services satisfactorily performed prior to the effective date of termination.
 - b) If the agreement is terminated pursuant of GCC Clause 3.8 (1), (2), (3), (4), (5), (6), (7), (8) and (9), the Successful Bidder shall not be entitled to receive any agreed payments upon termination of the contract. However, the AUTHORITY may consider making a payment for the part satisfactorily performed on the basis of *quantum merit* as assessed by it, if such part is of economic utility to the AUTHORITY. The AUTHORITY may also impose liquidated damages as per the terms of this RFB. The Successful Bidder will be required to pay any such liquidated damages to AUTHORITY within 30 (thirty) days of termination date.
1. In case of failure to complete the work/ supply in time the penalty shall be levied @ 0.50% per week or part thereof of the contract price subject to maximum of 10% of the project component cost which is being delayed. If the total Penalty exceeds beyond 10% of the total amount, it would be considered as non-conformance to the quality of Services and may lead to termination of the Contract and AUTHORITY may on their sole discretion cancel the order.

2. The service levels during O&M are to be established as per requirements defined as below. The Successful Bidder shall monitor and maintain the stated service levels to provide quality service to the AUTHORITY. Any adverse certification by the head of the Colleges will attract deductions in the O&M Payments, at the discretion of DSCL.

10. Service Level Agreement

1. The service levels to be established for the Services offered by the Successful Bidder to the AUTHORITY. The Successful Bidder shall monitor and maintain the stated service levels to provide quality service to the AUTHORITY.
2. The SLAs may be reviewed on quarterly basis as the AUTHORITY decides after taking the advice of the Successful Bidder and other agencies. All the changes shall be made by the AUTHORITY in consultation with the Successful Bidder.
3. In case of failure / delay to complete the work/supply in time the penalty shall be levied @ 0.50% per week or part thereof of the total Contract Value subject to maximum of 10% of the total Contract Value. If the total Penalty exceeds beyond 10%, it would be considered as non-conformance to the Quality of Services and may lead to termination of the Contract and AUTHORITY may on their sole discretion cancel the order. Penalty will be recovered from the retention amount.
4. The SLA parameters shall be monitored on a monthly basis as per the individual SLA parameter requirements. However, if the performance of the system/services is degraded significantly at any given point of time during the contract and if the immediate measures are not implemented and issues are not rectified to the complete satisfaction of the AUTHORITY or an agency designated by them, then the AUTHORITY shall have the right to take appropriate punitive actions including termination of the contract.
5. Onsite comprehensive (including all Hardware, Software, network cabling for all types of defects and problems) maintenance services shall be provided by the Supplier / OEM during the period of warranty and Comprehensive Annual Maintenance Contract (CAMC). In case the supplier fails to rectify the problem within SLA including holidays then OEM shall be required to provide second level support, service to rectify the problem or replace the faulty system or part thereof. The performance of the system shall be measured and applicable penalties shall be calculated and imposed on the bidder, in case the performance is below the defined thresholds.

SLA Terms:

SLA Terms	Description
Uptime	'Uptime' refers to availability of network across various labs. "%Uptime" means ratio of 'up time' (in minutes) in a month to Total working time in the month (in minutes) multiplied by 100
Prime Business Hours (PBH)	PBH refers to the prime network utilization period, which shall be school working hours on all working days.
Extended SLA Hours (ESH)	ESH refers to the network utilization period, which shall be Outside PBH.
System Uptime	Time for which user is able to access the software applications, MIS Dashboard website and other components during the working hours. The system can be down due to any of the reasons including failure of hardware, network, system software, application etc.

Bugs/Issues in application	<ul style="list-style-type: none"> • Critical bugs / issues – Bugs / issues affecting more than one system. • Non-critical bugs / issues – Bugs / issues affecting at most one user.
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SLAs to be complied:

Parameter for SLA	Penalty
Development / Customization, Testing, Acceptance, installation, commissioning and Implementation of Text Book based educational Software application. To be completed in T + 12 Weeks	Penalty of Rs 2000 per class room per week where the installation is incomplete.
Uptime after Go-Live – 99% (during PBH)	Penalty of Rs 2000 per class room per week of unavailability.
Average internet availability – 99% (during PBH and ESH)	Penalty of Rs 2000 per week of unavailability per class room.
Resolution time for bugs / issues in the applications – 48 Hours	Penalty of Rs 2000 per week of unavailability per class room.
Availability of Trainer	Penalty of Rs 2000 per week of absence of trainer.
Timely Operation, Maintenance & Helpdesk services	Penalty of Rs 2000 per week

- a) The Successful Bidder should comply with all applicable laws and rules of Government of India/ Government of Uttarakhand /Municipal Corporation DEHRADUN/ Dehradun Smart City Limited.
- b) The support executive(s)/ supervisor(s)/ staffs deployed by the Successful Bidder shall not have right to demand for any type of permanent employment with AUTHORITY or its allied Offices.
- c) Chief Executive Officer, Dehradun Smart City Limited reserves the right to withdraw/ relax any of the terms and condition mentioned in the RFB, so as to overcome the problem encountered at a later stage for the smooth and timely execution of the project.

In case the Successful Bidder fails to deliver the project due to inadvertence, error, collusion, incompetency, termination, misconstruction or illicit withdrawal, the Chief Executive Officer, Dehradun Smart City Limited reserves the right to procure the same or similar services from the alternate sources at risk, cost and Responsibility of the Successful Bidder.

Bidding Forms

Annexure 1 Format to share Particulars of the Bidder

The Table below provides the format in which general information about the bidder must be furnished.

S No	Information	Details
1.	Name of bidder	
2.	Address and contact details of bidder	
3.	Firm Registration Number and Year of Registration	
4.	Web Site Address	
5.	Status of Company (Public Ltd., Pvt. Ltd., LLP etc.)	
6.	GST Registration No.	
7.	Permanent Account Number (PAN)	
8.	Turnover for the last 3 years (Year wise)	
9.	Name, Designation and Address of the contact person to whom all references shall be made regarding this RFB:	
10.	Telephone number of contact person:	
11.	Mobile number of contact person:	
12.	Fax number of contact person:	
13.	E-mail address of contact person:	

Please submit the relevant proofs for all the details mentioned above along with your bid response

Authorized Signatory

Name

Seal

Annexure 2: Consortium Agreement

DRAFT MEMORANDUM OF UNDERSTANDING EXECUTED BY MEMBERS OF THE CONSORTIUM

[On Non-judicial stamp paper duly attested by notary public]

This Memorandum of Understanding (MoU) entered into this day of [Date] [Month] 2018 at [Place] among _____ (hereinafter referred to as "_____") and having office at [Address], India, as Party of the First Part and _____ (hereinafter referred to as "_____") and having office at [Address], as Party of the Second Part.

The parties are individually referred to as Party and collectively as Parties.

WHEREAS DEHRADUN SMART CITY LIMITED, has issued a Request for Bid dated [Date] (RFB) from the applicants interested in **PROVIDING SMART SOLUTIONS TO 3 NOS. SCHOOL IN DEHRADUN INCLUDING IT SOLUTIONS, CIVIL AND ELECTRICAL WORKS THROUGH E-PROCUREMENT**

AND WHEREAS the Parties have had discussions for formation of a Consortium for bidding for the said Project and have reached an understanding on the following points with respect to each of the Parties' rights and obligations towards each other and their working relationship.

BASIS THE MUTUAL UNDERSTANDING OF THE PARTIES, IT IS HEREBY AGREED AND DECLARED AS FOLLOWS:

- i. The purpose of this Agreement is to define the principles of collaboration among the Parties to:
 - a. Submit a response jointly to bid for the **PROVIDING SMART SOLUTIONS TO 3 NOS. SCHOOL IN DEHRADUN INCLUDING IT SOLUTIONS, CIVIL AND ELECTRICAL WORKS THROUGH E-PROCUREMENT** as
 - Consortium.
 - Sign Contract in case of award.
 - Provide and perform the supplies and services which would be ordered by the Authority pursuant to the Contract.
- ii. This Agreement shall not be construed as establishing or giving effect to any legal entity such as, but not limited to, a company, a partnership, etc.

It shall relate solely towards the Authority for "RFB for Providing, Installing, Commissioning and Making Go-Live the Smart Classroom Infrastructure & its AMC along with other miscellaneous works in the Government Colleges in DEHRADUN" for and related execution works to be performed pursuant to the Contract and shall not extend to any other activities.
- iii. The Parties shall be jointly and severally responsible and bound towards the Authority for the performance of the works in accordance with the terms and conditions of the RFB document, and Contract.
- iv. ----- (Name of Party) shall act as Lead Member of the Consortium. As such, it shall act as the coordinator of the Party's combined activities and shall carry out the following functions:

- a. To ensure the technical, commercial and administrative co-ordination of the work package
- b. To lead the contract negotiations of the work package with the Authority.
- c. The Lead Member is authorized to receive instructions and incur liabilities for and on behalf of all Parties.
- d. In case of an award, act as channel of communication between the Authority and the Parties to execute the Contract
- e. That the Parties shall carry out all responsibilities in terms of the Project Agreement.
- f. That the broad roles and the responsibilities of each Party as per each member's field of expertise at each stage of the bidding shall be as below:

Party A: _____

Party B: _____

Party C: _____

Party D: _____

- g. That the proposed administrative arrangements (organization chart) for the management and execution of the Project shall be as follows:
- h. That the profit and loss sharing ratio shall be _____ Respectively
- i. That the Parties agree that all the members of the Consortium shall be jointly and severally liable for all obligations in relation to the Contract until the completion of the Project in accordance with the Contract;
- j. Parties affirm that they shall implement the Project in good faith and shall take all necessary steps to see the Project through expeditiously.
- k. That this MoU shall be governed in accordance with the laws of India and courts in Uttarakhand shall have exclusive jurisdiction to adjudicate disputes arising from the terms herein.

In witness whereof the Parties affirm that the information provided is accurate and true and have caused this MoU duly executed on the date and year above mentioned.

(Party of the first part) (Party of the second part) (Party of the third part) (Party of the fourth part)

Witness:

i. _____ ii. _____

Annexure 3 - Technical Bid Cover Letter

(To be submitted on the Letterhead of the bidder/ lead partner in case of co)

Date: dd/mm/yyyy

To,

Chief Executive Officer,
Dehradun Smart City Limited
777, Saatvik Tower, Rajender Nagar,
Kaulagarh Road, Dehradun, 248001

Sub.: Request for Bid for **PROVIDING SMART SOLUTIONS TO 3 NOS. SCHOOL IN DEHRADUN INCLUDING IT SOLUTIONS, CIVIL AND ELECTRICAL WORKS THROUGH E-PROCUREMENT**

RFB Reference No:

Dear Sir/ Ma'am,

Having examined the RFB, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to provide the professional services as required and outlined in the RFB for **PROVIDING SMART SOLUTIONS TO 3 NOS. SCHOOL IN DEHRADUN INCLUDING IT SOLUTIONS, CIVIL AND ELECTRICAL WORKS THROUGH E-PROCUREMENT**

(Hereinafter referred to as "Project").

We attach hereto the technical response as required by the RFB, which constitutes our proposal. We undertake, if our proposal is accepted, to adhere to the implementation plan (Project schedule) for providing Professional Services in **PROVIDING SMART SOLUTIONS TO 3 NOS. SCHOOL IN DEHRADUN INCLUDING IT SOLUTIONS, CIVIL AND ELECTRICAL WORKS THROUGH E-PROCUREMENT** put forward in RFB or such adjusted plan as may subsequently be mutually agreed between us and DEHRADUN SMART CITY LIMITED or its appointed representatives.

We agree for unconditional acceptance of all the terms and conditions set out in the RFB document and also agree to abide by this tender response for a period of 120 (one hundred and twenty) days from the date of submission of bid and it shall remain binding upon us with full force and virtue, until within this period a formal contract is prepared and executed, this tender response, together with your written acceptance thereof in your notification of award, shall constitute a binding contract between us and DEHRADUN SMART CITY LIMITED.

We confirm that the information contained in this proposal or any part thereof, including its exhibits, schedules, and other documents and instruments delivered or to be delivered to DEHRADUN SMART CITY LIMITED is true, accurate, and complete. This proposal includes all information necessary to ensure that the statements therein do not in whole or in part mislead DEHRADUN SMART CITY LIMITED as to any material fact.

We agree that you are not bound to accept any tender response you may receive. We also agree that you reserve the right in absolute sense to reject all or any of the products/ services specified in the tender response.

It is hereby confirmed that I/We are entitled to act on behalf of our company/ corporation/ firm/ organization and empowered to sign this document as well as such other documents, which may be required in this connection.

Date:

(Signature)

(Name)

(In the capacity of)

[Seal / Stamp of bidder] Witness Signature:

Witness Name:

Witness Address:

CERTIFICATE AS TO AUTHORISED SIGNATORIES

I _____, the Company Secretary of _____, certify that _____ who signed the above bid is authorized to do so and bind the company by authority of its board/ governing body.

Date:

Signature:

(Company Seal) (Name)

Annexure 4- Project Implementation Approach

The bidder is required to submit the proposed technical solution in detail.

Following should be captured in the explanation:

- a) The Overall approach to the Project
- b) Project Monitoring and Communication Plan– Bidder's approach to project monitoring and communications among stakeholders.
- c) Implementation plan– Bidder's approach to implement the project
- d) Operation and Maintenance Plan
- e) Quality Control plan - Bidder's approach to ensure quality of work and deliverables
- f) Escalation matrix during contract period

Annexure 5 - Technical Compliance Matrix

Must have for content:

S.No	Functional Feature /Requirement	Compliance (Y/N)	Remarks
1			

Kindly elaborate the features/ benefits of the content being provided, in detail.

Annexure 6 - Financial Proposal Cover Letter

(To be submitted on the Letterhead of the bidder/ lead partner)

Date: dd/mm/yyyy

To

Chief Executive Officer,
Dehradun Smart City Limited
777, Saatvik Tower, Rajender Nagar,
Kaulagarh Road, Dehradun, 248001

Subject: Request for Bid for **PROVIDING SMART SOLUTIONS TO 3 NOS. SCHOOL IN DEHRADUN INCLUDING IT SOLUTIONS, CIVIL AND ELECTRICAL WORKS THROUGH E-PROCUREMENT”**

RFB Reference No:

Dear Sir,

1. We, the undersigned bidder, having read and examined in detail, the Bidding Document, the receipt of which is hereby duly acknowledged, offer to supply/ work in conformity with the captioned bidding document.
2. We undertake that the prices are in conformity with the specifications prescribed. The quote/ price are inclusive of all cost likely to be incurred for executing this work. The prices are inclusive of all type of government taxes/ duties in the financial bid.
3. We undertake, if our bid is accepted, to deliver the goods and services in accordance with the deliverables schedule specified in section 3.2.1. of the RFB.
4. We undertake to successfully operationalize the Project as per scope of work mentioned in the RFB document.
5. We have examined and have no reservations to the Bidding Documents, including any corrigendum/ addendums issued by DEHRADUN SMART CITY LIMITED;
6. We understand that any additional hardware and software required to make the Project operational shall have to be provided by us.
7. We agree to abide by this bid for a period of 120 days from the last date of bid submission and it shall remain binding upon us and may be accepted at any time before the expiry of that period.

8. Until a formal contract is prepared and executed, this bid, together with your written acceptance thereof and your notification of award shall constitute a binding Contract between us.
9. We hereby declare that our bid is made in good faith, without collusion or fraud and the information contained in the bid is true and correct to the best of our knowledge and belief.
10. We understand that you are not bound to accept the lowest or any bid you may receive. We agree to all the terms and conditions as mentioned in the RFB document and declare that we have not submitted any deviations in this regard.

In witness thereof, we submit this bid under and in accordance with the terms of the RFB document.

Date: Yours faithfully,

Place:

(Signature of the Authorised signatory)

(Name and designation of the of the Authorised signatory)

Name and seal of bidder/ lead partner

Annexure 7 - Financial Proposal Format & Instructions

The price bid BOQ is documented separately and can be downloaded from e-procurement portal <https://uktenders.gov.in> along with the RFB documents. The price bid BOQ in excel format which is available on <https://uktenders.gov.in> website should be completely filled and should be uploaded as a part of the bid/proposal without which the bid/proposal shall be treated as “NON-RESPONSIVE

Annexure 8- Format for Declaration by the bidder for not being Blacklisted / Debarred

(To be submitted on the Letterhead of the bidder)

Date: dd/mm/yyyy

To

Chief Executive Officer,
Dehradun SmartCity Limited
777, Saatvik Tower, Rajender Nagar,
Kaulagarh Road, Dehradun, 248001

Subject: Declaration for not being debarred/ black-listed by Central Government/ any State Government/ Public Sector Undertaking in India or similar agencies globally as on the date of submission of the bid

RFB Reference No:

Dear Sir/ Ma'am,

I, authorized representative of _____, hereby solemnly confirm that the _____ ("Successful bidder") is not debarred/ black -listed by Central Government/ any State Government/ Public Sector Undertaking in India or similar agencies globally for unsatisfactory past performance, corrupt, fraudulent or any other unethical business practices or for any other reason as on last date of submission of the bid.

In the event of any deviation from the factual information/ declaration, DEHRADUN SMART CITY LIMITED reserves the right to reject the bid or terminate the Contract without any compensation to the Company.

Thanking you,
Yours faithfully,

Signature of Authorized Signatory (with official seal)

Date:

Name:

Designation:

Address:

Telephone & Fax: E-mail address:

Annexure 9- Power of Attorney

(On a non-judicial stamp paper of appropriate value duly attested by notary public)

Know all men by these presents, we (name and address of the registered office of the Sole Applicant) do hereby constitute, appoint and authorize Mr./Ms. _____ R/o _____ who is presently employed with us and holding the position of _____, to do in our name and on our behalf, all such acts, deeds and things, necessary in connection with or incidental to the bid for **PROVIDING SMART SOLUTIONS TO 3 NOS. SCHOOL IN DEHRADUN INCLUDING IT SOLUTIONS, CIVIL AND ELECTRICAL WORKS THROUGH E-PROCUREMENT**” including signing and submission of all documents and providing information/ responses to DEHRADUN SMART CITY LIMITED and representing us in all matters in connection with our bid for the said Project.

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.

For (Signature)

(Name, Title and Address)

Accept

..... (Signature)

(Name, Title and Address of the Attorney)

Notes:

1. To be executed by the Applicant.
2. The mode of execution of Power of Attorney should be 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 should be under common seal affixed in accordance with the required procedure.
3. Also, wherever required, the executant(s) should submit for verification the extract of the charter documents and documents such as a resolution/ Power of attorney in favour of the Person executing this Power of Attorney for the delegation of power hereunder on behalf of the bidder.

Annexure 10- POWER OF ATTORNEY FOR LEAD MEMBER BY THE CONSORTIUM MEMBER

(On Non- Judicial Stamp Paper of appropriate Value to be purchased in the name of Consortium)

Know All Men By These Presents That We, the Members whose details are given hereunder..... have formed a Consortium and having our Registered Office(s)/ Head Office(s) at (here in after called the „Consortium“ which expression shall unless repugnant to the context or meaning thereof, include its successors, administrators and assigns) do hereby constitute, nominate and appoint M/s..... having its Registered/ Head Office at as our duly constituted lawful Attorney (hereinafter called “Lead Member”) to exercise all or any of the powers for and on behalf of the CONSORTIUM to participate in bid for **PROVIDING SMART SOLUTIONS TO 3 NOS. SCHOOL IN DEHRADUN INCLUDING IT SOLUTIONS, CIVIL AND ELECTRICAL WORKS THROUGH E-PROCUREMENT”** as per the Scope of Work stipulated therein for which bids have been invited by the DEHRADUN SMART CITY LIMITED, to undertake the following acts:

- (i) To submit proposal, participate and correspond in respect of the aforesaid Bid – Specification of DEHRADUN SMART CITY LIMITED on behalf of the “Consortium”.
- (ii) To negotiate with DEHRADUN SMART CITY LIMITED the terms and conditions for award of the contract pursuant to the aforesaid bid and to sign the contract with the DEHRADUN SMART CITY LIMITED for and on behalf of the “CONSORTIUM”.
- (iii) To do any other act or submit any document related to the above.
- (iv) To receive, accept and execute the contract for and on behalf of the “Consortium”.

It is clearly understood that the Lead Member shall ensure performance of the Contract and if one or any of the members fail to perform their respective portion of the Contract, the same shall be deemed to be a default by all the members.

It is expressly understood that this power of Attorney shall remain valid, binding and irrevocable till completion of the Contract period i.e., _____ from the date of execution of the Contract.

The Consortium hereby agrees and undertakes to ratify and confirm all the whatsoever the said Lead Member quotes in the bid, negotiates and signs the Contract with the DEHRADUN SMART CITY LIMITED and/ or proposes to act on behalf of the Consortium by virtue of this Power of Attorney and the same shall bind the Consortium members as if done by itself.

In Witness Thereof, the members constituting the Consortium as aforesaid have executed these present on this day ofTwo Thousand Eighteen .

for and on behalf of the member of the Consortium 1.....

Accept

..... (Signature)

(Name, Title and Address of the Attorney)

Notes:

1. The mode of execution of Power of Attorney should be 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 should be under common seal affixed in accordance with the required procedure.
2. Also, wherever required, the executant(s) should submit for verification the extract of the charter documents and documents such as a resolution / Power of attorney in favour of the Person executing this Power of Attorney for the delegation of power hereunder on behalf of the executant(s).

Annexure 11: FORMAT FOR AVERAGE ANNUAL TURNOVER

(To be submitted and signed by the Bidder’s authorized signatory)

Ref:

Date:

To
The Chief Executive Officer (CEO),
Dehradun Smart City Limited (DSCL)
777, Saatvik Tower, Rajender Nagar, Kaulagarh
Road, Dehradun – 248001, Uttarakhand

Sub: “National Competitive Bidding for PROVIDING SMART SOLUTIONS TO 3 NOS. SCHOOL IN DEHRADUN INCLUDING IT SOLUTIONS, CIVIL AND ELECTRICAL WORKS THROUGH E-PROCUREMENT”

Sir,

We hereby submit our Financial Information for the captioned project.

S.No.	Parameters	FY 2015-16	FY 2016-17	FY 2017-18
1	Annual turnover In INR.			
Average annual turnover for the last three financial year				

Note: To be certified by Statutory Auditor/ Chartered Accountant.

Authorized signatory:
Name of Authorized signatory
Name and seal of Bidder:

Date:

Place:

Annexure 12: FORMAT FOR AFFIDAVIT FOR CORRECTNESS OF BID

(To be given by the Bidder on non-judicial Stamp Paper of Rs. 100/-)

I..... S/o, Resident of the,
..... (Insert designation) of the (Insert name of the Bidder), do solemnly affirm and state as under:

1. **That** I am the authorized signatory of(insert name of company) (hereinafter referred to as "Bidder") and I am duly authorized by the Board of Directors of the Bidder to swear and depose this Affidavit on behalf of the bidder.

2. That I have submitted information with respect to our eligibility for the "National Competitive Bidding for PROVIDING SMART SOLUTIONS TO 3 NOS. SCHOOL IN DEHRADUN INCLUDING IT SOLUTIONS, CIVIL AND ELECTRICAL WORKS THROUGH E-PROCUREMENT" (hereinafter referred to as "Project") and I further state that all the said information submitted by us is accurate, true and correct and is based on our records available with us.

3. **That** I hereby affirm to furnish any information, which may be requested by Authority to verify our credentials/information provided by us under this Bid and as may be deemed necessary by Authority.

4. **That** if any point of time till the completion of all the contractual obligations, in case Authority requests any further/additional information regarding our financial and/or technical capabilities, or any other relevant information, I shall promptly and immediately make available such information accurately and correctly to the satisfaction of Authority.

5. **That** I fully acknowledge and understand that furnishing of any false or misleading information by us in Bid shall entitle us to be disqualified from the tendering process for the said Project. The costs and risks for such disqualification shall be entirely borne by us.

6. That, we fully acknowledge and understand that in case any false or misleading information, as furnished by us in our Bid, is found at a later stage after the signing of the Contract Agreement amongst Authority and (Insert name of organization), it shall entitle DSCL to terminate the said signed Contract Agreement between the Parties. The costs and risks for such termination shall be entirely borne by us.

7. That all the terms and conditions of the Tender Document have been duly complied with.

VERIFICATION:

I, the above named deponent, do verify that the contents of points 1 to 7 of this affidavit are true and correct to my knowledge. No part of it is false and nothing material has been concealed.

Verified at, on this day of....., 2019.

Contract Agreement

THIS AGREEMENT made the day of between **[name of the Authority]** (hereinafter “the Authority”), of the one part, and **[name of the Implementing Agency]**..... (hereinafter “the Implementing Agency”), of the other part:

WHEREAS the Employer desires that the Works known as.....**[name of the Contract]**.....should be executed by the Implementing Agency, and has accepted a Bid by the Implementing Agency for the execution and completion of these Works and the remedying of any defects therein,

The Employer and the Implementing Agency agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.
 - (i) the Letter of Award
 - (ii) the Letter of Bid
 - (iii) the addenda Nos _____(if any)
 - (iv) the Particular Conditions
 - (v) the General Conditions of Contract, including appendix;
 - (vi) the Specification
 - (vii) Activity Schedule and
 - (viii) any other document as forming part of the Contract,
3. In consideration of the payments to be made by the Employer to the Implementing Agency as specified in this Agreement, the Implementing Agency hereby covenants with the Employer to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Employer hereby covenants to pay the Implementing Agency in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of..... **[name of the borrowing country]** on the day, month and year specified above.

Signed by: _____
For and on behalf of the Employer

Signed by: _____
for and on behalf of the Implementing Agency

in the
presence of: _____
Witness, Name, Signature, Address, Date

in the
presence of: _____
Witness, Name, Signature, Address, Date