

REQUEST FOR PROPOSAL

for

Supply, Installation, Testing and Commissioning of Smart Classrooms (E-Pathshala) for Schools in ABD area including 5 years Comprehensive Annual Maintenance Contract (CAMC)



ISSUED BY THE

KANPUR SMART CITY LIMITED

Kanpur Nagar Nigam Mukhyalay, Motijheel

Kanpur – 208002

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SCHEDULE OF RFP PROCESS

Kanpur Smart City Limited (KSCL) would endeavour to adhere to the following schedule from the date of issue of notification during the process:

Events	Date
Proposal Due Date / last date for submission of the RFP (Hard Copy)	26/09/2018 at 4:00 PM
Proposal Due Date / last date for submission of the RFP (Online)	25/09/2018 at 4:00 PM
Due date for receiving queries	10/09/2018 at 4:00 PM
Pre-Proposal Conference	11/09/2018 at 4:00 PM at Conference Hall, Nagar Nigam Mukhyalay, Motijheel, Kanpur - 208002
Opening of Technical Bids	26/09/2018 at 4:00 PM at Conference Hall, Nagar Nigam Mukhyalay, Motijheel, Kanpur - 208002
Address for communication	Chief Executive Officer, KSCL, Nagar Nigam Mukhyalay, Motijheel, Kanpur - 208002

If any date specified herein is a holiday, then the next working day will be considered for the activity and the time will remain the same.

The Schedule indicated above is tentative and KSCL may change any or the entire schedule with prior intimation to all bidders.

Instructions for Online Bid Submission

Instructions to the Bidders to submit the bids online through the Central Public Procurement Portal for e Procurement at <https://www.etender.up.nic.in>

Possession of valid Digital Signature Certificate (DSC) and enrolment/registration of the contractors/bidders on the e-Procurement/e-tender portal are prerequisite for e-tendering. Bidder should register for the enrolment in the e-Procurement site using the “Online Bidder Enrolment” option available on the home page. Portal enrolment is generally free of charge. During enrolment/registration, the bidders should provide only valid and true information including valid email id. All the correspondence shall be made directly with the contractors/bidders through email id as registered.

Bidder need to login to the site through their user ID/ password chosen during enrolment/registration.

Then the Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by SIFY/TCS/nCode/eMudra or any other Certifying Authority recognized by Controller of Certifying Authorities (CCA) India on eToken/Smart Card, should be registered. The registered DSC only should be used by the bidder in the transactions and should ensure safety of the same.

Contractor/Bidder may go through the tenders published on the site and download the tender documents/schedules for the tenders.

After downloading/getting the tender document/schedules, the Bidder should go through them carefully and then submit the documents as required, otherwise bid will be rejected.

Any clarifications may be sought online through the tender site, through the contact details or during pre-bid meeting, if any. Bidder should take into account the corrigendum, if any published before submitting the bids online.

Bidder may log in to the site through the secured login by the user id/password chosen during enrolment/registration and then by submitting the password of the e-Token/Smartcard to access DSC.

Bidder may select the tender in which he/she is interested in by using the search option and then move it to the ‘my tenders’ folder.

From my tender folder, he may select the tender to view all the details uploaded there.

It shall be deemed that the bidder has read and understood all the terms and conditions before submitting the offer. Bidder should go through the tender schedules carefully and upload the documents as asked; otherwise, the incomplete bid shall stand rejected.

Bidder should get ready the bid documents to be submitted as indicated in the tender document/schedule in advance and ordinarily it shall be in PDF/xls/rar/jpg/dwf formats. If there is more than one document, all may be clubbed together and provided in the requested

format. Bid documents may be scanned with 100 dpi with black and white option. It is advisable that each document to be uploaded through online for the tenders should be less than 2 MB. If any document is more than 2MB, it can be reduced through zip/rar and the same, if permitted may be uploaded. The file size being less than 1 MB the transaction uploading time will be very fast.

The Bidders can update well in advance, the documents such as certificates, annual report details etc., under “My Space option” and these can be selected as per tender requirements and then send along with bid documents during bid submission. This will facilitate the bid submission process faster by reducing upload time of bids.

Bidder should submit the Tender Fee/ EMD as specified in the tender. The hard copy should be posted/couriered/given in person to the Tender Inviting Authority, within bid submission due date and time as indicated in the tender. Scanned copy of the instrument should be uploaded as part of the offer.

While submitting the bids online, the bidder shall read the terms and conditions and may accept the same to proceed further to submit the bid packets.

The bidder has to select the payment option as offline to pay the Tender FEE/ EMD as applicable and enter details of the instruments.

The details of the DD/any other accepted instrument, physically delivered, should tally with the details available in the scanned copy and the data entered during bid submission time, otherwise submitted bid shall not be acceptable or liable for rejection.

The bidder has to digitally sign and upload the required bid documents one by one as indicated. The very act of using DSC for downloading the bids and uploading their offers shall be deemed to be a confirmation that they have duly read, understood and agreed with all clauses of the bid document including General Conditions of Contract (GCC) without any exception.

The bidder has to upload the relevant files required as indicated in the cover content. In case of any irrelevant files, the bid may be rejected.

If the price bid format is provided in a spread sheet file like BoQ_XXXX.xls, the rates offered should be entered in the allotted space only and uploaded after filling the relevant columns. The Priced-bid/BOQ template shall not be modified/replaced by the bidder; else the bid submitted is liable to be rejected for the tender.

The bidders are advised to submit the bids through online e-tendering system to the Tender Inviting Authority well before the bid submission due date and time (as per Server System Clock). The Authority shall not be held responsible for any delay or the difficulties faced during the submission of bids online by the bidders.

After the bid submission (i.e. after Clicking “Freeze Bid Submission” in the portal), the acknowledgement number indicated by the system should be printed by the bidder and kept as a record of evidence for online submission of bid for the particular tender and also be used as entry pass to participate in the bid opening.

The time settings fixed in the server side and displayed at the top of the tender site, shall remain valid for all actions of requesting, bid submission, bid opening etc., in the e-Tender system. The bidders should follow such time during bid submission.

All the data being entered by the bidders would be encrypted using Public Key Infrastructure (PKI) encryption techniques to ensure the secrecy of the data. The data entered is not retrievable by unauthorized persons during the bid submission and until the time of bid opening by any person.

Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid openers’ public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.

The confidentiality of the bids is maintained with the use of Secured Socket Layer (SSL) 128 bit encryption technology. Data storage encryption of sensitive fields is done.

The bidder should logout of the tendering system using the normal logout option available at the top right hand corner and not by selecting the (X) exit option in the browser.

For any queries regarding e-Tendering process, the bidders may contact at address as provided in the tender document. Also, for any further queries, the bidders are advised to send a mail to – **ksclkanpur@gmail.com**

DISCLAIMER

The information contained in this Request for Proposal document (“RFP”) or subsequently provided to bidders, verbally or in documentary or any other form by or on behalf of the Kanpur Smart City Limited (here forth referred to as KSCL in this document) or any of its employees or advisers, is provided to bidders on the terms and conditions set out in this RFP and such other terms and conditions subject to which such information is provided.

Though adequate care has been taken while preparing this RFP, the Bidder shall satisfy himself/itself on receipt of the RFP document, that the RFP document is complete in all respects. Intimation of any discrepancy shall be given to this office immediately.

KSCL may modify, amend or supplement this RFP document. Further, this RFP does not constitute a binding offer by the KSCL nor does it constitute a contract. This RFP may be withdrawn or cancelled by the KSCL at any time without assigning any reasons thereof. It may also be noted that the RFP and/or the Agreements and other documents issued along with this RFP may be modified/amended. Such modifications/amendments, if any, shall be intimated to all the Bidders through issuance of Addendum/Corrigendum which will be uploaded in the website.

While this RFP has been prepared in good faith, neither KSCL nor its employees or advisors/consultants make any representation or warranty, express or implied, or accept any responsibility or liability, whatsoever, in respect of any statements or omissions herein, or the accuracy, completeness or reliability of information contained herein, and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of this RFP, even if any loss or damage is caused to the Bidder by any act or omission on their part.

This RFP is not an agreement and is not an invitation by the Employer to the prospective Consultants or any other person. The purpose of this RFP is to provide intending bidders with information that may be useful to them in the formulation of their Proposals pursuant to this RFP. The issue of this RFP does not imply that the Authority is bound to select a bidder or to appoint the selected bidder, as the case maybe, for the Consultancy and the KSCL reserves the right to reject all or any of the Proposals without assigning any reasons whatsoever.

This RFP includes statements, which reflect various assumptions and assessments arrived at by the Authority in relation to the Consultancy. Such assumptions, assessments and statements do not purport to contain all the information that each bidder may require.

This RFP may not be appropriate for all persons, and it is not possible for the Authority, its employees or advisers to consider the objectives, technical expertise and particular needs of

each party who reads or uses this RFP. The assumptions, assessments, statements and information contained in this RFP, may not be complete, accurate, adequate or correct. Each bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments and information contained in this RFP and obtain independent advice from appropriate sources.

The KSCL also accepts no liability of any nature whether resulting from negligence or otherwise however caused arising from reliance of any bidder upon the statements contained in this RFP.

Supply, Installation, Testing and Commissioning of Smart Classrooms (E-Pathshala) for Schools in ABD area including 5 years CAMC

PARTICULARS OF TENDER

Sl. No.	NATURE OF WORK	DESCRIPTION
1	Particular of Work	Supply, Installation, Testing and Commissioning of Smart Classrooms (E-Pathshala) for Schools in ABD area including 5 years CAMC
2	Period of completion for physical and Commissioning works including CAMC	1. Supply, Installation, Testing & Commissioning (SITC) - 6 months . 2. Comprehensive Annual Maintenance Contract - 60 months .
3	Method of Selection	Quality and Cost Based Selection (QCBS) Method • Technical Weightage : 70% • Financial Weightage : 30%
4	Availability of RFP Documents	Download from https://www.etender.up.nic.in
5	Cost of Tender Form (Non-refundable)	INR 10, 000.00 (Rupees Ten Thousand) Only
6	Bid Security/Earnest Money Deposit (EMD) (Refundable)	Rs. 6, 75,000.00 (Rupees Six Lakh Seventy Five Thousand) only.
7	Period Of Validity Of Tender	180 days from the last date of submission of the bid
8	Currency	Currency in which the Bidders may quote the price and will receive payment is INR only.

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Section-I
**Instruction to
Bidder**

1 Instruction to Bidder

1.1 Purpose

Kanpur Smart City Limited is working towards the Development of Kanpur city since its inception. Smart Cities Mission, sometimes referred to as Smart City Mission, is an urban renewal and retrofitting program by the Government of India with the mission to develop 100 cities across the country making them citizen friendly and sustainable. Some definitional boundaries are required to guide cities in the Mission. In the imagination of any city dweller in India, the picture of a smart city contains a wish list of infrastructure and services that describes his or her level of aspiration. To provide for the aspirations and needs of the citizens, urban planners ideally aim at developing the entire urban eco-system, which is represented by the four pillars of comprehensive development-institutional, physical, social and economic infrastructure. This can be a long term goal and cities can work towards developing such comprehensive infrastructure incrementally, adding on layers of 'smartness'.

Some typical features of comprehensive development in Smart Cities are described below.

1. Promoting mixed land use in area based developments–planning for ‘unplanned areas’ containing a range of compatible activities and land uses close to one another in order to make land use more efficient. The States will enable some flexibility in land use and building bye-laws to adapt to change;
2. Housing and inclusiveness - expand housing opportunities for all;
3. Creating walkable localities –reduce congestion, air pollution and resource depletion, boost local economy, promote interactions and ensure security. The road network is created or refurbished not only for vehicles and public transport, but also for pedestrians and cyclists, and necessary administrative services are offered within walking or cycling distance;
4. Preserving and developing open spaces - parks, playgrounds, and recreational spaces in order to enhance the quality of life of citizens, reduce the urban heat effects in Areas and generally promote eco-balance;
5. Promoting a variety of transport options - Transit Oriented Development (TOD), public transport and last mile para-transport connectivity;
6. Making governance citizen-friendly and cost effective - increasingly rely on online services to bring about accountability and transparency, especially using mobiles to reduce cost of services and providing services without having to go to municipal offices. Forming e-groups to listen to people and obtain feedback and use online monitoring of programs and activities with the aid of cyber tour of worksites;

7. Giving an identity to the city - based on its main economic activity, such as local cuisine, health, education, arts and craft, culture, sports goods, furniture, hosiery, textile, dairy, etc;
8. Applying Smart Solutions to infrastructure and services in area-based development in order to make them better. For example, making Areas less vulnerable to disasters, using fewer resources, and providing cheaper services.

The Kanpur Smart City Limited is striving to enhance the learning outcomes of school children using diverse techniques. One of the techniques is to empower teachers by training them to use e-content and interactive techniques. By having the right mix of the conventional blackboard based teaching along with interactive multimedia techniques, the administration believes that students will have an improved learning experience which will convert into better learning outcomes. The use of multimedia techniques in the appropriate manner shall also help slow learning students to grasp concepts in an easier way. The interaction of technology and content with students and teachers during teaching- learning process, the students will be all the more attentive to what is being taught in the class. Hence, with the overall objective of improving learning outcome in mind, Kanpur Smart City Limited intends to setup smart class rooms in the selected schools in the ABD area of Kanpur.

1.2 Bidders' Profile

1. The Bidder for participation in the Selection Process, should be a System Integrator (SI) who may be either a single entity or a group of entities (the "Consortium"), coming together to execute the project.
2. No Member at any given point of time may assign or delegate its rights, duties or obligations under the Agreement/Contract except with prior written consent of procuring entity.
3. No bidder applying individually, or as a member of a Consortium, as the case may be, can be member of another consortia bidding for the project.
4. In the event the Bidder is a Consortium, it shall, comply with the following additional requirements:
 - Number of members in a consortium shall not exceed 2 (Two) including the Lead Member.
 - The Member of the Consortium shall nominate one member as the Lead Member.
 - The Members of the Consortium shall be responsible for successful implementation of the project throughout the terms of the contract.

5. The Lead Member shall be authorized and shall be fully responsible for the accuracy and veracity of the representations and information submitted by the members respectively from time to time in the response to this tender document.
6. The Members of the Consortium shall submit a declaration as set out in Annexure 1.5 inter alia consisting of the following:
 - Undertake that each of the members of the Consortium shall have an independent definite and separate scope of work which was allocated as per each member's field of expertise.
 - Commit to the scope of work, rights, obligations and liabilities to be held by each member, specifically commit that the Lead Member shall be answerable on behalf of other members for the performance of obligations under this Agreement.
 - 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.
 - Include a statement to the effect that all the members of the Consortium shall be jointly and severally liable for all obligations in relation to the Agreement/Contract until the completion of the project in accordance with the Agreement/Contract.
7. No change of a Consortium member is allowed post submission of bid or during the course of effect of the contract agreement.
8. All members of the consortium are required to follow the highest level of work ethics, if any member of the consortium has a Conflict of Interest or indulges in Prohibited Practices; the whole Consortium is liable to be disqualified. Further, in the event any entity has been barred by the Central Government, any State Government, a statutory Procuring entity or a public-sector undertaking, as the case may be, from participating in any project or bid, and the bar subsists as on the Last Date of Submission, it would not be eligible to submit a Proposal either by itself or as part of a Consortium.

1.3 Completeness of Bid

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

1.4 Proposal Preparation Costs

- a) The bidder shall submit the bid at its own cost and expenses. Procuring entity shall not be held responsible for any cost incurred by the bidder in preparation or submission of bid or any other expenses incurred during this course of tender preparation.
- b) Submission of a bid does not entitle the bidder to claim any cost and rights over procuring entity.

- c) Procuring entity shall be at liberty to cancel any or all bids without giving any notice or incurring any liabilities.
- d) All materials submitted by the bidder shall be the property of procuring entity and no copyright etc. shall be entertained by procuring entity. All the bid submissions will be treated as confidential by the Procuring entity.

1.5 Pre-bid Meeting and Queries

- a) Procuring entity will host a Pre-Bid meeting as per the date mentioned in the tender document NIT sheet. The representatives, limited to 2, of the interested organizations may attend the pre-bid conference at their own cost. The purpose of the conference is to provide bidders with information regarding the tender document and the proposed solution requirements in reference to the tender document. Pre-Bid meeting will also provide each bidder with an opportunity to seek clarifications regarding any aspect of the tender document and the project.
- b) All Bidders shall e-mail their queries to **ksclkanpur@gmail.com** in the form and manner as prescribed in **Annexure-5**.
- c) The response to the queries will be published on the official website of KSCL and also the e-procurement portal. This response of procuring entity shall become integral part of tender document. Procuring entity shall not make any warranty as to the accuracy and completeness of responses but shall endeavor to reply the queries in good faith and without any prejudice.
- d) Procuring entity shall endeavor to respond to the questions raised or clarifications sought by the bidders. However, procuring entity reserves the right not to respond to any question or provide any clarification, in its sole discretion, and nothing in this clause shall be taken or read as compelling or requiring procuring entity to respond to any question or to provide any clarification.
- e) Procuring entity may also on its own discretion, if deemed necessary, issue interpretations and clarifications to all Bidders. All clarifications and interpretations issued by procuring entity shall be deemed to be part of the Bidding Documents.
- f) Verbal clarifications and information given by procuring entity or its employees or representatives shall not in any way or manner be construed to be binding on procuring entity.

1.6 Amendment of Tender Document

- a) All the amendments made in the document would be published on the official website of KSCL and e-tendering portal and shall be part of tender document.

- b) The bidders are advised to visit the e-tendering portal on regular basis to check for necessary updates.
- c) Procuring entity also reserves the right to amend the dates mentioned in this tender document.

1.7 Supplementary Information to the tender document

If procuring entity deems it appropriate to revise any part of this tender document or to issue additional data to clarify an interpretation of provisions of this tender document, it may issue supplements to this tender document. Any such corrigendum/addendum shall be deemed to be incorporated by this reference into this tender document.

1.8 KSCL's Right to Terminate the Process

Procuring entity may terminate the tender process at any time and without assigning any reason. Procuring entity reserves the right to amend any clause of this tender document. This will become part of the tender document and information for the same would be published on the e-Tendering portal.

1.9 Site Visit and Verification of Information

The Bidders are encouraged to visit and examine the site or sites and obtain for itself, at its own responsibility and risk, all information that may be necessary for submission of the bid and entering into the contract. The costs of visiting the site or sites shall be at the Bidder's own expense.

The appointment for site visit may be obtained two (2) days in advance and before the last date of submission of bid from the Nodal Officer, Kanpur Smart City Limited whose details are as follows:

Nodal Officer,
Kanpur Smart City Limited,
Kanpur Nagar Nigam Mukhyalay, Motijheel,
Contact No.: _____

1.10 Bid Security/Earnest Money Deposit

- a) The proposal should be accompanied by a Bid Security/Earnest Money Deposit of Rs.6,75,000.00 (Rupees Six lakh Seventy Five Thousand only). The Bid Security/EMD shall be kept valid throughout the period of 180 (one hundred and eighty) days and 45 days beyond the Proposal Validity Period including any extensions thereto and would be required to be extended further if so required by Authority. Any extension of the validity of the Bid Security/EMD as requested by Authority shall be provided within 7 (seven calendar) days prior to the expiry of the validity of the Bid Security/EMD, being extended.

When an extension of the Bid Validity Period is requested, Bidders shall not be permitted to change the terms and conditions of their Bids. KSCL reserves the right to reject the bid submitted by any Bidder who fails to extend the validity of the Bid Security/EMD in line with the provisions of this clause.

- b) The Bid Security/ EMD shall be in the form of a FDR/TDR or Bank Guarantee issued by a Nationalized/Scheduled Bank drawn in favour of the Chief Executive Officer, Kanpur Smart City Limited, payable at Kanpur as per the specified format herein. KSCL shall not be liable to pay any interest on the Bid Security/EMD so made and the same shall be interest free.
- c) The Bid Security will be returned as promptly as possible to all the unsuccessful Bidders. The Bid Security of Selected Bidder will be returned, without any interest, upon the Selected Bidder signing the Agreement and providing the Performance Security in accordance with the provisions of the Agreement. In addition to the above, KSCL will within 60 days release all Bid Securities in the event KSCL decides to terminate the bidding proceedings or abandon the Project.
- d) KSCL shall reject the bid which does not include the Bid Security/ EMD as a part of Technical Bid. KSCL shall reject the bid, if the bid submitted by the Bidder is declared non-responsive/ non-qualified/conditional by KSCL; or if the bid is not as per the Format(s) provided in the RfP document. The entire Bid Security/EMD shall be forfeited in the following cases:
- If the Bidder withdraws its bid;
 - If the Bidder withdraws its Proposal during the interval between the Proposal Due Date and expiration of the validity period of the bid;
 - If the Selected Bidder fails to submit the Performance Bank Guarantee(s) in favour of KSCL or fails to sign the Agreement within the stipulated timeframe.
 - If the Selected Bidder fails to meet any other pre-requisite for signing of Agreement as per the terms of this RFP

1.11 Bid Submission Instructions

- a) The Bidder would provide all the information as per the Bidding document. KSCL reserves the right to evaluate only those bids that are received in the required format complete in all respects and in line with the instructions contained herein.
- b) The currency for the purpose of the Bid shall be Indian Rupees.
- c) Procuring entity shall not accept delivery of bids in any manner other than that specified in this tender document. Bid delivered in any other manner shall be treated as invalid and rejected.

- d) The bidder is expected to price all the items and services sought in the tender document. 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 Contract.
- e) Procuring entity 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.

1.11.1 Envelope 1: Technical Bid shall consist of the following:

Technical Bid shall be submitted both in **Hard Copy as well as online mode**. The hard copy Proposal should be submitted in a properly sealed envelope before the deadline addressed to the Chief Executive Officer, Kanpur Smart City Limited, Kanpur Nagar Nigam Mukhalaya, Motijheel, Kanpur - 208002 and should bear the name of the project and the name of the bidder.

The entire Bid shall be submitted strictly as per the format specified in this tender document. Bids with any deviation from the prescribed format will be rejected.

Bid Submission Instructions

- a) The Technical Bid along with provided formats.
- b) Technical Proposal outlining the work plan, methodology, approach and other aspect for successful implementation of the project.
- c) Bid Security (Earnest Money Deposit) and document fee
- d) Registration Certificate of the entity
- e) Details of OEM's country of origin
- f) An undertaking from the manufacturer to supply all the equipment & spares required for till CAMC period.
- g) Performance certificates to be submitted related to project.
- h) Certificate for having achieved Turnover of not less than 5.00 Crores every year during last 3 years, etc.
- i) All other relevant submission as asked in the tender documents.

1.11.2 Envelope 2: Financial Bid shall consist of the following:

Financial proposal should be submitted in **online mode only**. Hard copy submission will not entertained and the procuring entity doesn't take any responsibility of its security and the bidder shall have no claim on it. Submission of financial bid hard copy shall be at bidder risks.

1.12 Technical Proposal Content

- a) The Technical Bid, besides the other requirements of the Tender, shall comprise of the following (not limited to):
- Technical Bid Covering Letter
 - Compliance for Technical Evaluation criteria
 - General information about the Bidder
 - Technical Solution
 - Specifications of the Physical Components
 - Specifications of the IT Components
 - Unpriced Bill of Materials (BOM) mentioning the make and model as per format provided.
 - Manpower Details
- b) Technical Proposal shall not in, anyway contain the financial proposal. The Procuring entity shall reserve the right to cancel the proposal in such event.
- c) BEC will review the technical bids of the bidders for determining whether the technical proposals are substantially responsive to the conditions of the RfP at the initial stage. Bids that are not substantially responsive are liable to be rejected.
- d) Bidders' technical solutions proposed in the bid document will be evaluated as per the requirements and guidelines specified in the RFP and technical evaluation criteria as mentioned below in this section of the RFP.
- e) Each Technical Proposal shall be assigned a technical score out of a maximum of 100 points.
- f) 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, client contact information for verification, and all others components) as required for technical evaluation.

1.13 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 shall be 180 days from the last date of submission of the bid.

1.14 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. Entire EMD shall be forfeited if any of the bidders withdraw their bid during this period.

1.15 Non-Conforming Bids

Bid may be construed as a non-conforming proposal and ineligible for consideration if it does not comply with the requirements of this tender document. If the bidder does not follow the format requested in this tender document or does not appear to address the requirements of the terms and conditions of RfP.

1.16 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 self-attested by the bidder and submitted with the bid, and English translation shall be validated at procuring entity's discretion.

1.17 Authentication of Bid

All pages of the bid and its annexure, etc. shall be signed and stamped by the person or persons signing the bid. 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.

1.18 Acknowledgement of Understanding of Terms

By submitting a Bid, each Bidder shall be deemed to have acknowledged that he has carefully read all sections of this tender document, including all forms, schedules, annexure, corrigenda and addenda (if any) hereto, and has fully informed himself as to all existing conditions and limitations.

1.19 Evaluation Process

- a) A Bid Evaluation Committee (BEC) shall evaluate the responses of the bidders. The decision of the BEC in the evaluation of responses to the tender document shall be final.
- b) No correspondence shall be entertained outside the process of negotiation/discussion with the BEC.
- c) The BEC may, at its sole discretion, ask for meetings with the Bidders to seek clarifications on their proposals and may visit bidder's site to validate the credentials/citations claimed by the bidder.
- d) The BEC reserves the right to reject any or all proposals on the basis of any deviations.
- e) Each of the responses shall be evaluated as per the criteria and requirements specified in this tender document. Inability to submit requisite supporting documents / documentary evidence, may lead to rejection.

1.20 Bid Opening

Total transparency shall be observed and ensured while opening the Bids. All bids shall be opened in the presence of bidder's representatives who choose to attend the bid opening on the specified date, time and address.

Procuring entity reserves the rights at all times to postpone a scheduled bid opening.

Bid opening shall be conducted in 2 (Two) Stages:

Stage 1 - Tender document fee & Bid Security/EMD, Pre-Qualification Proposal and technical proposal

Stage 2- Financial Proposal

The venue, date and time for opening the Technical Proposal are mentioned in the Tender Notice in the tender document. The date and time for opening the Financial Proposals would be communicated to the qualified bidders at later date.

During bid opening, preliminary scrutiny of the bid documents shall be made to determine whether they are complete, whether required EMD has been furnished, whether the documents have been properly signed, and whether the bids are generally in order and responsive to the conditions of RfP. Bids not conforming to such preliminary requirements shall prima facie be rejected. Procuring entity has the right to reject the bid after due diligence is done.

The Financial Proposals of only those bidders will be opened who scores equal to or more than 70 (Seventy) marks in Technical Evaluation as set out herein.

1.21 Evaluation Process:

1.21.1 Evaluation of Pre-Qualification Proposals

Procuring entity shall open "tender document fee and Earnest Money Deposit (EMD)". If the contents are as per requirements of the tender document and responsive to all the conditions set out in the RfP document then the bidder shall be deemed to have qualified the pre-qualification stage. Each of the Pre-Qualification condition mentioned in **Section 1.22** of the tender document is mandatory. In case the bidder does not meet any condition, the bidder will be disqualified.

Response to the Pre-Qualification Requirements shall be evaluated in accordance with the requirements specified in this tender document and in the manner prescribed in **Section 1.22** of the tender document.

1.21.2 Evaluation of Technical Proposal

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

- a) Procuring entity will review the technical bids of the pre-qualified bidders only. Bids that are not substantially responsive are liable to be disqualified at procuring entity's discretion. Conditional Proposals shall be rejected out-rightly.
- b) Bidder's technical solutions proposed in the bid document will be evaluated as per the requirements and guidelines specified in the Annexures and technical evaluation criteria as mentioned in the tender document.
- c) Bidders shall make the technical presentation and showcase proposed products/solutions to procuring entity as per the agenda mentioned in the tender document.
- d) Each Technical Proposal shall be assigned a technical score out of a maximum of 100 points (Refer **Section 1.23** of the tender document). In order to qualify for the consideration of financial proposal, the Bidder must get equal to or more than overall technical score of 70 (Seventy) points.
- e) The bidders are required to submit all required documents in support of the evaluation criteria specified (e.g. detailed project citations and copy of work order/completion certificate, client contact information for verification, and all other components) as required for technical evaluation.
- f) At any time during the bid evaluation process, BEC may, at its discretion seek written clarifications from the bidders.
- g) Procuring entity reserves the right to undertake 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.
- h) The Financial Proposals of bidders who do not qualify technically shall be kept unopened.
- i) Procuring entity reserves the right to accept or reject any or all bids without giving any reasons thereof.
- j) Procuring entity shall inform to the technically shortlisted Bidders about the date and venue of the opening of the financial proposals.

1.21.3 Financial Proposal Evaluation

All the qualified bidders will be notified to participate in financial proposal opening process. Financial Proposals for the qualified bidders will then be opened in presence of the BEC on the notified date and time and reviewed to determine whether the financial proposals are substantially responsive. Bids that are not substantially responsive are liable to be disqualified at procuring entity's discretion.

If there is a discrepancy between words and figures, the lower among the two shall be taken for consideration.

1.22 Pre-Qualification Criteria

Sl. No.	Basic Requirement	Specific Requirements	Documents Required
1	Legal Entity	The bidder (all members in case of consortium or sole bidder) should be registered in India under Companies Act, 1956/2013 or as amended and should have been in operation for at least 10 years as on date of submission of the bid.	Copy of self-attested Certificate of incorporation /registration under Companies Act, 1956/2013 or as amended.
2	Turnover	The lead member/sole bidder of consortium should have average annual turnover of minimum Rs. 5.00 Crores for last 3 audited financial years (2015-2016, 2016-17 and 2017-18).	As documentary proof, attested copy of the Audited Balance Sheet is to be submitted. The Bidder also has to provide the CA certificate specifying the same.
3	Letter of authorization from OEM	The Bidder should submit a letter of Authorisation in the form of MAF from OEM (and/or Original Software Developer for system software, database, etc.) or their authorized representative. In case of authorized representative, a letter of authorization from original manufacturer must be furnished.	Letter of authorization on the OEM letter head
4	Local Service Centres	The Bidder should have presence and support centre in Kanpur. The Bidder should have technical manpower with experience to provide service at locations for support under this contract.	A Self declaration by an authorized signatory
5	Technical Experience	The lead bidder or any member of its consortium should have successfully implemented at least 150 classrooms till the last year that involves smart classroom solution of supply, installation, integration, support and maintenance etc. as per scope of tender document.	Customer reference on their official letter head
6		The Lead Bidder or any consortium members, should have at least 20 technical resources on its payroll as on the date of submission of the bid having prior experience in implementation of ICT projects preferably Smart School/Smart Education System/Digital Classroom with Learning Management System (at-least 5 should mandatorily have	Copy of Work Order and Client certificate signed by a competent authority clearly stating the scope, current status and the contact details of the reference person.

		experience in Smart School/Smart Education System)	
7	Blacklisting	The lead bidder or any member of its consortium should not be blacklisted by Central/State Government/ PSU entity in India or similar agencies globally for unsatisfactory past performance, corrupt, fraudulent or any other unethical business practices as on date of submission of the proposal.	Undertaking by the authorized signatory as per the format given as in the Annexure

1.23 Technical Evaluation Criteria

Sl. No	Evaluation Criteria	Max Marks	Supporting Documents
1	ORGANISATIONAL STRENGTH	10	
1.1	Financial Capability – Annual Turnover – The lead bidder or any member of its consortium should have an average annual turnover for the period FY 2015-2016, 2016-17 and 2017-18	5	As documentary proof, attested copy of the Audited Balance Sheet is to be submitted. The Bidder also has to provide the CA certificate specifying the same.
1.2	ISO 9001 & ISO 20000 Certification <ul style="list-style-type: none"> ISO 29990 for educational services and training ISO 9001:2000 for quality management ISO 35.020 for IT general aspects including equipment 1 mark for each certification.	5	Copies of the valid ISO Certificate to be attached
2	RELEVANT PAST EXPERIENCE	50	
2.1	The lead bidder or any member of its consortium should have successfully implemented smart classrooms during last three year. More than 300 Smart Classrooms: 10 Marks More than 200 but less than 300 Smart Classrooms: 7 Marks More than 100 but less than 200 Smart Classrooms: 5 Marks	10	Copies of contract, work order, client certificates, etc.
2.2	The lead bidder or any member of its consortium should have successfully implemented web applications for Smart School / Smart Classroom solution or similar type of work. Such project should have been performed during the last three years. More than 300 Web Applications: 10 Marks More than 200 but less than 300 Web Applications: 7 Marks More than 100 but less than 200 Web Applications: 5 Marks	10	Copies of contract, work order, client certificates, etc.

2.3	The lead bidder or any member of its consortium should have successfully implemented Interactive Module in a variety of classes as per syllabus. Contract should cover implementation of smart classroom content and smart classroom boards, etc. Such implementation should have been done within the last three years. More than 300 Interactive Module: 10 Marks More than 200 but less than 300 Interactive Module: 7 Marks More than 100 but less than 200 Interactive Module: 5 Marks	10	Copies of contract, work order, client certificates, etc.
2.4	The lead bidder or any member of its consortium should have provided trainings to teachers and students in topics related to smart classrooms within the last three years More than 300 Training: 10 Marks More than 200 but less than 300 Training: 7 Marks More than 100 but less than 200 Training: 5 Marks	10	Copies of contract, work order, client certificates, etc. These may be supported by a self-declaration stating the trainings provided and a brief outline content thereof.
2.5	The lead bidder or any member of its consortium should have successfully implemented smart classrooms (Hardware and Software) in multiple schools in a single contract. These schools should be in different locations. However, they can be branches of same school. 1 school – 2 mark 2 school – 4 mark 3 school – 6 mark 4 school – 8 mark 5 school – 10 mark	10	Copies of contract, work order, client certificates, etc.
3	APPROACH & METHODOLOGY	25	Understanding of the Solution as per the RFP and Functional architecture of the components proposed
3.1	Detailed Approach	10	Proposal submitted
3.2	Work Plan including O&M approach	5	Proposal submitted
3.3	Training Plan	5	Training plan submitted
3.4	Innovative Ideas in project execution	5	Documentation submitted
4	TECHNICAL PRESENTATION	15	
4.1	Technical Presentation shall cover: Plan for implementation of Smart Classrooms, Content Software Presentation, Training & Hand hold Support Plan, Proposed Revenue Model etc.	15	KSCL appointed panel (BEC) will evaluate the presentations.
Total		100	

Bidder(s) will be called for the demonstration of the proposed system at KSCL.

Marks shall be evaluated both the bidder for each and every criteria except financial capabilities.

70% minimum score to be eligible for financial bid opening.

1.24 Technical Compliance Matrix

S. No.	Functional Feature /Requirement	Compliance (Y/N)	Remarks	Page Number
1	<p><u>Consortium:</u></p> <p>(a) Consortium is allowed upto 2 Partners i.e. Lead bidder + 1 partners</p> <p>(b) The members of the consortium shall enter into a Memorandum of Understanding (MoU) for the purpose of submitting the proposal and designate one of the members as the Prime/ lead bidder. The bid shall be submitted by the1 lead bidder only, who shall also be the majority stakeholder in the consortium.</p> <p>(c) MoU / Letter of Association amongst Consortium members must be furnished with the Technical bid along with agreement between Consortium member defining their roles and responsibility for this project only</p> <p>(d) Power of Attorney for Lead Member of Consortium (prime bidder) should be signed by consortium partner(s).</p>			
2	<p>The Bidder (Prime bidder in case of consortium) should be Service based Company/Firm registered in India and operational in the domain of 2 Education sector for at least last 5 (five) years. Self-attested copies of Incorporation/Registration certificate along with MoA (or similar document) should be furnished as documentary proof one of the consortium Member should be in domain of education sector for at least last 3 Years</p>			
3	<p>The bidder (prime bidder in case of consortium) should have average minimum annual turnover of Rs. 5crore (Rupees Five crore only) in the last 3 financial years As documentary proof, attested copy of the Audited Balance Sheet to be submitted. The prime bidder also has to provide the CA certificate specifying that the bidder has minimum 3 average Rs1crore of revenue from the business of smart class operations and IT enabled educational solutions.</p>			
4	<p>The bidder (prime bidder, in case of a consortium) must be company with positive net worth in each of the last three preceding financial years. The prime bidder must</p>			

	attach self-attested copies audited accounts or CA certificate as supporting documents. Un-audited accounts will not be considered.			
5	The bidder (prime bidder, in case of a consortium) must have a positive net worth of at least Rs. 5 5crore (Rupees five Crore only) as on 31.03.2018. The prime bidder must attach self-attested copies of audited accounts or CA certificate as supporting documents for this purpose.			
6	The bidder (or at least one consortium partner, if in consortia) should have successfully implemented complete integrated software solution covering syllabi of standard 1 to 10 (full cover age of Science, Mathematics, Social Studies and English) and Standard 11 to 12 (Mathematics, Physics, Chemistry, Biology, Arts and Commerce) of at Uttar Pradesh Board for smart classrooms and should have full ownership and Intellectual Property Rights (IPR) of software solution. Customer references on their letterheads and self-declaration for IPR and ownership should be submitted.			
7	The bidder (including all members of the consortia) shall not be under a declaration of ineligibility for corrupt or fraudulent practices and should not be black listed by any State Government, Central Government or any other Public Sector undertaking on the date of Bid Submission. An undertaking to this effect should be submitted by the bidder (Lead bidder, in case of consortia) on its letter head.			
8	The Bidder (Prime bidder in case consortium) should be authorized by OEM for IT and non- IT equipment (in respect of each product and its services) to quote against this tender. The MAF (Manufacturer's/ OEM Authorization Form) should be submitted by the lead bidder, in case of a consortium			
9	The consortium must be a registered under any State's/UT's Commercial Tax Act / GST or Central Tax Act which must be quoted in the bid. The bidder must have paid all applicable State's/UT's Commercial Tax Act / GST or Central Tax Act till year 2017-2018. Self-attested documentary proof is to be submitted.			
10	The bidder (or at least one consortium partner, if in consortium) must have on its roll at least Domain experts (Education field – Minimum qualification – Post			

	graduation/graduation) and technically qualified professionals in the area of Project Management, Electronics Solutions, Software Application development, System Integration and Networking and providing the services, Self-Declaration of HR head of the company clearly mentioning the name of employees, their qualifications and experience should be submitted. Combined total of all the consortia members to meet this requirement will not be acceptable.			
11	The lead bidder should submit valid letter from the OEMs confirming following: (a) Authorization letter from OEM / Technology partner mentioning the support for 5 years including Spares, Software upgrades, after "Go-live" (b) Technology partner letter confirming Products quoted are not end-of-life/ end of sale for a period of 01 Year from the date of submission of the bid			
12	The Lead bidder/ consortium must provide a list of places where such systems have been installed and/or are being maintained by him with their configuration and with the references, Work order or purchase order copies etc. The bidder is required to provide assurance to arrange for a demo at such place in case the tender evaluation committee needs to evaluate the performance of the Installation.			
13	Bidders are advised to study all instructions, forms, terms, requirements and other information in the RFP documents carefully. Submission of bid shall be deemed to be done after careful study and examination of the RFP document with full understanding of its implications.			
14	The response to this RFP should be full and complete in all respects. Failure to furnish all information required by the RFP documents or submission of a proposal not substantially response to the RFP documents in every respect will be at the bidder's risk and may result in rejection of its proposal and forfeiture of the bid EMD. The decision of the CEO, KSCL, and Kanpur in this regard is final and binding on all bidders.			
15	<u>Content Registration:</u> The educational platform must allow content should be registered to use the e-Learning contents for a particular grade			

16	<u>Administration</u> : The educational platform must allow administrator to manage user registrations and profiles, define digital content access, and manage content, view reports in an offline environment			
17	<u>UP State Board Content</u> : The educational platform should cover all content related to Class I to Class XII for subjects of the UP state board in Hindi.			
18	<u>Question Bank</u> : The educational platform should have interactive MCQ/Fill in the blanks/Drag and Drop etc. type questions for the available academic structure.			
19	<u>Teacher can create Question Bank</u> : Teacher should be able to add additional questions to the available academic structure and contribute towards creation of Question Bank.			
20	<u>Lesson Planning</u> : The Educational Platform should have notes feature to do Lesson Planning and execution for a specific subtopic within a topic/chapter.			
21	<u>Support blended learning</u> : The Educational Platform should offer a curriculum that mixes classroom and online digital contents easily. The Educational Platform should be able to handle audio and video contents.			
22	<u>Content integration features</u> : Apart from supporting the vendor's own digital contents, the Educational Platform should provide native support to a wide range of third-party contents also.			

1.25 Eligible Goods and Services, and OEM Criteria

- 1.25.1 The Bidder should be authorized by OEM for IT and non- IT equipment (in respect of each product and its services) to quote against this tender. The MAF (Manufacturer's/ OEM Authorization Form) should be submitted by the lead Bidder, in case of a consortium.
- 1.25.2 The bidder shall bear all the statutory levies like customs, insurance, freight, etc. applicable on the goods during their shipment from respective manufacturing/shipment site of the OEM to the port of landing.
- 1.25.3 All charges including transportation charges that may be applicable till the goods are delivered at the respective site of installation shall also be borne by the bidder.
- 1.25.4 The bidder should take a specific insurance policy from a Third party for the Project providing insurance coverage against loss of or damage to etc.
- 1.25.5 The Bidder shall quote only one specific make and model from only one specific OEM, for each of the goods. Providing more than one option shall not be allowed and considered non-responsive. All goods quoted by the Bidder must be associated with item code and names and with printed literature describing configuration and functionality. Any deviation from the printed specifications should be clearly mentioned in the offer document by the Bidder.
- 1.25.6 The OEM for each products or technology quoted should be in the business of that product or solution or technology for at least 3 (Three) years as on the date of release of the RFP.
- 1.25.7 All the OEMs should have authorized presence in India either directly or through channel partner(s) as on the date of release of RFP.
- 1.25.8 The OEM for all active components should give a declaration that products or technology quoted are neither end-of-sale nor end-of-life as on the date of installation and commissioning and are not end-of-support till the successful completion of O&M period of the project.
- 1.25.9 The bidder's proposed OEM should not have been blacklisted by any State /Central Government Department or Central /State PSUs as on bid submission date.
- 1.25.10 Adequate supporting documents pertaining to the above points, along with a summary compliance table, should be submitted in the proposal by the Bidder.

1.25.11 Award Criteria

The cost indicated in the Financial Proposal 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 Terms of Reference 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 Law as applicable. The lowest Financial Proposal (F_M) will be given a financial score (F_s) of 100 points.

Financial Proposals will be determined using the following formula:

$$F_s = (F_M/F) * 100$$

F_s: Financial Score

F_M: Lowest Financial Proposal

F: Financial Bid of Bidder under consideration

Proposals will be finally being ranked in accordance with their combined Technical Score (Ts) and Financial Score (Fs):

$$B_s = T_s * 0.70 + F_s * 0.30$$

B_s: Bid Score

T_s: Technical Score

F_s: Financial Score

1. Bidder achieving the highest combined technical and financial score will be declared as the successful bidder and will be issued the Letter of Intent (LoI).
2. If there is more than one bidder achieving (combined technical and financial score) the equal score, procuring entity reserves the right to select the Bidder(s) and that will be binding on all bidders.

1.26 Letter of Intent

Prior to the expiration of the period of bid validity, procuring entity 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. LOI will constitute the formation of the contract. Upon the successful bidder's furnishing of Performance Bank Guarantee, procuring entity shall enter into the agreement within 15 days of issue of LoI.

1.27 Signing of Contract

Procuring entity shall notify the successful bidder that its bid has been accepted. The successful bidder shall enter into contract agreement with procuring entity within the time frame mentioned in the Letter of Intent issued to the successful bidder by procuring entity.

1.28 Failure to Agree with the Terms & Conditions of the tender document / Contract

Failure of the successful bidder to agree with the Terms & Conditions of the tender document / Contract shall constitute sufficient grounds for the annulment of the award, in which event procuring entity may invite the next best bidder for negotiations or may call for fresh tender document.

1.29 KSCL's right to accept any bid and to reject any or all bids

Procuring entity reserves the right to accept or reject any bid and to annul the bidding process 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 procuring entity's action.

1.30 Performance Bank Guarantee (PBG)

Within fifteen (15) working days from the date of issuance of LOI, the Successful Bidder shall at his own expense submit unconditional and irrevocable Performance Bank Guarantee (PBG) an amount equivalent to 10% of contract value to procuring entity.

The PBG shall be from a Nationalized Bank or a Scheduled Commercial Bank in the format prescribed in the Annexures, payable on demand, for the due performance and fulfilment of the contract by the bidder.

All charges whatsoever such as premium, commission, stamp duty etc. with respect to the PBG shall be borne by the Successful Bidder.

The PBG shall be valid till satisfactory completion of Post Implementation Support. The PBG may be discharged/returned by procuring entity upon being satisfied that there has been due performance of the obligations of the bidder under the contract. However, no interest shall be payable on the PBG.

In case the project is extended after the project schedule as mentioned in the tender document, the PBG shall be accordingly extended by the Successful Bidder till the extended period.

In the event of the bidder being unable to service the contract for whatever reason procuring entity would invoke the PBG. Notwithstanding and without prejudice to any rights whatsoever of procuring entity under the contract in the matter, the proceeds of the PBG shall be payable to procuring entity as compensation for any loss resulting from the bidder's failure to complete its obligations under the Contract. Procuring entity shall notify the bidder in writing of the exercise of its right to receive such compensation within 14 days, indicating the contractual obligation(s) for which the bidder is in default.

Procuring entity shall also be entitled to make recoveries from the bidder's bills, PBG, or from any other amount due to him, the equivalent value of any payment made to him due to inadvertence, error, collusion, misconstruction or mis-statement.

On satisfactory performance and completion of the order in all respects and duly certified to this effect by procuring entity, Contract Completion Certificate shall be issued and the PBG would be returned to the Successful Bidder.

1.31 Right to Vary Quantity

The Contract Amount shall be fixed for the term of the Contract. At the time of award of contract, the quantity of goods, works or services originally specified in the bidding documents may be increased or decreased. It shall be without any change in the unit prices or other terms and conditions of the Bid and the bidding documents. The variation in quantity shall be limited to $\pm 15\%$.

KSCL shall have the right to make any changes, modifications, deviation and change in location of installation of equipment and reduction in scope of agency's work prior to and/or after award of work. Agency shall consider such written requests and act accordingly in the matter.

The payment shall be made as per actual installation.

CAMC payment to be made on satisfactory performance certificates to be submitted by the Principal of the respective schools.

1.32 Warranty & Maintenance

Successful Bidder shall also provide complete CAMC support with consumables for all supplied hardware, software and other components as outlined in this tender document for a period of 60 months from the date of Go-Live.

During the CAMC 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.

Procuring entity or its designated representatives shall promptly notify successful bidder in writing of any claims arising under this CAMC. Upon receipt of such notice, the successful bidder shall, within the CAMC period and with all reasonable promptness repair or replace the defective systems, without any costs incurred to the procuring entity and within time specified and acceptable to procuring entity.

If the successful bidder, having been notified, fails to remedy the defect(s) within the period specified in the contract, procuring entity may proceed to take such reasonable remedial action as may be necessary at the Successful Bidder's risk and expenses and without prejudice to any other rights, which procuring entity may have against the bidder under the contract.

During the comprehensive warranty period, the successful bidder shall provide all product(s), patches/fixes, and version upgrades within 15 days of their availability and should carry out installation and make operational the same at no additional costs to procuring entity. The successful bidder hereby warrants procuring entity that:

- The supplied hardware & software meets all the requirements as outlined in the tender document.
- The proposed Hardware & Software shall achieve parameters specified in the technical specification/requirement.
- Before procuring the materials contractor should approve the technical data sheet for all equipment and materials as per tender documents/BOQ/technical specification.

The Successful bidder shall be responsible for warranty & maintenance services with consumables from licensors of products included in the systems.

The Successful bidder shall ensure the maintenance of the acceptance criterion/standards in respect of the systems during the CAMC and maintenance period.

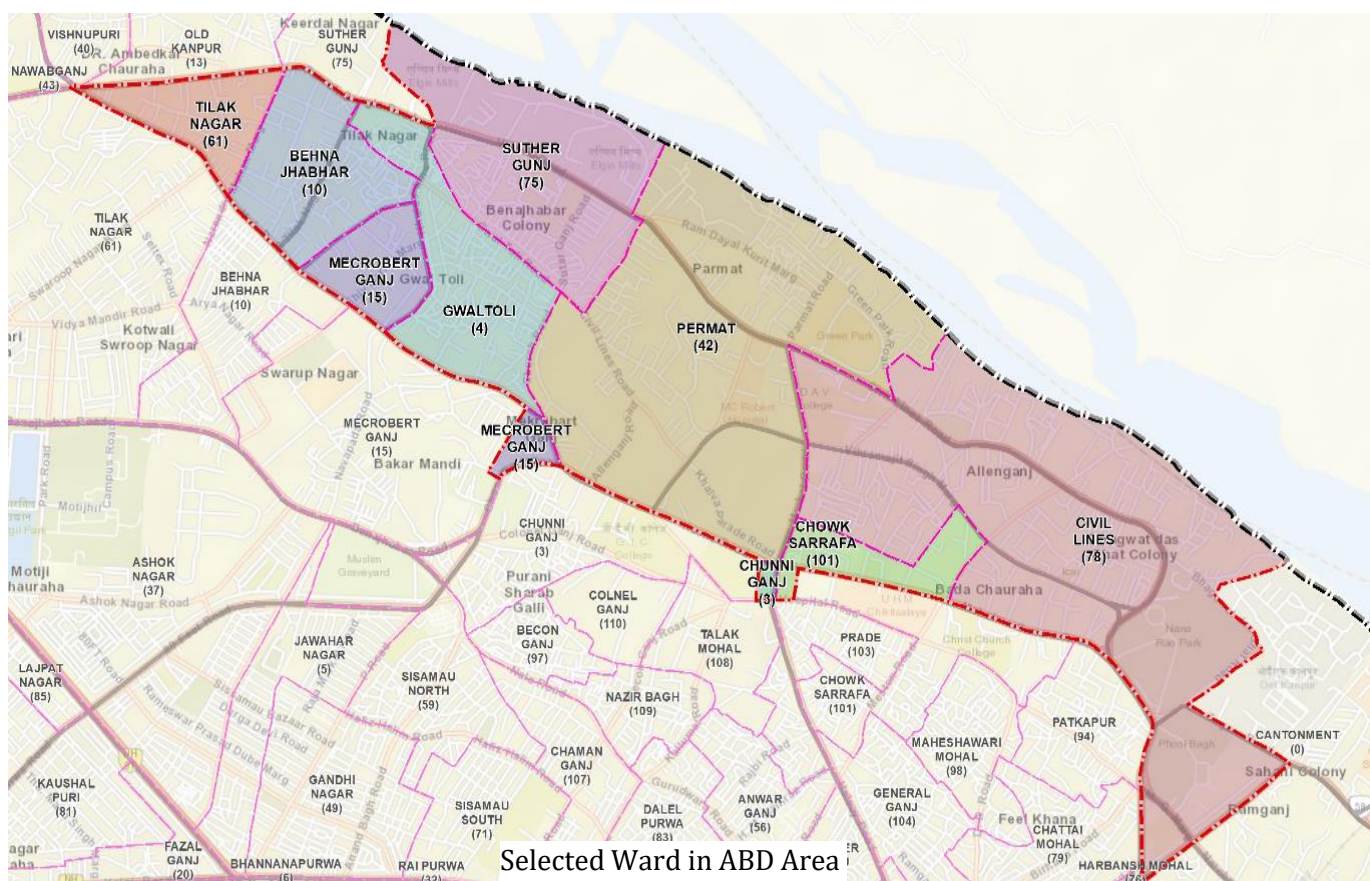
Section-II
**Scope of
Work & Term
of Reference**

2 Scope of Work and Terms of Reference

2.1 Introduction

List of Select Wards in ABD Area

S.No	Ward Name	Ward No
1	Tilak Nagar	61
2	Bena Jhabar	10
3	Mecrobart Ganj	15
4	Suther Ganj	75
5	Gwaltoli	04
6	Permat	42
7	Chunni Ganj	03
8	Civil Lines	78



2.2 Background

The Education System which evolved first in ancient India is known as the Vedic System. The importance of education was well recognized in India, '**Swadeshe pujyate raja, vidwan sarvatra pujyate**' - "A king is honoured only in his own country, but one who is learned is honoured throughout the world." The ultimate aim of education in ancient India was not

knowledge, as preparation for life in this world or for life beyond, but for complete realization of self. The Gurukul System fostered a bond between the Guru & the Shishya and established a teacher centric system in which the pupil was subjected to a rigid discipline and was under certain obligations towards his teacher. The world's first university was established in Takshila in 700 BC and the University of Nalanda was built in the 4th century BC, a great achievement and contribution of ancient India in the field of education. Science and Technology in ancient and Medieval India covered all the major branches of human knowledge and activities. Indian scholars like Charaka and Susruta, Aryabhata, Bhaskaracharya, Chanakya, Patanjali and Vatsayayna and numerous others made seminal contribution to world knowledge in such diverse fields as Mathematics, Astronomy, Physics, Chemistry, Medical Science and Surgery, Fine Arts, Mechanical and Production Technology, Civil Engineering and Architecture, Shipbuilding and Navigation, Sports and Games. The Indian Education System helped in preserving ancient culture and promoting cultural unity and infused a sense of responsibility and social values. The ancient Indian Education System has been a source of inspiration to all educational systems of the world, particularly in Asia and Europe.

India recognizes education as a Fundamental Right of a child and makes appropriate provisions in its Constitution to impart the same. The Right of Children to **'Free'** and **'Compulsory'** Education (RTE) Act, 2009 ensures that every child in the age group Of 6 – 14 years has a right to full time elementary education of satisfactory and standard quality in a formal school that fulfils essential norms and standard as per the requirements. The RTE Act came into effect on 1st April 2010.

As per the RTE Act, 'Free education' means that no child, other than a child who has been admitted by his or her parents to a school which is not supported by the appropriate Government, shall be liable to pay any kind of fee or charges or expenses which may prevent him or her from pursuing and completing Elementary Education. 'Compulsory Education' casts an obligation on the appropriate Government and local authorities to provide and ensure admission, attendance and completion of elementary education by all children in the 6-14 age group".

As per the Annual Status of Education Report (ASER) 2012, 96.5% of all rural children between the ages of 6-14 were enrolled in school. The Fourth Annual Survey reports enrolment above 96%. 83% of all rural 15-16 year olds were enrolled in school. However, going forward, India will need to focus more on quality.

Education leads to individual freedom and empowerment, which yields significant societal development gains and makes an individual self-reliant. It is seen as the foundation of society, enabling economic wealth, social prosperity and political stability. Education is,

therefore, increasingly being viewed as a Fundamental Right across the globe and essential for the exercise of all human rights. All individuals are entitled to education.

Elementary education forms the foundation for all levels of learning and development. It empowers and equips individuals with analytical capabilities, instils confidence and fortifies them with determination to achieve goal setting competencies. It therefore plays pivotal role in improving the socio-economic condition of the nation. For any country to grow, it is imperative that it has in place a strong elementary school-driven education system.

Evolution and brief about different Educational Programme

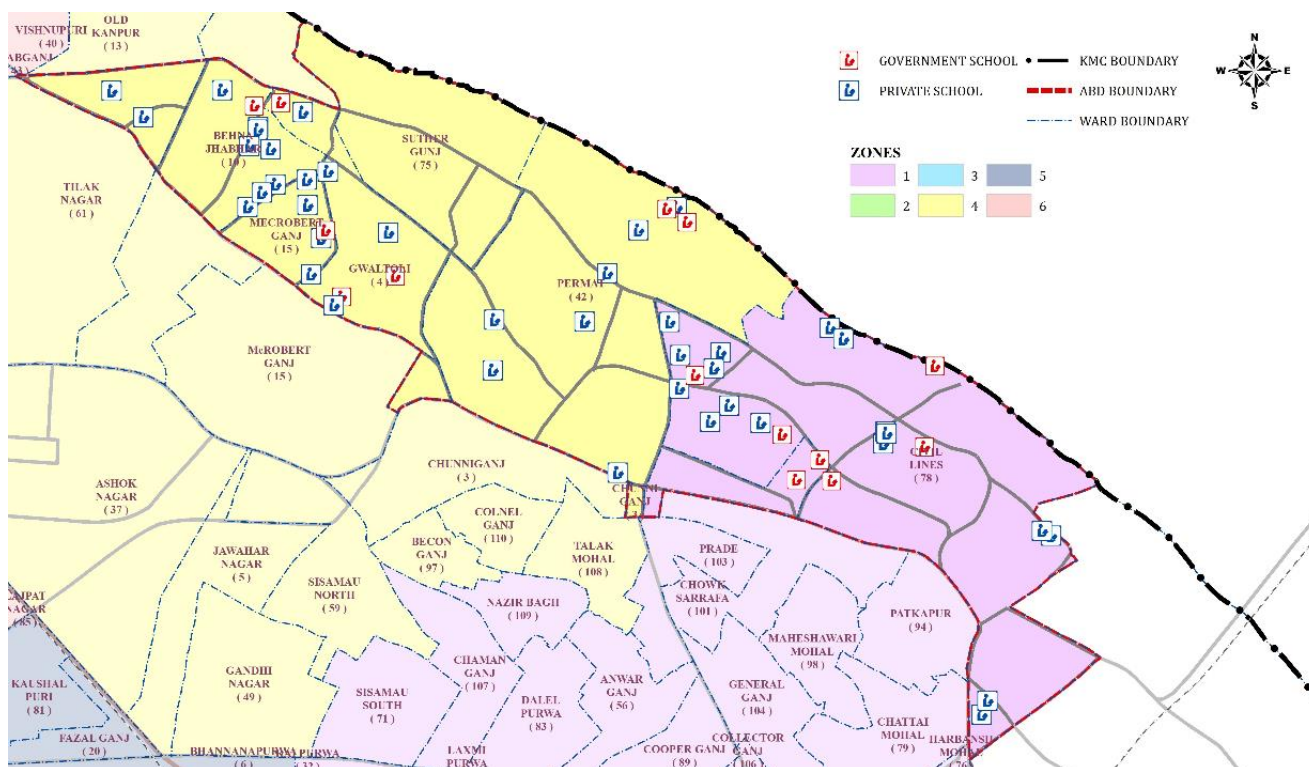
In accordance with the Constitutional commitment to ensure free and compulsory education for all children up to the age of 14 years, provision of universal elementary education has been a salient feature of National Policy since Independence. This resolve has been spelt out emphatically in the National Policy of Education (NPE) and the Programme of Action (POA) 1992. A number of schemes and programmes were launched in pursuance of the emphasis embodied in the NPE and the POA. These included the various scheme and programs-

S.No	Name	Zone No	Ward No	Govt./ Pvt.
1	Nagar Nigam School	4	42	Govt.
2	Nagar Mahapalika	4	42	Govt.
3	Kanpur Nagar Nigam Mahila School	4	10	Govt.
4	Basic Girls School	4	15	Govt.
5	Gopinath Higher Secondary School	4	4	Govt.
6	Inter Collage	4	4	Govt.
7	Gyan Vidya Mandir School	4	4	Govt.
8	Bagwan Shiksha Sadan School	1	78	Govt.
9	G.N.K. Shishu Mandir School	1	78	Govt.
10	Nagar Nigam Sageet Vidayala	1	78	Govt.
11	Knp Nursury School	1	3	Govt.
12	Nagar Maha Palika School	1	78	Govt.
13	Gandhi Sangeet College	1	3	Govt.
14	Nagar Nigam Mahila Inter College, Civil Lines, Kanpur	1	78	Govt.
15	Nagar Nigam Mahila Inter College, Tilak Nagar, Kanpur	4	10	Govt.
16	B N S D Inter College Chunni Ganj Kanpur	4	3	Govt.
17	Shri Kailash Nath Balika Vidyalaya Inter College Kanpur	1	78	Govt.
18	A J N Girls Inter College, Tilak Nagar, Kanpur	4	61	Govt.
19	D H D Girls Inter College, Mcrobert Ganj, Kanpur	4	15	Govt.
20	Naga Nigam Balika Inter College, Chunniganj Kanpur	4	3	Govt.
21	Centerl Vidhya School	4	10	Private
22	City Board School	4	15	Private
23	Lokseva Mandal Jr. High School	4	10	Private
24	Kanvant School	4	42	Private
25	Ephiphany Girl's Jn. H. School	4	42	Private
26	Junior Public School	4	42	Private
27	United Public School	4	42	Private
28	Sharda Devi Vidhya Mandir	4	42	Private
29	Kids Care Academy	4	42	Private
30	Handson School	4	42	Private

E-Pathshala (Smart Classroom)

31	Global Education Center	4	61	Private
32	Samrath Vidya Soceity	4	10	Private
33	Parishadiya Vidhyalya	4	10	Private
34	Model School	4	15	Private
35	English Medium School	4	15	Private
36	Ailanhouse School All India Faideration Education	4	15	Private
37	Kidergarten School	4	10	Private
38	Little Angles School	4	10	Private
39	Pandit Puran Charan School	4	10	Private
40	Model Inter College	4	15	Private
41	Krishna Devi Girls Junior School	4	4	Private
42	Saraswati Vidya Mandir	4	4	Private
43	Purushtom Das School	4	4	Private
44	S.N. Sen Balika Vidyalaya	1	78	Private
45	P.P.N.Memorial School	1	78	Private
46	Junior Vamik School	1	78	Private
47	Sunshine Public School	1	78	Private
48	Skylark Primary Schoool	1	78	Private
49	Hudard Junior High School	1	78	Private
50	Maria Meriman School	1	78	Private
51	D.A.V Inter College	1	78	Private
52	U.N.I Sanstha School	1	78	Private
53	Jacks Jill School	1	78	Private
54	Oef Primary School	1	78	Private
55	Oef Inter College Playground And Cycle Stand	1	78	Private
56	Iced School	1	78	Private
57	Kangaroo Kids Play School	1	78	Private
58	D.A.V Play Ground	1	78	Private
59	Shri Kalesh Nath Valika Vidhyalaya	1	78	Private
60	Junior Girls Scholl	1	78	Private
61	Mahila Udharak Shaba	1	78	Private

2.3 Information and Communication Technology (ICT) in School



Education

The Information and Communication Technology (ICT) in schools have been subsumed in the Rashtriya Madhyamik Shiksha Abhiyan (RMSA). Now, ICT in Schools is a component of the RMSA. The Information and Communication Technology (ICT) in Schools was launched in December 2004 and revised in 2010 to provide opportunities to secondary stage students to mainly build their capacity on ICT skills and make them learn through computer aided learning process. The Scheme is a major catalyst to bridge the digital divide amongst students of various socio economic and other geographical barriers. The Scheme provides support to States/UTs to establish computer labs on sustainable basis.

2.4 Implementation Mechanism of the Scheme

The Information and Communication Technology (ICT) at schools' Scheme was launched in December 2004, to build capacity of secondary students on ICT skills make them learn through computer aided learning processes. This Scheme is a major catalyst to bridge the digital divide amongst students of various socio-economic and other geographical barriers. The Scheme provides support to States/UTs to establish computer labs on sustainable basis. It also aims to set up Smart Schools in Kendriya Vidyalaya and Navodaya Vidyalaya which are pace setting institutions of the Government of India to act as "Technology Demonstrators" and lead in propagating ICT skills among students of neighbourhood schools.

2.5 Components of the Scheme

The Scheme essentially has four components: -

- Partnership with State Governments and UT Administrations for providing computer aided education to secondary and higher secondary Government and Government aided schools.
- Establishment of Smart Schools, which shall be technology demonstrators.
- Teacher related interventions, such as provision for engagement of an exclusive teacher, capacity enhancement of all teachers in ICT and a Scheme for National ICT Award as means of motivation.
- Development of e-content, mainly through Central Institute of Education Technology (CIET), six State Institutes of Education Technologies (SIETs) and 5 Regional Institutes of Education (RIEs), as also through outsourcing.

The point of paramount importance is the fact that if teachers don't create E-Content, either no one else can or somebody else will. Of course, the task of developing E-Content or Knowledge Packaging necessitates collaborative efforts by technologists and academics. In this context, the following observation of Vladimir Kinelev (2005) needs attention, "ICTs have not eliminated the most pressing of problems that education systems face. Attempts to improve education through ICTs suffer from the absence of sound education paradigms". It is here that the teacher with clarity in content and depth in pedagogy assumes a pivotal role in creating the right instructional design and in creating appropriate content in effective manner.

History as a subject plays a major role in relating to students how our culture, customs, the destructions and development of each nation. Such a subject is facing a major setback. Very few students are opting for History, as the methodology used for teaching History is still traditional chalk and talk method. Students feel it is tedious to learn the dates and various events. Learning History in Higher Secondary level is not considerably large at present. This means that the pupil's attitude towards selecting subject like History is not appreciably large in number. This is not a simple statement and it is an acceptable truth from the teachers' side as well as students' side. When the investigator tending to find the real curse of this major problem, the following are some of the arbitrary reasons among the learners' side, viz., the value and depth of the subject cannot be realized by the learners since it is entirely new subject when the pupils come from high school level to higher secondary level there is no attractive methods to teach/learn the subject joyfully, the learners think that the scope of the subject is very less, also the learner have unfaith on employability and the resources to be utilized to impart the subject is nor appropriately provided by the schools. The teachers must certainly try some attractive methods to teach the subject joyfully. In order to provide

an effective method in teaching Social science the investigator decided to develop the E-content material on social science to teach at IX standard level and further to analyse the effectiveness.

2.6 Challenges and Issues

According to National Policy on ICT 2012, The Major challenges & issues in education System of Schools are as Follows:

2.7 Challenges before the Education System in Schools

Concerns of reach and access to education continue to attract widespread attention of all segments of society. Following sustained initiatives spread over many decades, the country can today boast of perhaps one of the largest ever schooling systems. With increased throughput, and ever increasing numbers of students aspiring for higher education, concerns of equity in education and issues of quality have also begun to attract attention.

The challenge of developing alternate modes of education, continuing education, teacher capacity building, and information systems for efficient management of the school system are being addressed. With Information and Communication technologies becoming more accessible, reliable and mature, the prospect of leveraging ICT for education is becoming increasingly feasible.

2.7.1 Information and Communication Technologies in Schools

Information and Communication Technologies have enabled the convergence of a wide array of technology based and technology mediated resources for teaching learning. It has therefore become possible to employ ICT as an omnibus support system for education. The potential of ICT to respond to the various challenges the Indian education system poses are:

- ICT can be beneficially leveraged to disseminate information about and catalyze adaptation, adoption, translation and distribution of sparse educational resources distributed across various media and forms. This will help promote its widespread availability and extensive use.
- There is an urgent need to digitize and make available educational audio and video resources, which exist in different languages, media standards and formats.
- Given the scarcity of print resources as well as web content in Indian languages, ICT can be very gainfully employed for digitizing and disseminating existing print resources like books, documents, handouts, charts and posters, which have been used extensively in the school system, in order to enhance its reach and use.
- ICT can address teacher capacity building, ongoing teacher support and strengthen the school system's ability to manage and improve efficiencies, which have been difficult to address so far due to the size of the school system and the limited reach of conventional methods of training and support.
- Using computers and the Internet as mere information delivery devices grossly underutilizes its power and capabilities. There is an urgent need to develop and deploy a large variety of

applications, software tools, media and interactive devices in order to promote creative, aesthetic, and analytical and problem solving abilities and sensitivities in students and teachers.

2.8 ICT Literacy and Competency Enhancement

The policy defines ICT Literacy in terms of levels of competence. Based on the stage of schooling at which a student or teacher is introduced to ICT, they may progress to different levels. These levels are suggestive and adaptations must be made to suit local conditions. The levels do not correspond to specific classes (for e.g., sixth or seventh standard) and time duration must also be locally determined. Also, these levels must be revised periodically to keep pace with changing technology.

Stage 1: Basic

Basics of computers and basic use of tools and techniques – operate a computer, store, retrieve and manage data, use a computer to achieve basic word and data processing tasks; connect, disconnect and troubleshoot basic storage, input and output devices Connect to the internet, use e-mail and web surfing, use search engines, keep the computer updated and secure, operate and manage content from external devices (sound recorders, digital cameras, scanners etc.); connect, disconnect, operate and troubleshoot digital devices;

Stage 2: Intermediate

Create and manage content using a variety of software applications and digital devices; using web sites and search engines to locate, retrieve and manage content, tools and resources; install, uninstall and troubleshoot simple software applications etc.

Stage 3: Advanced

Use different software applications to enhance one's own learning – database applications, analysis of data and problem solving, computing, design, graphical and audio-visual communication; undertake research and carry out projects using web resources; use ICT for documentation and presentation; create and participate in web based networks for cooperative and collaborative learning; become aware of issues of cyber security, copyright and safe use of ICT and take necessary steps to protect oneself and ICT resources.

As each stage is defined by competencies to be achieved, the pace is dependent on frequency of access to the ICT facilities. Based on the local situation, the time duration needed for each stage will be shortened. Different parts of each stage can also run concurrently. In any case, an attempt will be made to ensure every student completes the advanced stage before completing schooling.

2.9 ICT enabled teaching – learning processes

- ICT enabled teaching-learning encompasses a variety of techniques, tools, content and resources aimed at improving the quality and efficiency of the teaching learning process.

Ranging from projecting media to support a lesson, to multimedia self-learning modules, to simulations to virtual learning environments, there are a variety of options available to the teacher to utilise various ICT tools for effective pedagogy. Each such device or strategy also involves changes in the classroom environment, and its bearing on effectiveness. Availability of a wide range of such teaching-learning materials will catalyze transformation of classrooms into ICT Enabled classrooms.

- Teachers will participate in selection and critical evaluation of digital content and resources. They will also be encouraged to develop their own digital resources, sharing them with colleagues through the digital repositories.
- In schools equipped with EDUSAT terminals, DTH or other media devices, relevant activities will be planned and incorporated into the time schedule of the school.
- Initially the teachers may use the Computer lab for teaching-learning but progressively more classrooms will be equipped with appropriate ICTs, making way for ICT Enabled classes Implementation Plan (ICT Based)

2.10 E-pathshala/Digital Learning

2.10.1 Introduction

Quality education is an essential requisite in today's competitive environment. Technology has affected us in every aspect. The Smart Classes are a modernized method of education in Indian education scenario which provides quality education to students by helping them in better concept formation, concept elaboration,



Photo 2.2 View of Smart Class Room

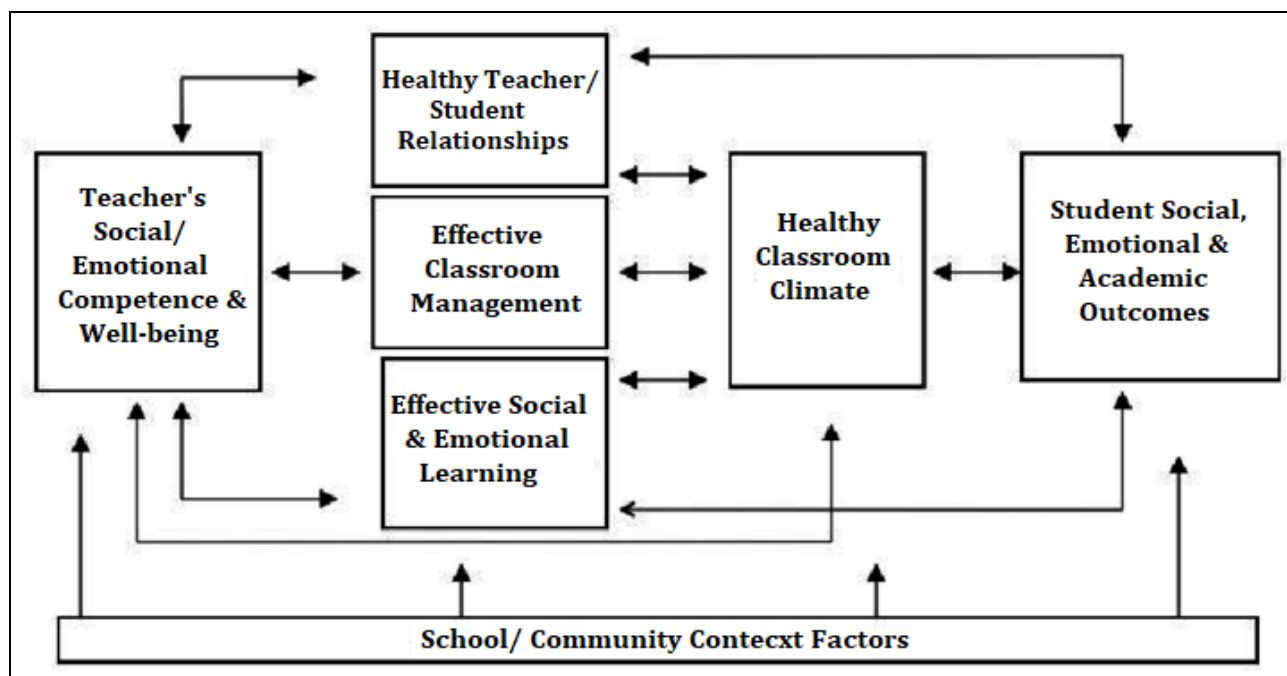
improvement in reading skills and academic achievement.

In efforts to grow academically it must be considered that differentiated modalities of teaching and learning are necessary to implement deeper levels of growth and conceptual development. It is the responsibility of the education system to employ a variety of opportunities for the students to gain interests, orchestrating academic growth and progression throughout childhood and adolescence. ICT has turned from being a technology of communication and information to a curriculum creation and delivery system for teachers and learners.

Technology benefited us in every aspect of our life right from communication to education. New methods of teaching have been introduced which is known as Smart Class. It uses instructional material, 3D animated modules and videos, and all the renowned schools are using this concept. Students are interested to adapt this concept of innovation and interactive learning process. The concept of Smart Classroom has not only made education interesting but a chance to students to enhance their performance.

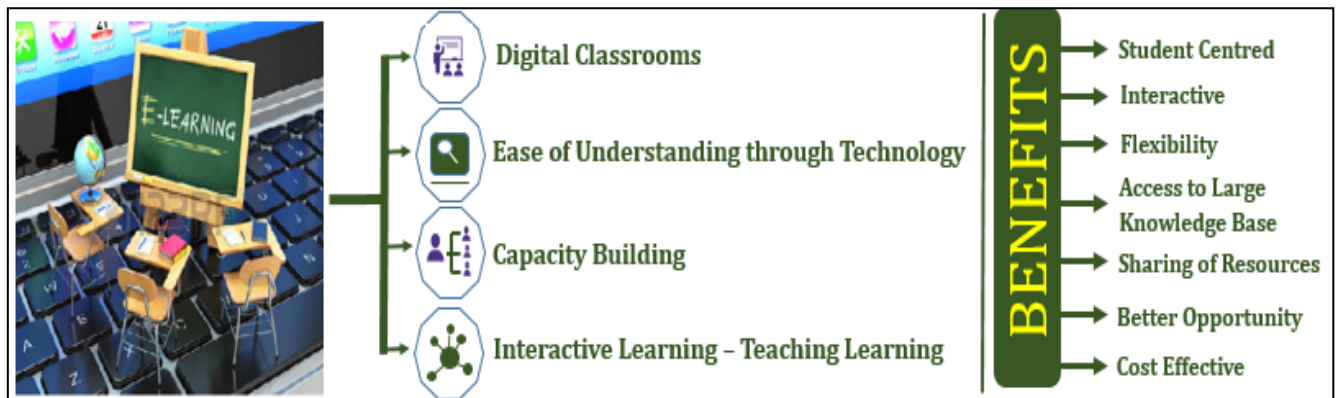
The Smart Learning approach provides learners of all ages and walks of life with a framework and a host of Smart Thinking Tools that motivate higher levels of understanding. Through the process, learners activate and build background knowledge, process information, transform their learning into a product that shows what they know, and reflect on their learning. Structured talk and assessment as and for learning are carefully woven into the process to build a thoughtful context for learning and to advance the thinking of all learners. Smart Learning realizes the goals of inclusivity and differentiation.

It is a new vision in education. The use of Education technology can bring a huge change in education. Internet and e-learning devices can make classroom environment extremely amazing. Teaching through computer, internet and multimedia devices will be a common thing in future. Now a days different multimedia lessons are available. By using these multimedia lessons teachers may teach the students very easily.



Pro-Social Framework of Digital Learning

“Smart School and Smart Class” is an innovative concept in education. In this environment e-learning and online education is the need of this time. Use of internet in schools and education is not only a dream, but it is the necessity of the time.



Objective & Benefits of E-Learning

In a Smart Class there will be computers, projectors, internet connectivity and other multimedia devices such as home theatre etc. The role of a teacher may be modified in such new environment. Objectives & Benefits

2.10.2 Need of the Project

India has made considerable progress in school education since independence with reference to overall literacy, infrastructure and universal access and enrolment in schools. This would increase the demand manifold for qualified elementary school teachers. The country must address the need of supplying well qualified and professionally trained teachers in larger numbers in the coming years. At the same time, the demand for quality

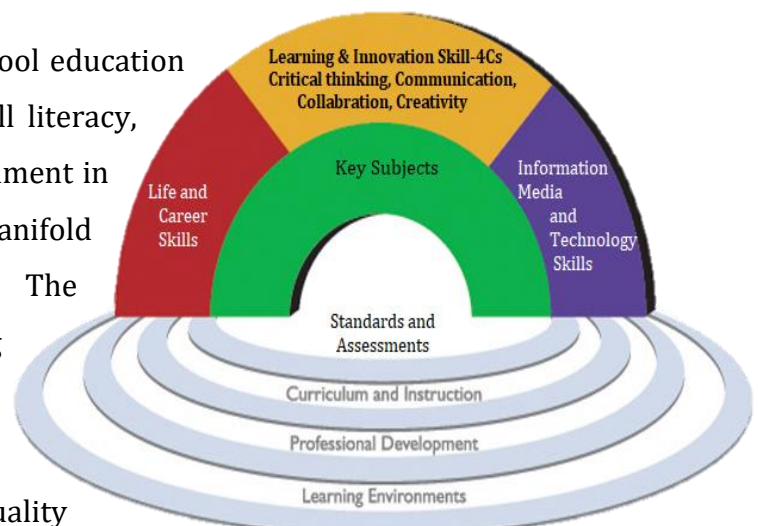


Figure 2.1: Framework of Smart Education

education is steadily increasing and the need for addressing the professional education of teachers acquires significant importance, manner and maintain pace with the modern education. The two key services being made available to the schools are the School Information System and the Learning Support Services. Successful implementation of these services in the School requires the provision of the client end infrastructure and connectivity for the Schools. Improving the quality of learning for the students through deployment of ICT in school education is a key objective of the Project. Learning Support Services include the services that can play an enabling role in improvement of quality and standards of school education. ICT can provide additional teaching aids in terms of ICT enabled teaching learning material or Digital Learning Resources, model lesson plans (for explanation of concepts), self-learning tools, and standardized assessments.

Most schools in the state are affiliated to Uttar Pradesh Madhyamik Shiksha Parishad (commonly referred to as U.P. board) with English or Hindi as the medium of instruction, while schools affiliated to Central Board of Secondary Education (CBSE) and Council for the Indian School Certificate Examinations (CISCE) with English as medium of instruction are also present.

The education policy at present is to make secondary education of good quality available, accessible and affordable to all young persons in the age group of 14-18.

At present, the following Schemes targeted at secondary stage (i.e. class IX to XII) are being implemented in the form of Centrally Sponsored Schemes:

- Rashtriya Madhyamik Shiksha Abhiyan (RMSA) Integrated
 - ❖ Girls Hostel Scheme.
 - ❖ ICT at Schools.
 - ❖ Inclusive Education for Disabled at Secondary Stage.
 - ❖ Scheme of Vocational Education.
- Model Schools Scheme
- National Means-cum Merit Scholarship Scheme
- National Incentive to Girls
- Appointment of Language Teachers

In addition to the above the Central Sector Schemes of Kendriya Vidyalaya Sangathan (KVS), Navodaya Vidyalaya Sangathan (NVS), Central Tibetan Schools Administration (CTSA), and Indo-Mangolian Schools are being implemented.

2.11 Scope of Work

This section includes –

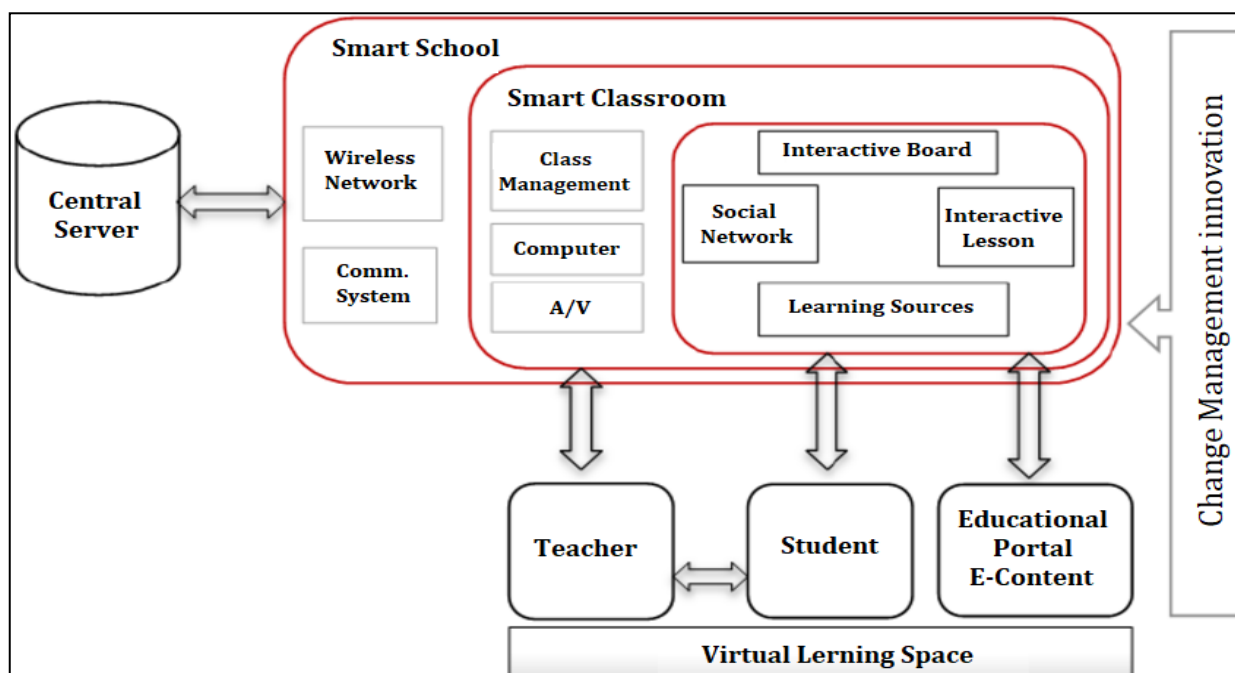
- a) Detailed scope of work.
- b) Renovation & Redevelopment of physical Infrastructure School Building & Class rooms.
- c) Technical specifications – Hardware and software requirements & specifications
- d) Service requirements.
- e) Manpower requirements
- f) Training Requirements
- g) Implementation and Integration Plan

The Scope of work mentioned below are indicative but not exhaustive.

The Bidder is required to work for Implementation of Smart Classrooms in selected schools of ABD Area in Kanpur city shall include Supply, Installation, Testing and Commissioning of Smart classrooms and with Comprehensive Annual Maintenance Contract (CAMC) for five

years, which will include hand holding support. Broadly the scope of work (not limited to) are as follows:

- Preparation of Project Inception Report.
- Supply, Installation, Testing and Commissioning (SITC) of Hardware's and other equipment's.
- Procurement, Customization and Deployment of Software and its content.
- Management and Maintenance of Hardware and Software and Content Updation.
- Designing & development of Interior & Exterior of School Building including Furniture fixtures.



Implementation Plan

2.11.1 Preparation of Project Inception Report

For the implementation a site survey and submission of a solution deployment plan is prepared before starting the site preparation work. The deployment plan should be duly approved by Procuring Entity and End User.

Site Preparation activity shall include the following:

- Electrical Wiring within the classrooms, consisting of plug-points as per requirements in a classroom, connected to UPS back-up.
- Electrical Wiring and provision of plug-points outside the classrooms for the attendance devices at appropriate places.

2.11.2 Procure customized software including with learning content as per requirements

- To Supply Hardware and connected accessories (as per minimum specifications given in this Document) and provide Textbook based Educational software, Computer Education software, Spoken English educational software, Safe use of Internet educational software.
- To provide the 'structured' cabling as per the industry standards wherever required.
- It would also need to provide backup power through UPS in order to meet the SLAs. In case, additional hardware or upgrade is required in order to maintain the service levels, then KSCL will not provide any additional cost for procure/ upgrade.

2.11.3 Procurement, Customization and Deployment of Software and content

- To procure, supply and install all the content for smart education based on Uttar Pradesh State Board/SCERT UP for Std. 1st to 12th Std. for all subjects. The content shall be approved by the concerned department of the Government of Uttar Pradesh 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 Uttar Pradesh State Board/SCERT, the digital content has to be changed / updated accordingly.
- To Provide CBSE/ICSE e-books along with study material from Class 1st to 12th.
- Procure the e-content for all subjects from Class 1st to 12th as per Syllabus.
- E-Library access to all School, Video Lectures.
- Provide Study Material for Competitive Exam along with Guidance of Subject Expert.

E-Content Detail for Class 1st to 12th, not limited to

S.No	Subject	Value	Classes
1	Hindi	e-Content in Hindi & English Language	For Classes 1 st to 12 th Standards
2	English	e-Content in Hindi & English Language	
3	Science (including PCM & PCB)	e-Content in Hindi & English Language	
4	Social Science and Arts	e-Content in Hindi & English Language	
5	Mathematics and Commerce	e-Content in Hindi & English Language	
6	Sanskrit	e-Content in Hindi & English Language	

7	Urdu	e-Content in Urdu	
8	Agriculture	e-Content in Hindi & English Language	
9	Quizzes & Interactive Q&As	e-Content in Hindi & English Language	

2.11.4 Learning Management System

E-Learning Software/Platform/Learning Management System has to be installed in Central Studio and has to be integrated with each classroom of all schools mentioned in this RFP. Learning Management System has to be scalable, flexible & robust. This system should offer set of tools to reduce effort dedicated to infrastructure and course management.

Successful Bidder will be responsible for subject-wise 2D/3D content creation based on **syllabus prescribed by UP Board/SCERT for classes 1st to 12th**. Further integration of syllabus with any other board and upgradation within UP Board will be responsibility of the Successful Bidder.

Objectives:

- To enhance the quality education by providing great tools for teaching and learning
- To engage students in learning by using new and exciting state of art technology
- Innovative rather than repeating them-self over and over
- To stay focus on providing quality contents
- Is very intuitive and one can learn to use and navigate it easily

E-Learning Software and Learning Management suit should be aimed to change the way conventional way of learning and teaching. This system has to bring in related web technologies and integrate them into E-Learning platform.

E-Learning management system should have integrated **Video Lecture Composition and Delivery (VLC)** providing required modules used to deliver and track students learning. The tools should give a Successful Bidder collaborative learning environment to promote learning among students.

Following tools covering major categories should form a part of it:

- **Collaboration Tools:** Group Work, Community Networking, Wiki
- **Communication Tools:** Discussion Forum, Online Notes, Real-time Chat, File Exchange
- **Content Development Tools (this would essentially be a part of Implementation Agency):** 2D & 3D Content Creation, Syllabus & Course Management, Updating Syllabus & Timetable as and when needed, Assignments and Test management
- **Productivity Tools:** Grades, Progress, Analysis of growth in student performance

1. Online Video Lectures should form an important part of an E Learning initiative under this project. The lecture should be accessible anytime, anywhere, without installing any extra software, directly from a general web browser through user based login available to teachers, students, parents etc. It should form an exhaustive repository of all the information related to a specific course. It should enable students to make quick revisions, compensate for missed lectures or even give lectures to students as a distance learning approach.

2. Learning Management System should have facility to **upload course content** in the form of video, presentations, pictures, pdf, spreadsheets and any other type of documents.
3. Software should have facility where students can be assigned to the course and be provided with login credent Successful Bidder Is to revise the course mater Successful Bidder as well as take examinations.
4. E-learning portal and Learning Management System will have to be customized on cloud and student teaching will be through web and video.
5. The software should provide the ability to perform online evaluation of students.
6. System should give a clear picture about how each student is performing. At the same time it should also provide the students an ability to ask questions and conduct group discussions, create their online notes, ask questions, etc.
7. A combination of online learning and class room approach can be used to provide blended learning using best of both the technique.

Advantages of Learning Management System:

- The course mater Successful Bidder I is maintained online and is easily accessible for editing.
- Students can learn at their own pace and comfort level.
- Students can communicate with the teachers without interference of peer pressure.
- They can perform group activities and collaborate on group assignments.
- Flexibility of content delivery for teachers is very high.

2.12 The Learning management system will include E –Content has to be provided in prescribed format: Text, pictures, sound, Video, Animations and Presentation.**Text**

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

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.

2.13 E-Library Management System

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.

Library Management System

Essential Successful Bidder Features to be included:

- Access of different categories like; Books, Journals, Newspapers, Magazines, etc.
- Classify the books subject wise.
- Define a way to enter new books.
- Keep record of complete information and links of e-books like; Book name, Author name, Publisher’s name, Date/ Year of publication, price of the book, Book purchasing date/ Bill no.
- Define a way to make a check-out.
- Define a way to make a check-in.
- Different criteria for searching a book.
- Different kind of reports like; Total no. of books, no. of logins, no of downloads no. of journals, etc.
- Completely **Data based Library Management System.**

Software:

- Complete online access with multiple Log IN for Admin/Teachers/Parents/Students.

- Mobile app replica of website (for principal, Teachers and Student).
- Responsive Content Management System integrated with respective State Board/SCERT.
- Customization of the manual format in the software.
- Automatic back-up in centralized e-library.
- 24X7 Support service with least response time.

Question Bank and Test Papers of Previous exams.

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, subject Notes, Video lectures etc. for various Competitive Exams (Like IIT, PMT, NDA etc.) will also be available for the Students for the preparation of National and international Competitive Exams.

2.14 IT Networking Requirements

All computers in the school will be part of a single local area network to enable optimum sharing of resources. In addition to the internet connections will also be provided at the teacher's common room or in the principal office.

Each school will be serviced with broadband connectivity capable of receiving streaming audio and video, a range of digital learning resources and interactive programmes. The number of computers given internet connectivity will be governed by the available bandwidth, in order to ensure adequate speeds. A mechanism to have offline access to internet content will be set.

Teachers and students will be educated on issues related to the safe use of internet. Firewalls and other security measures will be implemented to guard the school network against cyber-attacks and misuse of the ICT facilities. Appropriate guidelines for network security will be developed.

Required Specifications

- Intuitive Management Interface.
- Windows and Web-based consoles, workspace views, dashboards to integrate School Management System, Learning Management System.
- Dynamic Device Discovery, SNMP, IP Address Range, SNMP Scan, file import, and hosts file, Full SNMP v1-3.
- Functionality including security, WMI Monitoring Functionality.
- Visual Network Mapping, Network topology, subnets, devices, applications, and systems.
- Configurable Monitoring, Performance, passive, active, real-time, custom (scripted), monitoring templates, and bulk changes.
- Predictive Alerts which are Customizable, up, down, and threshold (min/max), maintenance mode, device dependency, and escalation.
- Real-time Reporting - configurable reports, real-time, and historical graphs.
- Comprehensive Security, Local certificates, trusted certificates, and 128-bit SSL.

- Role-based Management, Access network maps, configuration, alerts, notifications, reporting, and management console.
- Must be the newest available version of software.

2.15 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. A judicious mix of software applications will be introduced in schools.

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 each Schools for enhanced Teaching and Learning experience

Apart from the above mentioned Hardware for the Digital Classroom, IT Labs and Digital Library KSCL wants to

- Procure Software's which are required to enable smooth e-Learning operations,
- Integrate learning management system in two languages (Hindi & English) for all schools.
- Create school functioning/administration system and integrate it with proposed centralized e-Library of KSCL.
- 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.

➤ 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, KSCL).

2.16 Manpower Requirements

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

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

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

2.16.1 Operational Support

The main objective of Operational Support would be to ensure efficient and reliable management of the IT infrastructure and services required for running the solution and related applications and hardware / networks during the contract period.

The support should cover all aspects of the following services (including but not limited to):

- Systems Administration
- Network Administration
- Database Administration
- Communication Management Services
- Disaster Recovery Services
- Software Update Management Services
- Maintenance Services
- Help Desk Services

Support must be for the entire duration of contract of entire equipment, including, but not limited to:

- Management of all servers, peripherals, network equipment and connectivity (that is the responsibility of the SI) to ensure at least 99% uptime.
- Resolving all problems pertaining to all servers, peripherals, network equipment and connectivity to ensure at least 99% uptime for all equipment. This would include interfacing with all other third party vendors, ISPs, agencies involved in running of the IT infrastructure.
- Resolving all problems and issues at all locations with respect to anything concerning the application.

- Carrying out preventive maintenance in addition to corrective maintenance.
- Systems administration activities such as managing security / access systems, ensuring server backups, disk management etc.
- Replacement of systems / equipment that is non-functioning.

2.17 Training and Capacity Building for Sustainable E-Pathshala Management

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 KSCL involves many officials and School staffs. A baseline data collection has been taken through initial survey of schools and discussion with the DIOS and 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.

2.18 Training and Capacity Building Approach

1. The training program shall be required to prepare and organize to facilitate the user departments in the efficient usage of the whole system.
2. The training shall provide as per the proposed training schedule to be shared with the client
3. The training is required to conduct a Training Needs Analysis of all the concerned staff and draw up a systematic training plan in line with the overall project plan. For all these training programs provide necessary course material and reference manuals (user/ maintenance/ administration).
4. The training shall provide to system users to efficiently use the system. The teachers/ staff thus trained would subsequently train the other teachers/staff as required.
5. Based on the roles and responsibilities of the client officials at various levels, the training plan should be proposed; it should address level wise functional and general training requirements in accordance with the existing skillset and capacity of the officials.
6. The training has to provide Application Training for approximately 50 Teachers, 25 Users / Admins in various aspects of application use and System Administration. A Batch size would not in normal cases be more than 50.
7. Training Room will be provided by the procuring entity. Training would be held in various selected schools of the project area that would be discussed with the concerned authority.
8. “Train the Teacher” Training would need to be provided to approximately 10 teachers in each of the modules. A detailed training schedule, including the dates, areas to be covered, time and the training literature (to be supplied to Client) at various stages of the training cycle and feedback for effectiveness will be agreed to by both parties during the performance of the Contract.
9. Training shall encompass the knowledge of detailed functionalities of department specific modules for each of the concerned departmental users along with basic functionality of the

entire solution. For imparting training; will have to provide training material, trainer, along with training infrastructure such as, overhead projector, etc., trainings shall be provided as per the training schedule.

10. Training shall be imparted in Hindi and English language as per the requirement of the trainees. The printed manuals and training manuals should also be available in Hindi and English Language.
11. Required to provide CBT (Computer Based Training) for each of the functional module on the intranet / soft copy / CDRom for reference of the Teachers. CBT has to be in both Hindi and English Language.
12. The teachers 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 trainee 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.

2.19 Providing Training to Subject Teachers and Students

2.19.1 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.

2.19.2 Training Delivery

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

1. Induction Training :

First time induction training 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 –**

- Introduction Session Computer Overview (Parts of PCs/ digital devices/ etc.).
- Operating Systems Office Suit.
- Internet/ Email/browsing 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. The average number of teachers to be trained per school will not exceed 5.

▪ 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.

a. Training Module

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

- At least **5 teachers** from each school needs to be trained.
- Each training program will have maximum **50 persons**.
- KSCL will provide training space for the training of teachers. Necessary infrastructure from Schools such as computing equipment's would be used for the training.

Note: Requirements and Specifications prescribed in this R are indicative and tentative.

Bidders may propose better and technologically more evolved specifications in their technical bids.

Deliverables & Timelines

The Bidder should deliver the hardware and software within 30 days from the date of Agreement.

The software should be delivered along with the delivery of hardware. The commissioning of the project as per the scope of work shall be completed within 30 working days from the date of delivery of the hardware. The broad timelines for implementation of the scope of work is as follows:

Sl. No.	Activity / Component	Timelines (T ₀ = LoI Issuance Date)
1	Signing of Contract Agreement	T ₀ + 15 days = T ₁
2	Site Preparation & Supply of hardware, software & fixtures	T ₁ + 30 days
3	Installation & Commissioning of all hardware and software components = Go-Live	T ₁ + 150 days = T ₂
4	Operation & Maintenance	T ₂ + 60 months

The following deliverables are expected from the selected bidder:

Sl. No.	Deliverable	Timelines (T ₁ = Signing of Agreement)
1	Site Survey Report and Solution Deployment Plan	T ₁ +15 days
2	Installation & Commissioning / Go-Live Report	T ₁ +180 days
3	Monthly Reports for Operation & Maintenance	Every month after Commissioning for 60 months
4	Vocational / Skill Development Training	Monthly report on courses batches, enrolment, revenue, costs, etc.

2.20 Implementation and Integration Plan

Schools in ABD area will be considered to establish Smart Classes after initial assessment of Infrastructure & basic amenities.

Implementation and Integration with all existing and future services as identified by Kanpur Smart City limited (KSCL) in the city including but not limited to (with provision for future scalability).

Schools to be implemented for e-Pathshala

The **six** schools are finalised for establishing Smart Classes under e-pathshala project in ABD area of Kanpur City. The list of selected schools is as follows:-

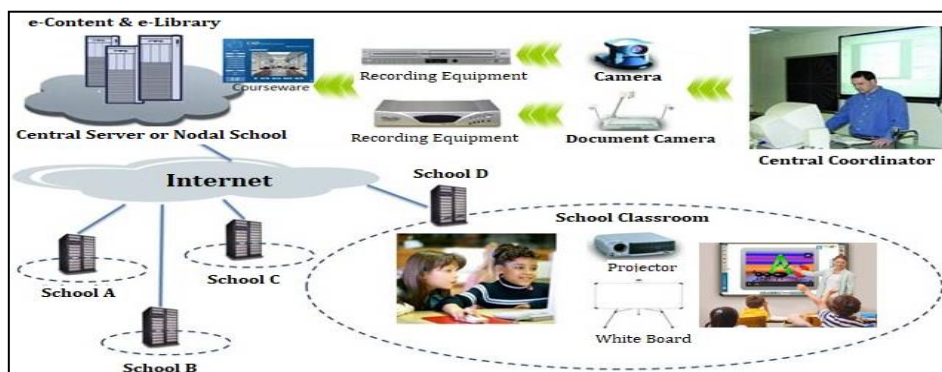
S. No	Name of Schools	Category	No of Classes
1	Primary G School Khalasi Line Pratham	Primary School	1
2	Nagar Nigam Mahila Inter College,	Inter College	1
3	Naga Nigam Balika Inter College	Inter College	1
4	Nagar Nigam Mahila Inter College	Inter College	1
5	Shri Kailash Nath Balika Inter College	Inter College	1
6	DAV Inter College	Inter College	1

Implementation Plan for Selected Schools

Each classroom will be equipped with Hardware Equipment such as Projector, Interactive Smart Board, White Board, Desktop, Speakers, Wireless Mice, and CCTV Camera along with Internet Connectivity, which are essential for establishing Smart Class. Each smart Class will integrated with a local server of school and all the local servers will be integrated with central server or Nodal School

through networking which will help in any kind of Updation/addition centrally where the Content are Stored & Updated as per UP Board Syllabus and CBSE & ICSE syllabus contents will also be included for students.

The E-Content & E- Library will be deployed on the server either at 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



2.21 Smart School Management System

School Management System should be designed to **automate the process** of school from

- Student admission to examination management integrated with school dashboard,
- Course management to schedule management as part of Learning Management System (explained later),
- Security, Surveillance, Visitor Management System, Attendance Management, Wi-Fi facilities.
- School Software which would enable the School Management System should automate school's operations such as
 - Student Admission Management,
 - Attendance Management,
 - Examination Management,
 - Human Resource Management,
 - Time Table Management,
 - Records & Profiles Management and,
 - Visitor Management System(VMS)

This system should be marked by additional features such as news and events, school calendar, profile search, messages, internal mail, etc.

School Software will have to be made available in both modes- Online as well as Offline.

Both modes should have all the modules and features:

Required **Modules of School Software**

Time Table	Messaging	Attendance
Student Admission	Courses and Batches	Examination
Human Resource	User Management	News Management
Student Details	Finance	Multiple Dashboards

Dashboard Features & Settings should include:

Attendance

- Attendance in School Software

- Note/Remarks for attendance can be given
- Different types of attendance report can be taken

Student Admission

- Online customizable admission form
- Manage all employees from admission to exit
- Different Report generation facility

Examination

- Examinations in School Software
- Create different types of exams based on grades, marks etc.
- Group exams if required
- Generate report for required exams
- Statistical and Graphical view of all reports
- Automated, quick and on-demand report generation
- Statistical and chart reports, a better analytical view
- GPA, CCE and CWA Evaluation methods
- Allow education department to set standards for different roles based on their responsibility

User Management

- Basic school information
- Manage student categories
- Unique ID for all students
- Customizable as per school standards
- Student details in School Software
- Normal student view facility based on batches
- View/Edit users password and privileges
- Manage Users in School Software

Time Table

- Timetable in School Software
- Drag and drop timetable creation design
- System Alerts on subject limits per week stats
- System Alerts on employee subject limits while creating timetable
- Timetable creation in advance
- Edit/Delete timetable facility available

Courses and Batches

- Managing courses and batches
- Previous education details can be recorded

News Management

- Prior information can be informed about school events, news and holidays
- Manage News in School Software
- Create/edit/delete news
- Search for any news using search bar
- View all news facility also available
- Add News using rich text format
- Edit/Delete news
- Published news has the facility to comment also
- Delete comment facility also available

SMS/Messaging/System Alerts

- Activate SMS module
- Set SMS configuration for alerts to be sent to specific contact numbers for respective actions
- Send SMS to single or group users or to all
- Periodical Messaging System to parents and other identified stakeholders regarding attendance and results
- Inbuilt messaging system
- Easy and quick way to send messages to any user in the system
- To send list of messages through Student Information Management System to the guard Successful Bidder ns of the learner-

- Examination Schedule Message
- Messages of Exam Result Declaration
- Fee Notification Messages
- Winter/Summer Vacation Messages
- Students presence/absence Messages
- Students performance Messages
- Emergency Holiday Announcement Messages
- Wishing Messages on any Festival or another occasion
- Messages for different events like Annual Function, Tour/Picnic, Sports Day, etc.

Student Information Management System - web based solution to communicate daily campus information of a student to his/her, guard Successful Bidder. Tutors also have the facility to communicate with parents whenever they want. Parents get notify for each and every achievement.

Other features required -

- Emergency contact facility available
- Search existing and former students
- Search for any users using the search bar
- Efficient leave management system available
- Manage Asset and Liabilities
- Effective communication between administration, teachers, students and parents
- Recording communications with students
- The above modules will provide features in support of complete student and parent details, student attendance reports, mark sheets, top student reports, student certificate management, teacher and staff attendance reports, student fee reports, examination management.

Visitor Management System

This will be a Fingerprint based time and attendance access control system to be placed separately for Teachers (Outside Staffroom) and Students (Outside each of the 20 Classroom, Library, Central Studio and Computer Lab). While period-wise manual attendance for students will still continue and will be a tool for cross verification as and when required. Features to be included in Visitor Management System

- Record in and out entry of visitors, contract workers, etc.
- Authorize every entry
- Gives a Pop-up and alerts on client PCs for Visitor authorization
- It allows Hold or Reject a visitor

LEARNING MANAGEMENT SYSTEM

E-Learning Software/Platform/Learning Management System has to be installed in Central Studio and has to be integrated with each classroom of all schools mentioned in this RFP. Learning Management System has to be scalable, flexible & robust. This system should offer set of tools to reduce effort dedicated to infrastructure and course management.

Successful Bidder will be responsible for subject-wise 2D/3D content creation based on ***syllabus prescribed by UP Board for classes I to XII***. Further integration of syllabus with any other board and upgradation within UP Board will be responsibility of the Successful Bidder.

Objectives:

- To enhance the quality education by providing great tools for teaching and learning
- To engage students in learning by using new and exciting state of art technology
- Innovative rather than repeating them-self over and over
- To stay focus on providing quality contents
- Is very intuitive and one can learn to use and navigate it easily

E-Learning Software and Learning Management suit should be aimed to change the way conventional way of learning and teaching. This system has to bring in related web technologies and integrate them into E-Learning platform.

E-Learning management system should have integrated **Video Lecture Composition and Delivery (VLC)** providing required modules used to deliver and track students learning. The tools should give a Successful Bidder collaborative learning environment to promote learning among students. Following tools covering major categories should form a part of it:

- 1) **Collaboration Tools:** Group Work, Community Networking, Wiki
- 2) **Communication Tools:** Discussion Forum, Online Notes, Real-time Chat, File Exchange
- 3) **Content Development Tools (this would essentially be a part of Implementation Agency):**
2D & 3D Content Creation, Syllabus & Course Management, Updating Syllabus & Timetable as and when needed, Assignments and Test management
- 4) **Productivity Tools:** Grades, Progress, Analysis of growth in student performance
 - **Online Video Lectures** should form an important part of an E Learning initiative under this project. The lecture should be accessible anytime, anywhere, without installing any extra software, directly from a general web browser through user based login available to teachers, students, parents etc. It should form an exhaustive repository of all the information related to a specific course. It should enable students to make quick revisions, compensate for missed lectures or even give lectures to students as a distance learning approach.
 - Learning Management System should have facility to **upload course content** in the form of video, presentations, pictures, pdf, spreadsheets and any other type of documents.
 - Software should have facility where students can be assigned to the course and be provided with login credent Successful Bidder Is to revise the course mater Successful Bidder as well as take examinations.
 - E-learning portal and Learning Management System will have to be customized on cloud and student teaching will be through web and video.
 - The software should provide the ability to perform online evaluation of students.
 - System should give a clear picture about how each student is performing. At the same time it should also provide the students an ability to ask questions and conduct group discussions, create their online notes, ask questions, etc.
 - A combination of online learning and class room approach can be used to provide blended learning using best of both the technique.

Advantages of Learning Management System:

1. The course mater Successful Bidder I is maintained online and is easily accessible for editing.
2. Students can learn at their own pace and comfort level.
3. Students can communicate with the teachers without interference of peer pressure.
4. They can perform group activities and collaborate on group assignments.
5. Flexibility of content delivery for teachers is very high.

Library Management System (Hardware with Software)-

Essential Successful Bidder Features to be included:

- Keep record of different categories like; Books, Journals, Newspapers, Magazines, etc.
- Classify the books subject wise.
- Define a way to enter new books.
- Keep record of complete information of a book like; Book name, Author name, Publisher's name, Date/ Year of publication, Cost of the book, Book purchasing date/ Bill no.
- Define a way to make a check-out.
- Define a way to make a check-in.
- Automatic fine calculation for late returns.
- Different criteria for searching a book.
- Different kind of reports like; total no. of books, no. of issued books, no. of journals, etc.
- Define a way to know how many books are issued to a particular student.
- Define a way to know the status of a book.
- Event calendar for librarian to remember their dates.
- My Notes section for librarian to write any note.
- Online access for registered user to see the status of their books.

- Completely **cloud based Library Management System**.

Software:

- Complete online access with multiple Log In for Admin/Teachers/Parents/Students
- Mobile version of the website (for principal and librarian to control and command)
- Responsive Content Management System integrated with respective school dashboard
- Unlimited SMS & E-mail provision
- One month training – including integration of customized requirements
- Customization of the manual format in the software
- Cloud based data security
- Automatic back-up in data centers
- 24X7 Support service with least response time

2.22 Bill of Material (BOM)

Sl. No.	Item Description	UOM	Qty
Smart Classroom			
1	LED Short Through Projector	Nos	1
2	CPU along with monitor, keyboard, mouse, pre-loaded antivirus & OS	Nos	1
3	Audio System along with accessories and with the compatible wireless microphone & speaker	Nos	1
4	Digital Interactive Board (77 inches)	Nos	1
5	Bio-Metric for Classroom	Nos	1
6	Air Conditioner	Nos	1
7	Antivirus	Nos	1
8	CCTV Camera (IP Based) along with accessories	Nos	1
9	Network Switch (Manageable 24 Ports)	Nos	1
10	Router (Minimum 150Mbps)	Nos	1
11	Structural Cabling including with all mandatory accessories (200mtrs for one class) to complete the communication (like cat6 cable, face plate, coupler male/female, cable manager, etc.)	Set	1
12	12U wall mount network rack	Nos	1
13	Online UPS along with 30min. Backup	Nos	1
14	Fire Extinguisher	Nos	1
15	Firewall	Nos	1
16	Leased line connectivity for 2 Mbps (for 5 years)	Nos	1
17	Electrical Cabling (Lump sum)	LS	1
18	Furniture (if Required)	LS	1
E-Content/Software			
19	Customized E-Content (Textbook based Educational Software from 1st Standard to 12th Standard UP Board), E- Library and Competitive Exam Solutions etc.	Nos	1
Training & Capacity Building			
20	Resource person expenditure	Set	4
21	Training Materials/Misc.	Set	4
Comprehensive Annual Maintenance Contract (CAMC)			

22	Comprehensive Annual Maintenance Contract for 5 years	Yrs	5
Centralized E-Library			
23	Servers (Data and Application)	Nos	1
24	Softwares (Application & NMS)	Nos	1
25	Firewall	Nos	1
26	Desktop for server & Software	Nos	1
27	Rack for Equipments	Nos	1
28	Network Switch (Manageable 48 Ports)	Nos	1
29	Router	Nos	1
30	Antivirus	Nos	1
31	On line UPS along with 1 hrs Back-up	Nos	1
32	Structural Cabling including with all mandatory accessories (200mtrs for one class) to complete the communication (like cat6 cable, face plate, coupler male/female, cable manager, etc.)	LS	1
33	Electrical Cabling	LS	1
34	Leased line connectivity (for 5 years)	Nos	1
35	Air Conditioner	Nos	2
36	Fire Extinguisher	Nos	1
37	24U network rack	Nos	1
38	Furniture	LS	1

2.23 Technical Specifications

Technical Specifications for the Smart Classes are as follows:

2.23.1 Technical Specification of Desktop/CPU

S No.	Features	Parameter
1	General specifications	
	Processor	Minimum core i5, 7th generation, HD integrated graphics card (1 GB NVidia Ge Force DVI or better dual port Graphics card) and cache memory or equivalent
2	Memory	
	RAM	4 GB RAM or more with expansion slot
3	Storage	
	Hard disk capacity	1TB HDD SATA 7200rpm or more
4	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
5	Display	
	Screen size	Size : 24" TFT LED Resolution : Maximum 1920x1080 Input Ports : Minimum 1xDP, 1x HDMI, 1xDVI, 1xVGA Minimum contrast ratio: 1000:1 Viewing Angle: 170°/160° Certificate : Energy star 5.0/BEE star certified
6	Input device	
	Optical Drive	DVD drive with both read and write capability
	Pointer device	A separate optical mouse should be provided

	Keyboard	Minimum 109 keys or more (Standard Keyboard)
7	Communication	
	Ethernet	10/100/1000 Gigabit or Higher
	Wireless LAN	Yes
8	Antivirus	
	Antivirus	Licensed Antivirus shall be provided for servers and workstations along with update subscription valid till CAMC period of the offered system.
9	Office Suite	
	Office Suite	MS Office 13 or higher/latest (Inbuilt)
10	Ports/slots	
	USB Ports with 2.0 or above, 1 HDMA Port All other ports are as per the Industry Norms Warranty: Comprehensive onsite support during the contract period. At least 2 nos. spare USB ports front and rear both other than those required for the system	

2.23.2 Digital Interactive Boards (77 inches)

S. No.	Features	Parameter
1	Touch Functionality	Write, Delete, Perform, Mouse Functions with a finger or Stylus Pen.
2	Durable Surface	Hard coated Steel Surface that is durable, optimized for Projection
3	Input	Ports: USB 2.0 and 3.0, HDMI, VGA, Parallel, Serial, Ethernet and composite audio/video etc. (but not limited to)
4	Input Voltage Range	160 V AC to 300 V, AC Single Phase
5	Input Frequency Range	50 Hz +/- 5%
6	Screen Size	77" (inches)

2.23.3 UPS 5-KVA

S. No	Features	Parameter
1	Capacity	5 KVA
2	Wave Form	Pure Sine Wave
3	Backup	<ul style="list-style-type: none"> Minimum 30 min. for Schools with full load for School Minimum 60 min. for Schools with full load for Centralized E-library.
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% 2 phase
B	Frequency	50 Hz, +/- 0.05 Hz (Free running)
C	Over load capacity	125% for 10 minute, 150% for 1 min
D	Crest factor	3:1 max
E	Manual and Auto	Should be provided

S. No	Features	Parameter
	Bypass Switch	
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	125% for 10 min, 150% for 1 Min
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	3200 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.
G	Battery Housing	Cabinet / Battery Rack
H	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

2.23.4 Audio System

S.No	Features	Parameter
1	Type	Portable / Low Power
2	Technology	Latest Mainstream Wireless Technology
3	Wattage	25 watts RMS or higher
4	Speakers	Minimum 1 for inbuilt or 2 for external

5	Volume Controller	Individual volume control for wireless microphone, wired microphone
6	Paring	Automatic pairing of each wireless microphone separately
7	USB Interface	Inbuilt MP3 player
8	Safety Protection	Built-in Fuse for safety
9	Inputs	1 Line/AUX input and 2 MIC input for connecting wired / wireless microphones or better
10	Wireless Microphone / Collar Microphone	As per industry norms. Minimum 1 Cordless and 1 Collar Microphone
11	Channel selection	Automatic channel selecting facility through wireless microphone. Manual frequency selecting switch.
12	System Design	System having built-in amplifier & built-in receiver using 2.4GHz mainstream wireless technology
13	Wireless Receiver	Built-in
14	Wireless Amplifier	Built-in

2.23.5 LED Short throw Projector

S.No	Features	Parameter
1	Display Technology	LED with full HD
2	Type	Ultra-Short Throw
3	Native Resolution	WXGA 1280X 800 or better as per other industry standard resolution
4	Brightness	3000 lumens or better
5	Lamp/LED Life	50000 hours or more
6	Contrast Ratio	8000:1 or better
7	Input Connections	Should have minimum 1-VGA + 1 HDMA as Inputs, rest all as per industry standards
8	Aspect Ratio	4:3 Should support 16:10
9	Audio	4Watt or better
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 (VGA connector + 1 HDMA Connector)
12	Image Size minimum	40 Inches or more
13	Image Size Maximum	250 inches or more

2.23.6 Biometric Attendance System

S.No	Features	Parameter
1	Credential Support	Fingerprint
2	Module Type - Finger Print	Finger Print, password based and etc.
3	Unique User Capacity	5000
4	Fingerprint Verification	1:1 and 1:N
5	Cards per User	2
6	Events Buffer/ No. of transactions	100000

S.No	Features	Parameter
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 Broadband (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 other relevant interface
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
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
26	Processor	32 bit high end Microprocessor or higher
27	Temperature	0°C – 50°C
28	Operating Humidity	20% - 80%
29	Database & Reports	All Biometric Devices should be connected to one single and composite database. The related software applications should be able to generate Management Information System (MIS) reports as per the requirement of School Authorities.
30	Biometric Devices	Individual for each classroom

2.24 IT Networking Requirements

All computers in the school will be part of a single local area network to enable optimum sharing of resources in smart classroom.

Each school will be serviced with broadband connectivity capable of receiving streaming audio and video, a range of digital learning resources and interactive programmes. The

number of computers given internet connectivity will be governed by the available bandwidth, in order to ensure adequate speeds. A mechanism to have offline access to internet content will be set.

Teachers and students will be educated on issues related to the safe use of internet. Firewalls and other security measures will be implemented to guard the school network against cyber-attacks and misuse of the ICT facilities. Appropriate guidelines for network security will be developed.

Required Specifications

- Intuitive Management Interface.
- Windows and Web-based consoles, workspace views, dashboards to integrate School Management System, Learning Management System.
- Dynamic Device Discovery, SNMP, IP Address Range, SNMP Scan, file import, and hosts file, Full SNMP v1-3.ss
- Functionality including security, WMI Monitoring Functionality.
- Visual Network Mapping, Network topology, subnets, devices, applications, and systems.
- Configurable Monitoring, Performance, passive, active, real-time, custom (scripted), monitoring templates, and bulk changes.
- Predictive Alerts which are Customizable, up, down, and threshold (min/max), maintenance mode, device dependency, and escalation.
- Real-time Reporting - configurable reports, real-time, and historical graphs.
- Comprehensive Security, Local certificates, trusted certificates, and 128-bit SSL.
- Role-based Management, Access network maps, configuration, alerts, notifications, reporting, and management console.
- Must be the newest available version of software.

List of minimum requirements –

2.24.1 List of network component

S. No	Product	Scope
1	Routers	To capture Classrooms in Schools of ABD Area.
2	Network Monitoring Server	Content and e-library software, which will integrate all schools with Smart Class & Finally with Command and Control Centre of KSCL.
3	Switch	To capture Classrooms in Schools of ABD Area.
4	Repeater	To capture Classrooms in Schools of ABD Area.
5	Gateway	To capture Classrooms in Schools of ABD Area.
6	Firewall	To capture Classrooms in Schools of ABD Area.
7	Trans receiver	To capture Classrooms in Schools of ABD Area.
8	Ports/Interfaces	To capture Classrooms in Schools of ABD Area.

9	LAN	To capture Classrooms in Schools of ABD Area.
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2.24.2 UTP CAT 6 Cable

S. No	Features	Parameter
1	Features	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	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.

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

S. No	Features	Parameter
1	Features	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 Labe.
2	Material	ABS / UL 94 V-0
3	Port	One

2.24.4 8/16/24/48 Port Gigabit Fast Ethernet Web Managed L2 POE Switch

S. No	Features	Parameter
1	Port	8/16/24/48 ports 10/100/1000Base-T and 2 ports 1000 Base-X, 2 Giga SFP port
2	Power Over Ethernet (PoE)	1. Support for 802.3af, 802.3AF 2. Power per port - 31Watts for 4 ports, Rest of the ports supports 15.4Watts
3	Forwarding Rate	Min 35Mpps

S. No	Features	Parameter
4	MAC address	16K
5	VLAN	256
6	Jumbo Frame	9 K
7	Features	1. Auto Negotiation of port speed and Duplex Settings 2. IEEE 802.1wrapid Spanning Tree group 3. Loopback Detection 4. IEEE 802.3ad Link Aggregation or equivalent 5. IEEE 802.1p (Priority Queues) 6. IEEE 802.1x security, 7. Port based Mirroring 8. Support for IPv6
8	VLAN Support	1. 802.1Q VLAN 2. Private VLAN 3. Traffic Segmentation 4. VLAN protocol 5. GVRP 6. Q-in-Q
9	Management	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.
10	Quality Service of	1. 4 hardware queues 2. Strict priority, weighted round robin Priority Queue.
11	Switch support must	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 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

2.24.5 Firewall

S.No	Features	Parameter
1	Firewall	Layer8 (User identity)
2	Network Protocols	DHCP server, DHCP relay, Static IP, DDNS, Spanning Tree Protocol (STP) & Layer Tunnelling Protocol (LTP) etc.
3	Routing Protocol	Static & RIP v1, v2
4	NAT Protocol	Port Address Translation (PAT), Network Address Port Translation (NAPT) & Session Initiation Protocol Application Layer Gateway (SIP ALG) etc.
5	IP Protocol	IPv4 & IPv6 configuration from day one
6	Network Edge	Software configurable on any IP address
7	VLAN support	Port-based and 802.1q tag-based VLANs, inter-VLAN routing
8	VLAN Number	16 active VLANs (1-4096 range)
9	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
10	SSL VPN platforms	Microsoft Windows 2000/XP/Vista/7/8/10 32bit and 64-bit
11	Prioritization types	802.1p port-based priority on LAN port, application-based priority on WAN port
12	Web user interface	Simple 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.
13	NAT throughput	800 Mbps or better
14	IPsec throughput VPN	90 Mbps or better
15	SSL throughput VPN	25 Mbps or better

2.24.6 Router

S.No	Features	Parameter
1	Interface	4 ports 10/100Mbps LAN and 1 port 10/100Mbps WAN
2	Antenna	minimum 2*5dBi Detachable Omni Directional
3	Wireless Standards	IEEE 802.11n, IEEE 802.11g, IEEE 802.11b
4	Signal Rate	11n - Up to 150Mbps(dynamic), 11g - Up to 54Mbps(dynamic) and 11b - Up to 11Mbps(dynamic)
5	Wireless Functions	Enable/Disable Wireless Radio, WDS Bridge, WMM, Wireless Statistics
6	Wireless Security	64/128/152-bit WEP / WPA / WPA2, WPA-PSK / WPA2-PSK
7	WAN Type	DynamicIP/StaticIP/PPPoE/PPTP(Dual Access)/L2TP(Dual Access)/BigPond
8	System Requirements	Microsoft Windows 98SE, NT, 2000, XP, Vista™ or Windows 7, Windows8/ 8.1/10
9	Protocols	Support IPv4 and IPv6

2.24.7 Equipment Rack

S.No	Features	Parameter
1	Type	19" 12U Rack wall mount & 19" 27U 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 equipments 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 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.

2.24.8 IP Day/Night WDR Fixed Colour Camera Varifocal

S.No	Features	Parameter
1	Type	Dome
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 upto 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 0.04 lux
8	Image Resolution	2 MP or better
9	Compression	H.265 , MJPEG or better
10	Frame Rate and Resolution	3M (2048 X 1536) @50/60 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, PPPoE, 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 Profile S & G
18	Supported Web Browser	Internet Explorer (7.0+)/Firefox/Safari/Chrome/Mozilla Firefox or similar or higher browser

2.24.9 Server

S.No	Features	Parameter
1	CPU	Minimum Two Processor of 6 Core each or higher Intel/AMD CPU operating at 3.4 GHz or more with a minimum of 12 MB cache or higher
2	Memory	32 GB DDR RAM Upgradable to 128 GB
3	Chassis Type	Rack mountable
4	Hard Drives	SAS 10K/SATA rpm or higher hot swappable Hard Disk in RAID 5 or 6 configuration having usable minimum space of 1.5 TB or more
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	Operating system	UNIX/LINUX/Microsoft Windows Server latest version with 24X7 support

2.24.10 Fire Extinguisher

S.No	Features	Parameter
1	Capacity	10Kg 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 01 years etc.
11	Inspection	Pre Delivery Inspection (PDI) of the materials will be carried out at site

2.24.11 Antivirus

S.No	Features	Parameter
1	Antivirus	Licensed Antivirus shall be provided for servers and workstations along with update subscription valid till CAMC period of the offered system

2.24.12 Air Conditioner

S.No	Features	Parameter
1	Air conditioner	Type: Split AC Tonnage: 2TR or more

2.24.13 Wireless Collar Mic. and Speaker

S.No	Features	Parameter
1	Polar Pattern	Omnidirectional
2	Frequency Resistance	80-18000Hz
3	Sensitivity	-65dB±3dB
4	Impedance	> 1000Ω
5	Power Supply	1.5v DC

2.24.14 Internet Connectivity (Leased Line)

S.No	Features	Parameter
1	Downloading & Uploading Speed	Minimum 1 Mbps
2	Post FUP Speed	1 Mbps

2.24.15 Miscellaneous Accessories

S.No	Features	Parameter
1	Wall Mount Metal Cabinet (Vertical/Horizontal)	Including all accessories for mounting all the items of required for setting up of this Smart classroom equipment's.

2.24.16 Desktop for Centralized E-Library

S.No	Features	Parameter
1	Desktop for Data Centre	CPU Specification: Processor: Minimum i7 or higher Intel Processor

		<p>operating at 3.4 GHz or more with 16 MB Cache or higher, HD integrated graphics card</p> <p>Video Card: 1 GB NVidia Ge Force DVI or better dual port Graphics card</p> <p>RAM: 8 GB DDR 3 or higher</p> <p>HDD: 2TB HDD SATA 7200rpm or more</p> <p>RAID: Supported</p> <p>OS: Pre-loaded Windows 10 (or latest) Professional 64 bit, licensed copy All Utilities and driver software, bundled in CD/DVD/Pen-drive media</p> <p>Optical Drive: DVD drive with both read and write capability</p> <p>USB Ports: At least 2nos. spare USB ports front and rear both other than those required for the system</p> <p>HDMI Ports: At least 2nos.</p> <p>Display Port: At least 1 no.</p> <p>Optical: DVD \pmRW</p> <p>Key Board: Minimum 109 keys or more</p> <p>Key Board & Mouse – Wireless/Wired</p> <p><u>Monitor Specification:</u></p> <p>Size : 24" TFT LED</p> <p>Resolution : Maximum 1920x1080</p> <p>Input Ports : Minimum 1xDVI, 1x HDMI, 1xDVI</p> <p>Certificate : Energy star 5.0/BEE star certified</p>
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2.24.17 Network Attached Storage (NAS) for CCTV Camera Storage

S.No	Features	Parameter
1	Network Attached Storage (NAS) for CCTV Camera Storage	<p>Controller: Dual Active-Active Controllers in active failover mode with no single point of failure</p> <p>On-board Cache: Mirrored</p> <p>Storage Disk: 7200 rpm or better SATA</p> <p>Host Interface: At least four or more Gigabit Ethernet (IP) ports and four FC ports</p> <p>HDD type support: SAS, SSD, NL-SAS/ SATA</p> <p>Inbuilt RAID Support: RAID- Double Disk failure support/RAID-6/ RAID-5</p> <p>Network Transport Protocols: TCP/IP</p> <p>Server /Storage should support Protocol: (at least six) CIFS, NFS, iSCSI, FCP, HTTP/HTTPS, FTP, NTP, SNMP, SMTP, DHCP and DNS</p> <p>Operating System (OS): Built-in OEM OS/MS Windows/Linux/Unix OS</p> <p>Power supply: Hot pluggable redundant</p> <p>Storage File Management Software: Inbuilt GUI/CLI/ Web Based administration management software</p> <p>Chassis Type: Rack mountable</p> <p>Scalability: The offered storage shall be scalable to add additional 50% usable capacity at site within the same storage.</p> <p>Storage System should be provided with:</p> <p>No other upgrades should be required for desired scalability except for disk Arrays enclosures and Disk drives as required. Once data is stored in Storage, no</p>

		client/operator should be able to delete or modify data. NAS Storage: Data storage should be at a central location. The Capacity of storage should be for the period of continuous 30 days. The storage system should follow FIFO on recording.
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2.24.18 Servers for Centralized E-Library

S.No	Features	Parameter
1	Servers for Centralized Equipment Centre	<p>CPU: Minimum Two Processor of 6 Core each or higher Intel/AMD CPU operating at 3.4 GHz or more with a minimum of 12 MB cache or higher</p> <p>Memory: 32 GB DDR RAM Upgradable to 128 GB</p> <p>Chassis Type: Rack mountable</p> <p>Hard Drives: SAS 10K/SATA rpm or higher hot swappable Hard Disk in RAID 5 or 6 configuration having usable minimum space of 1.5 TB or more.</p> <p>Power supply: Redundant Power Supply and inbuilt cooling system</p> <p>Network Adapter(NIC): Dual Integrated 10/100/1000 Mbps ports</p> <p>Ports: At least 2 free PCIE I/O slots, 4 USB ports</p> <p>Operating system: UNIX/LINUX/Microsoft Windows Server latest version with 24X7 support</p>

2.24.19 Software/Application for Network Management System (NMS)

S.No	Features	Parameter
1	Software/Application for Network Management System (NMS)	<p>1. Network Management System (NMS)</p> <ul style="list-style-type: none"> Network administrator has to manage and troubleshoot a wireless network supporting a wide variety of mission-critical applications will use the Network Management System (NMS). It is critically important that the NMS complies with all industry standards and has a flexible architecture that will support a Wireless LAN with hundreds of wireless access points and end users in multiple locations. The NMS must comply with all relevant IEEE standards. Explain any standards that are not supported. The NMS must scale to support up to 1000+ wireless nodes, providing the ability to manage and monitor each node individually or as part of a group. Explain how many wireless nodes can be supported via the NMS and discuss how the system architecture. Discuss any limitations on NMS performance as the network grows. The NMS must provide a browser-based user interface that supports all major browsers. The NMS must run on standard server hardware. Specify and Provide hardware for the NMS The NMS must provide different levels of management access based on an individual's role. At a minimum, the NMS must distinguish between „administrative users_ (with permission to change device configurations) and „monitoring users_ (without permission to modify configurations). Ideally, users should be able to be

		<p>assigned different management privileges for specified subsets of wireless access points. Explain what management levels are supported via the NMS.</p> <ul style="list-style-type: none"> ▪ Each user of the NMS must be assigned a unique user ID and password, and all actions taken by that user must be logged individually for accountability. ▪ The NMS must support nightly backup of all critical data and provide a simple restoration process in the event of hardware failure. ▪ The NMS must provide comprehensive help files <ol style="list-style-type: none"> 2. Configuration Management as per project requirement 3. Audit Management & Policy Endorsement as per project requirement 4. Network & User Monitoring as per project requirement 5. Firmware Distribution & Management as per project requirement 6. Trend Reporting as per project requirement 7. Dynamic RF Management as per project requirement 8. RF Planning & Provisioning as per project requirement 9. Wireless Intrusion & Detection System (WIPS/ WIDS) as per project requirement 10. NMS Management as per project requirement
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2.24.20 Modern Chair with Table

S.No	Features	Parameter
1	Modern Chair with Table	<p>School / University Student Classroom Wood Chair with Tablet</p> <ol style="list-style-type: none"> 1. Frame: Cold-rolled steel tube, powder-coating finish after anti-rust treatment 2. Seat: Plywood 3. Writing-table: Plywood 4. Book-basket bottom of chair 5. Finishing: Powder Coating

2.25 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. A judicious mix of software applications will be introduced in schools.

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 each Schools for enhanced Teaching and Learning experience

Apart from the above mentioned Hardware for the Digital Classroom, IT Labs and Digital Libraries KSCL wants to

- Procure Software's which are required to enable smooth e-Learning operations,
- Integrate learning management system in two languages for all schools,
- Create school functioning/administration system and integrate it with proposed Command and Control Centre of KSCL.
- 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.

➤ **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, KSCL).

2.25.1 Manpower Requirements

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

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

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

2.25.2 Operational Support

The main objective of Operational Support would be to ensure efficient and reliable management of the IT infrastructure and services required for running the solution and related applications and hardware / networks during the contract period.

The support should cover all aspects of the following services (including but not limited to):

- Systems Administration
- Network Administration
- Database Administration
- Communication Management Services
- Disaster Recovery Services
- Software Update Management Services
- Maintenance Services
- Help Desk Services

Support must be for the entire duration of contract of entire equipment, including, but not limited to:

- Management of all servers, peripherals, network equipment and connectivity (that is the responsibility of the SI) to ensure at least 99% uptime.
- Resolving all problems pertaining to all servers, peripherals, network equipment and connectivity to ensure at least 99% uptime for all equipment. This would include interfacing with all other third party vendors, ISPs, agencies involved in running of the IT infrastructure.
- Resolving all problems and issues at all locations with respect to anything concerning the application.
- Carrying out preventive maintenance in addition to corrective maintenance.
- Systems administration activities such as managing security / access systems, ensuring server backups, disk management etc.
- Replacement of systems / equipment that is non-functioning.

2.26 Training and Capacity Building for Sustainable E-Pathshala Management

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 KSCL involves many officials and School staffs. A baseline data collection has been taken through initial survey of schools and discussion with the DIOS and 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.

2.27 Training and Capacity Building Approach

13. The training program shall be required to prepare and organize to facilitate the user departments in the efficient usage of the whole system.
14. The training shall provide as per the proposed training schedule to be shared with the client
15. The training is required to conduct a Training Needs Analysis of all the concerned staff and draw up a systematic training plan in line with the overall project plan. For all these training programs provide necessary course material and reference manuals (user/ maintenance/ administration).
16. The training shall provide to system users to efficiently use the system. The teachers/ staff thus trained would subsequently train the other teachers/staff as required.
17. Based on the roles and responsibilities of the client officials at various levels, the training plan should be proposed; it should address level wise functional and general training requirements in accordance with the existing skillset and capacity of the officials.
18. The training has to provide Application Training for approximately 50 Teachers, 25 Users / Admins in various aspects of application use and System Administration. A Batch size would not in normal cases be more than 50.
19. Training Room will be provided by the procuring entity. Training would be held in various selected schools of the project area that would be discussed with the concerned authority.
20. "Train the Teacher" Training would need to be provided to approximately 10 teachers in each of the modules. A detailed training schedule, including the dates, areas to be covered, time and the training literature (to be supplied to Client) at various stages of the training cycle and feedback for effectiveness will be agreed to by both parties during the performance of the Contract.
21. Training shall encompass the knowledge of detailed functionalities of department specific modules for each of the concerned departmental users along with basic functionality of the entire solution. For imparting training; will have to provide training material, trainer, along with training infrastructure such as, overhead projector, etc., trainings shall be provided as per the training schedule.

22. Training shall be imparted in Hindi and English language as per the requirement of the trainees. The printed manuals and training manuals should also be available in Hindi and English Language.
23. Required to provide CBT (Computer Based Training) for each of the functional module on the intranet / soft copy / CDRom for reference of the Teachers. CBT has to be in both Hindi and English Language.
24. The teachers 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 trainee 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.

2.28 Providing Training to Subject Teachers and Students

2.28.1 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.

2.28.2 Training Delivery

The training shall be conducted at the District Headquarters/Office of KSCL/ 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.

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.
- 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. The average number of teachers to be trained per school will not exceed 5.

- 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 Kanpur Smart City Limited or agency authorized by KSCL.

- At least **5 teachers** from each school needs to be trained.
- Each training program will have maximum **50 persons**.
- KSCL will provide training space for the training of teachers. Necessary infrastructure from Schools such as computing equipment's would be used for the training.

Section-III
**General
Conditions
of
Contract**

3 General Conditions of Contract (GCC)

3.1 Governing Law

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

3.2 Project Implementation Schedule, Deliverables and Payment Terms

3.2.1 Deliverables & Payment Schedule

The delivery period of Smart Classroom systems shall be 6 months only as per the schedule given below:

Sl No	Key Deliverables	Timelines	Payment Milestones
1	Project Go Live <ul style="list-style-type: none"> Supply, Installation & Commissioning of Computer, Projection System, power backup and Smart Board Supply, Installation, Commissioning of balance Hardware, Networking, internet connection (Wi Fi) and other Equipment for smart class Procurement (Development) Customization and Deployment of Software, Academic Content. Training and Hand holding (including fixes of any gaps/issues) & Go-Live 	Within 180 days	60%- For each school where supply, installation and commissioning is completed, pro-rata payment shall be released.
2	Operations and Maintenance	For 5 Years after Go Live	30% - to be paid on equal instalments every quarter. Separate payments shall be made to the Internet Service Provider who shall be required to raise an invoice quarterly.
3	Hand Over of the System	After CAMC period of 5 Years	10%

1. Amount to be released after successful handing over of assets in running condition with all updated software once completion of 5th year from the date of commissioning
2. Running account (RA) bill to be raised on Quarterly basis for O&M phase only.

The amounts of guarantees and the payment schedule are presented below:

1. Performance Bank Guarantee (PBG) amount in Indian rupees equivalent to 10% of the contract value shall be deposited in the form of Bank guarantee in prescribed format in **Annexures-8** to the procuring entity within 15 days from the date of issuing of Letter of Intent (LoI).
2. The Procuring Entity will issue the completion certificate after completion of testing and trials of the systems installed in all 06 classrooms. Engineer in charge or his representative shall undertake joint site visit to ensure possession of all sites immediately

after issuing Notice to Proceed (NTP). A Handing over/Taking over of Sites Note shall be prepared after physical visiting the site detailing out any hindrances, if any

3. On issuance of completion certificate after completion of CAMC, the procuring entity will release the PBG to the successful bidder.
4. If Successful bidder requests for mobilization advance, following conditions shall be applicable-
 - Mobilization advance can be maximum of 5% of contract value.
 - Mobilization advance shall be released only after receipt and verification of Bank Guarantee of 110% of the requested amount.
 - Mobilization advance shall be interest bearing and PLR rate of interest shall be payable to KSCL by the successful bidder.
 - Mobilization advance will be adjusted after submission of successful commissioning certificate by the KSCL of the project.

3.3 Payment Terms

1. Payments shall be made. As mentioned in **clause 3.2.1** above.
2. The Bidder's request(s) for payment shall be made to the procuring entity in writing, accompanied by an invoice describing, as appropriate, services completed. The invoice should be submitted and upon fulfillment of other obligations stipulated in the contract.
3. Payments shall be made promptly by the procuring entity as soon as possible after submission of the invoice or claim by the Bidder, only after quality inspection and Verification by the procuring entity's Official of the conformity of the Goods/Products/Services/Solutions supplied as per the agreed specifications.
4. Payment shall be made in Indian Rupees by RTGS / NEFT direct to the bank account of the contractor.
5. All remittance charges shall be borne by the Successful Bidder.
6. In case of disputed items, the disputed amount shall be withheld and shall be paid only after settlement of the dispute.
7. Any penalties/ liquidated damages, as applicable, for delay and non-performance, as mentioned in this tender document, shall be deducted from the due payments of the respective milestones.
8. Taxes, as applicable, shall be deducted / paid, as per the prevalent rules and regulations
9. It is the responsibility of the bidders to quote for and provide all the Hardware and Software for meeting all the requirements of the tender document. In case during evaluation, it is found that certain Hardware or Software which is critical for meeting the requirement of this tender document and has not been quoted as part of Bill of material (BoM), 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 tender document 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 procuring entity.

3.4 Confidential Information

Procuring Entity 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 here to in connection with the Contract, whether such information has been furnished prior to, during or following completion or termination of the Contract.

The Successful Bidder shall not use the documents, data, and other information received from procuring entity for any purpose other than the services required for the performance of the Contract.

3.5 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 there by been affected in the performance of any of its obligations under the Contract.

3.6 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 procuring entity in its so veering 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 procuring entity in writing of such condition and the cause thereof. Unless otherwise directed by procuring entity 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.

3.7 Settlement of Disputes

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 days after receipt. If that party fails to respond within 30 days, or the dispute cannot be amicably settled within 60 days following the response of that party.

3.8 Extensions of Time

1. If at any time during performance of the Contract, the Successful Bidder should encounter conditions impeding timely delivery of the Services, the Successful Bidder shall promptly notify procuring entity in writing of the delay, its likely duration, and its cause. As soon as practicable after receipt of the Successful Bidder notice, procuring entity shall evaluate the situation and may at its discretion extend the Successful Bidder time for performance in writing.
2. 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 procuring entity, unless an extension of time is agreed mutually.

3.9 Termination

1. Procuring entity may, without prejudice to any other remedy for breach of Contract, terminate this Contract in case of the occurrence of any of the events specified in paragraphs (1) through (11) of this GCC Clause 3.9. In such an occurrence, procuring entity shall give a not less than 30 days' written notice of termination to the Successful Bidder.
2. If the Successful Bidder does not remedy a failure in the performance of its obligations under the Contract, within thirty (30) days after being notified or within any further period as procuring entity may have subsequently approved in writing.
3. If the Successful Bidder becomes insolvent or goes into liquidation, or receivership whether compulsory or voluntary.
4. If, in the judgment of procuring entity has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.
5. 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 30 days.
6. If the Successful Bidder submits to the procuring entity a false statement which has a material effect on the rights, obligations or interests of procuring entity.

7. If the Successful Bidder places itself in a position of conflict of interest or fails to disclose promptly any conflict of interest to procuring entity.
8. If the Successful Bidder fails to provide the quality services as envisaged under this Contract, procuring entity may make judgment regarding the poor quality of services, the reasons for which shall be recorded in writing. Procuring entity may decide to give one chance to the Successful Bidder to improve the quality of the services.
9. If the Successful Bidder fails to comply with any final decision reached as a result of arbitration proceedings.
10. If procuring entity, in its sole discretion and for any reasons what so ever, decides to terminate this contract.
11. In the event procuring entity terminates the Contract in whole or in part, pursuant to GCC Clause 3.9, procuring entity 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 procuring entity for any additional costs for such similar services. However, the Successful Bidder shall continue performance of the Contract to the extent not terminated.

3.10 Payment upon Termination

Upon termination of this Contract pursuant to GCC **Clauses 3.9**, the procuring entity shall make the following payments to the Successful Bidder:

- a) If the Contract is terminated pursuant to GCC **Clause 3.9 (10)**, remuneration for Services satisfactorily performed prior to the effective date of termination.
- b) If the agreement is terminated pursuant of GCC **Clause 3.9 (1) to 3.9 (9)**, the Successful Bidder shall not be entitled to receive any agreed payments upon termination of the contract. However, the procuring entity 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 procuring entity. Applicable under such circumstances, upon termination, the procuring entity may also impose liquidated damages. The Successful Bidder will be required to pay any such liquidated damages to procuring entity within 30 days of termination date.

3.11 Assignment

If Successful Bidder fails to render services in stipulated timeframe and as per schedule, procuring entity, at its discretion and without any prior notice to Successful Bidder, may discontinue or minimize scope of work or procure/board any other similar agency to render similar services to complete project in stipulated timeframe.

3.12 Service Level Agreement

1. The service levels to be established for the Services offered by the Successful Bidder to the procuring entity. The Successful Bidder shall monitor and maintain the stated service levels to provide quality service to the procuring entity.
2. The SLAs may be reviewed on quarterly basis as the procuring entity decides after taking the advice of the Successful Bidder and other agencies. All the changes shall be made by the procuring entity in consultation with the Successful Bidder.
3. 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 procuring entity or an agency designated by them, then the procuring entity shall have the right to take appropriate punitive actions including termination of the contract.
4. 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.

3.13 SLA Terms

Parameter for SLA	Penalty
Development / Customization, Testing, Acceptance, installation, commissioning and Implementation of Text Book based educational Software application.	Penalty of Rs 2000.00 per class room per week where the installation is incomplete.
Up to 48 hours from the logging of the complaint with the bidder	Nil
Beyond 48 hours up to 15 days from the logging of the complaint with the bidder	Rs. 500.00 per week of the total value of the defective equipment/ Software
Beyond 15 days of the logging of the complaint till rectification of the Fault	Rs. 1000.00 per week of the total value of the defective equipment/software
Availability of Trainer	Penalty of Rs 2000.00 per week of absence of trainer.
Unavailability of Internet Facility	Penalty of Rs 500.00 per day for down time.

3.14 SLAs to be complied

3.14.1 Service Level Requirement

R1, R2, R3 – 100% within response and resolution times

3.14.2 Measurement of Service Level Parameter

Support query should be classified in following three categories

Severity Level 1 (R1)

System issues that have the greatest business impact wherein application users are not able to perform his/her regular work at a time or there is a downtime of the Smart Classroom solution, Servers, or equipment, at one or more locations.

Severity Level 2(R2)

System issues that have medium business impact wherein the user is partially able to perform his/her regular work. But the system not fully functional and has bugs, errors, faults etc. For example, user is able to login and perform most of his normal work, but some of the features have issues e.g. some supplementary reports are not available, some misalignment in reports, some role access issues, privileges conflicts, slow fetching of data etc.

Severity Level 3 (R3)

System issues which have the least/no business impact on working, e.g. change of profile settings, Screen resolution issues, Customer tracking, error popup, messages etc.

In any case, if the equipment is not made operational within 8 days from the time of reporting of fault, the Performance Security submitted by the Bidder to the department shall be invoked.

Any payments (payable to Bidder) shall not be paid too. This will be deemed to be an event of default and the department may initiate show cause notice after which if the issue still remains unresolved the purchaser reserves the right to terminate the contract forthwith. The delay due to force majeure conditions, closure of Site/no accessible of Site, theft, burglary etc. shall be excluded from the penalty subject to submission of notice/ letter/ document duly endorsed by concerned authorities.

- a) The primary goal of Testing & Acceptance is to ensure that the project meets requirements, standards, specifications and performance prescribed by the tender document.
- b) Completion of any other tests/evaluation criteria that the department may specify.
- c) The Acceptance Tests for the Hardware and Networking Components shall involve successful supply, delivery at Site, installation and commissioning of systems at all implementation locations of the project.

d) In the event of the Site not being allocated, the bidder and KSCL may mutually agree to redefine the milestones by following appropriate change control process, to be defined in the contract. On successful completion of the Acceptance Test(s) and after the Committee so constituted by the department to conduct the said Acceptance Tests are satisfied with the working of the system, the acceptance certificates shall be Signed by the Bidder and authorized representative(s) of the department.

Any delay by the Bidder in the performance of its contracted obligations shall render the bidder liable to the imposition of penalties, as deemed appropriate change control process, to be defined in the contract.

All components & deliverables of the Applications, hardware, networking components, software and other peripherals, as the case may be, would be deemed accepted on attainment of the receipt of Site Acceptance Certificate from each Location.

Any delay attributable to the bidder in the Acceptance Testing shall render the bidder liable to the imposition of appropriate penalties, as mentioned in the tender documents.

3.15 Other Conditions

- a) The Successful Bidder should comply with all applicable laws and rules of GoI/GoUP/KNN.
- b) Support Executive/Supervisor deployed by the Successful Bidder shall not have right to demand for any type of permanent employment with procuring entity or its allied Offices.
- c) CEO, KSCL reserves the right to withdraw / relax any of the terms and condition mentioned in the tender document, so as to overcome the problem encountered at a later stage for the smooth and timely execution of the project.

3.16 Risk Purchase

Incompetency, termination, misconstruction or illicit withdrawal, the CEO, KSCL reserves the right to procure the same or similar services from the alternate sources at risk, cost and responsibility of the Successful Bidder.

3.17 Definitions

For the purpose of clarity, the following words and expressions shall have the meanings hereby assigned to them:

- a) Contract means the Agreement entered between the KSCL and the selected bidder, together with the Contract Documents referred to therein, including all attachments, appendices, and all documents incorporated by reference therein.
- b) Contract Documents means the documents listed in the Agreement, including any amendments thereto.

- c) Contract Price means the price payable to the selected bidder as specified in the Agreement, subject to such additions and adjustments thereto or deductions there from, as may be made pursuant to the Contract.
- d) Day means a calendar day.
- e) Delivery means the transfer of the Goods from the selected bidder to the KSCL in accordance with the terms and conditions set forth in the Contract.
- f) Completion means the fulfilment of the related services by the selected bidder in accordance with the terms and conditions set forth in the Contract.
- g) Goods means all of the commodities, raw material, machinery and equipment, and/or other materials that the selected bidder is required to supply to the KSCL under the Contract.
- h) KSCL means the entity purchasing the Goods and related services, as specified in the bidding document.
- i) Related Services means the services incidental to the supply of the goods, such as insurance, installation, training and initial maintenance and other similar obligations of the selected bidder under the Contract.
- j) Subcontractor means any natural person, private or government entity, or a combination of the above, including its legal successors or permitted assigns, to which any part of the Goods to be supplied or execution of any part of the related services is subcontracted by the selected bidder.
- k) Bidder means the person, private or government entity, or a combination of the above, whose Bid to perform the Contract has been accepted by the KSCL and is named as such in the Agreement, and includes the legal successors or permitted assigns of the selected bidder.
- l) The Site, where applicable, means the designated project place(s) named in the bidding document.

Note: The bidder shall be deemed to have carefully examined the conditions, specifications, size, make and drawings, etc., of the goods to be supplied and related services to be rendered. If the bidder has any doubts as to the meaning of any portion of these conditions or of the specification, drawing, etc., he shall, before submitting the Bid and signing the contract refer the same to KSCL and get clarifications.

Contract Documents: Subject to the order of precedence set forth in the Agreement, all documents forming the Contract (and all parts thereof) are intended to be correlative, complementary, and mutually explanatory.

3.18 Interpretation

- a) If the context so requires it, singular means plural and vice versa.

- b) Entire Agreement: The Contract constitutes the entire agreement between the KSCL and the bidder and supersedes all communications, negotiations and agreements (whether written or oral) of parties with respect thereto made prior to the date of Contract.
- c) Amendment: No amendment or other variation of the Contract shall be valid unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each party thereto.
- d) Non-waiver: Subject to the condition (f) below, no relaxation, forbearance, delay, or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect or restrict the rights of that party under the Contract, neither shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract.
- e) Any waiver of a party's rights, powers, or remedies under the Contract must be in writing, dated, and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.
- f) Severability: If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.
- g) Scope of work can vary $\pm 15\%$ based on the requirements of the project. All the variations have to be accommodated within the defined BoQ amount as provided by successful bidder.
- h) Any increase in the scope of work under project requirement will be reviewed and considered by the Technical Evaluation Committee (TEC).

3.19 Language

- a) The Contract as well as all correspondence and documents relating to the Contract exchanged by the bidder and the KSCL, shall be written in English language only. Supporting documents and printed literature that are part of the Contract may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified in the special conditions of the contract, in which case, for purposes of interpretation of the Contract, this translation shall govern.
- b) The bidder shall bear all costs of translation to the governing language and all risks of the accuracy of such translation.

3.20 Eligible Goods and Related Services

- a) For purposes of this Clause, the term goods include commodities, raw material, machinery, equipment, and industrial plants and related services, such as insurance,

transportation, supply, installation, integration, testing & commissioning, training, and initial maintenance.

- b) The Bidder must have its own registered spares depot in India having adequate inventory of the equipment being quoted for providing the necessary spares within next business day or maximum 24 hours.
- c) The Bidder should also have its direct representation in India in terms of registered office for at least past 3 years. The presence through any Distribution / System Integration partner agreement will not be accepted.
- d) Bidder must quote products in accordance with above clause Eligible goods and related services.

3.21 Notices

- a) Any notice given by one party to the other pursuant to the contract shall be in writing to the address specified in the contract. The term in writing means communicated in written form with proof of dispatch and receipt.
- b) A Notice shall be effective when delivered or on the Notice's effective date, whichever is later.
Governing Law: The Contract shall be governed by and interpreted in accordance with the laws of Uttar Pradesh State, India, unless otherwise specified in the contract.

3.22 Scope of Supply

- a) Subject to the provisions in the bidding document and contract, the goods and related services to be supplied shall be as specified in the bidding document.
- b) The bidder shall not quote and supply any hardware that is likely to be declared as End of Sale in next 12 months and End of Service / Support for a period of 60 months from the last date of bid submission. OEMs are required to mention this in the MAF (manufacturer authorization form) for all the quoted hardware. If any of the hardware is found to be declared as End of Sale/ Service/ Support, then the bidder shall replace all such hardware with the latest ones having equivalent or higher specifications without any financial obligation to the KSCL.
- c) Unless otherwise stipulated in the Contract, the scope of supply shall include all such items not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required for attaining delivery and completion of the goods and related services as if such items were expressly mentioned in the Contract.

3.23 Delivery

- a) Subject to the conditions of the contract, the delivery of the goods and completion of the related services shall be in accordance with the delivery and completion schedule

specified in the bidding document. The details of supply / shipping and other documents to be furnished by the selected bidder with invoices.

- b) The contract for the supply can be repudiated at any time by the purchase officer, if the supplies are not made to his satisfaction after giving an opportunity to the bidder of being heard and recording the reasons for repudiation.
- c) The Bidder shall arrange to supply, install the ordered materials / system as per specifications within the specified delivery / completion period at offices / locations mentioned in the PO/WO.
- d) Shifting the place of delivery: The user will be free to shift the place of delivery within the same city / town / district/ division. The selected bidder shall provide all assistance, except transportation, in shifting of the equipment. However, if the city/town is changed, additional charges of assistance in shifting and providing maintenance services for remaining period would be decided mutually.

3.24 Bidder's/ Selected Bidder's Responsibilities

The Bidder shall supply all the goods and related services included in the scope of supply in accordance with the provisions of bidding document and / or contract.

3.25 KSCL's Responsibilities

Whenever the supply of goods and related services requires that the bidder obtain permits, approvals, and import and other licenses from local public authorities, the KSCL shall, if so required by the bidder, make its best effort to assist the bidder in complying with such requirements in a timely and expeditious manner.

3.26 Contract Price

- a) The contract price shall be paid as specified in the contract subject to any additions and adjustments thereto, or deductions there from, as may be made pursuant to the contract.
- b) Prices charged by the bidder for the goods delivered and the related services performed under the contract shall not vary from the prices quoted by the bidder in its bid, with the exception of any price adjustments authorized in the special conditions of the contract.

3.27 Terms of Payment

The bidder's request for payment shall be made to the KSCL in writing, accompanied by invoices describing, as appropriate, the goods delivered and related services performed, and by the documents submitted and upon fulfilment of all the obligations stipulated in the contract.

3.28 Performance Security

Performance Security amounting to total 10% of contract value shall be submitted as follows:

- a) Contractor shall submit Performance Security @ 10% in advance at the time of signing of agreement in form of BG as per latest rules under Uttar Pradesh Govt. The BG should be issued by any nationalized / schedule bank and shall remain valid up to 45 days beyond CAMC period.
- b) If the Bid, which results in the lowest evaluated bid price, is seriously unbalanced or front loaded in the opinion of the Procuring entity, the Procuring entity may require the bidder to produce detailed price analysis for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analysis, taking into consideration, the schedule of estimated Contract payments, the Procuring entity may require that the amount of the performance security shall be increased to 10% of the bid value of such items at the expenses of the bidder to a level sufficient to protect the Procuring entity against financial loss in the event of default of the successful Bidder under the Contract.

3.29 Taxes & Duties

The contractor shall be responsible for pay all type of taxes/duties/cess including service tax, GST or any other levies imposed by the government and assessed as due and payable by the contractor associated with the carrying out of the services. The Kanpur Smart City Limited shall be entitled to withhold or deduct from payment/ RA bill to the contractor any amount demanded by the competent authority.

3.30 Copyright

The copyright in all drawings, design documents, source code and other materials containing data and information furnished to the KSCL by the bidder herein shall remain vested in the selected bidder, or, if they are furnished to the KSCL directly or through the bidder by any third party, including bidders of materials, the copyright in such materials shall remain vested in such third party.

3.31 Specifications and Standards

Technical Specifications and Drawings:

- a) The bidder shall ensure that the goods and related services comply with the technical specifications and other provisions of the contract.
- b) The bidder shall be entitled to disclaim responsibility for any design, data, drawing, specification or other document, or any modification thereof provided or designed by or on behalf of the KSCL, by giving a notice of such disclaimer to the KSCL.

- c) The goods and related services supplied under this contract shall conform to the standards mentioned in section, schedule of supply and, when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate to the country of origin of the goods.

3.32 Technical Specifications and Drawings

Wherever references are made in the contract to codes and standards in accordance with which it shall be executed, the edition or the revised version of such codes and standards shall be those specified in the section, schedule of supply. During contract execution, any changes in any such codes and standards shall be applied only after approval by the KSCL and shall be treated in accordance with relevant clause.

3.33 Warranty

- a) The bidder warrants that all the goods are new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials.
- b) The Bidder further warrants that the goods shall be free from defects arising from any act or omission of the bidder or arising from design, materials, and workmanship, under normal use in the conditions prevailing in the country of final destination., the warranty shall remain valid for 36 months after the Goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination.
- c) The KSCL shall give notice to the bidder stating the nature of any such defects together with all available evidence thereof, promptly following the discovery thereof.
- d) The bidder shall repair or replace the defective goods or parts thereof, at no cost to the KSCL. If have been notified, the Bidder fails to remedy the defect within the period specified, the KSCL may proceed to take within a reasonable period such remedial action as may be necessary, at the bidder's risk and expense and without prejudice to any other rights which the KSCL may have against the bidder under the contract.

3.34 Indemnity

The Bidder shall, subject to the KSCL's compliance with GCC relevant Sub-Clause, indemnify and hold harmless the KSCL and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the KSCL may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of. The installation of the Goods by the Bidder or the use of the Goods in the country where the Site is located; and

- a) The sale in any country of the products produced by the goods. Such indemnity shall not cover any use of the goods or any part thereof other than for the purpose indicated by or to be reasonably inferred from the contract, neither any infringement resulting from the use of the goods or any part thereof, or any products produced thereby in association or combination with any other equipment, plant, or materials not supplied by the bidder, pursuant to the contract.
- b) If any proceedings are brought or any claim is made against the KSCL arising out of the matters referred to in GCC, the KSCL shall promptly give the bidder a notice thereof, and the bidder may at its own expense and in the KSCL's name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim. The KSCL shall indemnify and hold harmless the bidder and its employees, officers, and subcontractors from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorney's fees and expenses, which the bidder may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract arising out of or in connection with any design, data, drawing, specification, or other documents or materials provided or designed by or on behalf of the KSCL.

3.35 Sub-Contracting

- a) Unless otherwise specified in the contract, the bidder shall not assign or sub-let his contract or any substantial part thereof to any other agency without the permission of KSCL / Tendering Authority.
- b) If permitted, the selected bidder shall notify the KSCL, in writing, of all subcontracts awarded under the contract, if not already specified in the Bid.
- c) Subcontracting shall in no event relieve the bidder from any of its obligations, duties, responsibilities, or liability under the Contract.
- d) Subcontracts shall comply with the provisions of bidding document and/ or contract.

3.36 Packing and Documents

- a) The Bidder shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their destination, as indicated in the Contract. During transit, the packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme temperatures, salt and precipitation, and open storage. Packing case size and weights shall take into consideration, where appropriate,

the remoteness of the destination of the Goods and the absence of heavy handling facilities at all points in transit.

- b) The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified in the contract, and in any other instructions ordered by the KSCL.

3.37 Insurance

The Goods supplied under the Contract shall be fully insured, against loss by theft, destruction or damage incidental to manufacture or acquisition, transportation, storage, fire, flood, under exposure to weather and delivery at the designated project locations, in accordance with the applicable terms. The insurance charges will be borne by the Bidder and KSCL will not be required to pay such charges if incurred.

The goods will be delivered, installed and commissioned FOR destination in perfect condition.

3.38 Transportation

The bidder shall be responsible for the proper packing to avoid damage under normal conditions of any mode of transportation and delivery of the material in the good condition to the consignee at destination. In the event of any loss, damage, breakage or leakage or any shortage the bidder shall be liable to make good such loss and shortage found at the checking / inspection of the material by the Consignee. No extra cost on such account shall be admissible.

3.39 Inspection

The supplier shall intimate at least 15 days in advance about the readiness of material to commensurate with the delivery schedule for getting material inspected. The procuring entity at its discretion may depute inspecting officer to test/examine and inspect the material at the supplier's workhouse.

Such inspection and acceptance for dispatch shall not however relieve the supplier from entire responsibility for supplying the material conforming to the requirements of the order nor shall it be a prejudice to any claim because of defective or unsatisfactory materials.

3.40 Rejection

- a) Articles / Goods not approved during inspection or testing shall be rejected and will have to be replaced by the selected bidder at his own cost within the time fixed by the Purchase Officer.

- b) The rejected articles / goods shall be removed by the Bidder/ bidder/ selected bidder within 15 days of intimation of rejection, after which Purchase Officer shall not be responsible for any loss, shortage or damage and shall have the right to dispose of such articles as he thinks fit, at the selected bidder's risk and on his account.

3.41 Extension in Delivery Period

- a) Except as provided under clause Force Majeure, if the bidder fails to deliver any or all of the Goods or perform the Related Services within the period specified in the Contract, the KSCL may without prejudice to all its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in (d) below for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in the bidding document and / or contract. Once the maximum is reached, KSCL may terminate the Contract pursuant to clause Termination.
- b) The time specified for delivery in the tender form shall be deemed to be the essence of the contract and the bidder shall arrange goods supply and related services within the specified period.
- c) Delivery and installation / completion period may be extended with or without liquidated damages, if the delay in the supply of goods or service is on account of hindrances beyond the control of the bidder.
- d) The bidder shall request in writing to KSCL giving reasons for extending the delivery period of service, if he finds himself unable to complete the supply of goods or service within the stipulated delivery period or is unable to maintain prorate progress in the supply of goods or service delivery. This request shall be submitted as soon as a hindrance in delivery of goods and service occurs or within 15 days from such occurrence but before expiry of stipulated period of completion of delivery of goods and service after which such request shall not be entertained.
- e) The KSCL shall examine the justification of causes of hindrance in the delivery of goods and service and the period of delay occurred due to that and recommend the competent authority on the period of extension which should be granted with or without liquidated damages.
- f) Normally, extension in delivery period of goods and service in following circumstances may be considered without liquidated damages:
- When delay has occurred due to delay by Kanpur Smart City Limited in performing any of the duties to be performed by them as mentioned in the Chapter Titled Scope of Work, Deliverables and Timelines.

- When delay has occurred in supply of materials etc. if these were required to be supplied to the bidder or service provider by Kanpur Smart City Limited as per terms of the contract.
- g) If the competent authority agrees to extend the delivery period/ schedule, an amendment to the contract with suitable denial clauses and with or without liquidated damages shall be issued. The amendment letter shall mention that no extra price or additional cost for any reason, what so ever beyond the contracted cost shall be paid for the delayed supply of goods and service.
- h) It shall be at the discretion of the concerned authority to accept or not to accept the supply of goods and / or services rendered by the contractor after the expiry of the stipulated delivery period, if no formal extension in delivery period has been applied and granted. The competent authority shall have right to cancel the contract with respect to undelivered goods and/ or service.
- i) If Kanpur Smart City Limited needs the good and / or service rendered after expiry of the stipulated delivery period, it may accept the services and issue a letter of extension in delivery period with usual liquidated damages and denial clauses to regularize the transaction.

3.42 Liquidated Damages/Penalty for delay

In case of extension in the delivery and/or installation/completion/commissioning period is granted with penalty / liquidated damages, the recovery for the un-finished work on pro-rata basis, shall be made on the basis of percentages of value of goods and/or service which the bidder has failed to supply or complete as in the Bid Document:

- a) Fraction of a day in reckoning period of delay in supplies, successful installation and completion of work shall be eliminated, if it is less than half a day.
- b) Compensation for delay of work @ 2% per month of delay to be computed on per day basis.
- c) The maximum amount of liquidated damages shall be 10% for the unfinished work.
- d) The percentage refers to the payment due for the associated unfinished work.
- e) The LD shall be levied if delay is attributable to the Bidder only.

3.43 Limitation of Liability

Except in cases of gross negligence or willful misconduct:

- a) Neither party shall be liable to the other party for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the bidder to pay liquidated damages to the KSCL.

- b) The aggregate liability of the Bidder/selected bidder to the KSCL, whether under the Contract, in tort, or otherwise, shall not exceed the amount specified in the Contract, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the bidder to indemnify the KSCL with respect to patent infringement.

3.44 Change in Laws & 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 in Uttar Pradesh/ India, where the Site is located (which shall be deemed to include any change in interpretation or application by the competent authorities) 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 Bidder has thereby been affected in the performance of any of its obligations under the Contract. Notwithstanding the foregoing, such additional or reduced cost shall not be separately paid or credited, if the same has already been accounted for in the price adjustment provisions where applicable.

3.44.1 Termination for Default

The tender sanctioning authority of Kanpur Smart City Limited may, without prejudice to any other remedy for breach of contract, by a written notice of default of at least 30 days sent to the bidder, terminate the contract in whole or in part:

- If the bidder fails to deliver any or all quantities of the service within the time period specified in the contract, or any extension thereof granted by Kanpur Smart City Limited; or
- If the bidder fails to perform any other obligation under the contract within the specified period of delivery of service or any extension granted thereof; or
- If the bidder, in the judgement of the KSCL, is found to be engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the contract.
- If the bidder commits breach of any condition of the contract. If Kanpur Smart City Limited terminates the contract in whole or in part, full amount of Performance Guarantee shall stand forfeited. Before cancelling a contract and taking further action, advice of senior most finance person available in the office and of legal adviser or legal assistant posted in the office, if there is one, may be obtained.

3.44.2 Termination for Insolvency

Kanpur Smart City Limited may at any time terminate the Contract by giving a written notice of at least 30 days to the bidder, if the bidder becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Bidder /selected bidder, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to Kanpur Smart City Limited.

3.44.3 Termination for Convenience

Kanpur Smart City Limited, by a written notice of at least 30 days sent to the bidder, may terminate the Contract, in whole or in part, at any time for its convenience. The Notice of termination shall specify that termination is for the KSCL's convenience, the extent to which performance of the bidder under the Contract is terminated, and the date upon which such termination becomes effective.

Depending on merits of the case the bidder may be appropriately compensated on mutually agreed terms for the loss incurred by the contract if any due to such termination.

The Goods that are complete and ready for shipment within thirty (30) days after the Bidder's/ selected bidder's receipt of the Notice of termination shall be accepted by the KSCL at the contract terms and prices. For the remaining Goods, the KSCL may elect:

- a) To have any portion completed and delivered at the Contract terms and prices; and/or
- b) To cancel the remainder and pay to the bidder an agreed amount for partially completed Goods and Related Services and for materials and parts previously procured by the bidder.

3.45 Settlement of Disputes

All disputes or differences arising out of or in connection with the contract shall be settled by amicable bilateral discussions. Any dispute, disagreement or question arising out of or relating to the contract or relating to construction or performance, which cannot be settled amicably, may be resolved through Arbitration.

Section-IV

Annexures

Annexure 1 Guidelines for Pre-Qualification Proposal

Annexure 1.1 Check-list for the Pre-Qualification Proposal

S No.	List of Documents	File Name	Submitted (Y / N)	Description
1	Proof of Tender Fee and EMD submitted			
2	Bid Covering Letter As per format provided at Annexure 1.2			Reference No: Date of Letter:
3	Bidders' Particulars As per format provided at Annexure 1.3			Name of Bidder(s):
4	Power of Attorney in favour of Authorized Signatory As per format provided at Annexure 6			Date of PoA: Name of Authorized Person:
5	Copy of Certificate of Incorporation / Registration under Companies Act, 1956/2013 or corresponding Act in abroad			Registration Number: Date of Incorporation:
6	Copy of Certificate from the Statutory Auditor for the last 3 (Three) financial years 2015-16, 2016-17 and 2017-18			Year-wise details of turnover
7	Valid copy of the ISO 9001:2008 or higher certification			Valid upto:
8	Declaration for not blacklisted by Central/State Government/ PSU entity in India or similar agencies globally for unsatisfactory past performance, corrupt, fraudulent or any other unethical business practices as on date of submission of the proposal. As per format provided at in Annexure-4			Reference No: Date of Letter:

Annexure 1.2 Pre-Qualification Cover Letter

(To be submitted on the letterhead of the bidder)

Date:

To

Chief Executive Officer

Kanpur Smart City Limited,

3rd Floor, Nagar Nigam Mukhayalay,

Moti Jheel, Kanpur-280002

Subject: Bid for Setting up Smart Classrooms (E-Pathshala) in Various Schools under ABD Limit of Kanpur city.

Dear Sir,

With reference to your tender document for “Implementation of Smart Classrooms (E-Pathshala) in various under ABD Limit Schools in Kanpur City”, we hereby submit our Prequalification Proposal, Technical Proposal, and Financial Proposal, for the same.

We hereby declare that:

We hereby acknowledge and unconditionally accept that the Procuring entity can at its absolute discretion apply whatever criteria it deems appropriate, not just limiting to those criteria set out in the tender document and related documents, in short listing of bidder for providing services.

We have submitted EMD of INR [] in the form of [] and Tender fee of INR [] online through e-Tendering Portal <https://www.etender.up.nic.in>

- a) We hereby declare that all information and details furnished by us in the Bid are true and correct, and all documents accompanying such application are true copies of their respective originals.
- b) We agree to abide by our offer for a period of 90 days from the date of opening of pre-qualification bid prescribed by Procuring entity and that we shall remain bound by a communication of acceptance within that time.
- c) We have carefully read and understood the terms and conditions of the tender document and the conditions of the contract applicable to the tender document. We do hereby undertake to provision as per these terms and conditions.
- d) In the event of acceptance of our bid, we do hereby undertake:
 - i. To supply the products and commence services as stipulated in the tender document.
 - ii. To undertake the project services for entire contract period from the date of signing of the contract as mentioned in the tender document.

- iii. We affirm that the prices quoted are inclusive of design, development, delivery, installation, commissioning, training, providing facility management and handholding support, and inclusive of all out of pocket expenses, taxes, levies discounted etc.
- e. We do hereby undertake, that, until a formal contract is prepared and executed, this bid, together with your written acceptance thereof and notification of award of contract, shall constitute a binding contract between us.
- f. We understand that the Procuring entity may cancel the bidding process at any time and that Procuring entity is not bound to accept any bid that it may receive without incurring any liability towards the bidder.
- g. We fully understand and agree to comply that on verification, if any of the information provided in our bid is found to be misleading the selection process, we are liable to be dismissed from the selection process or termination of the contract during the project, if selected to do so

Yours sincerely,

(Signature of the Authorised signatory)

Name:

Designation:

Date:

Place:

Annexure 1.3 Format to share Bidder's and Bidding Firms Particulars

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

S. No.	Information	Details
1	Name of Bidding firm:	
2	Address and contact details of Bidding firm:	
3	Firm Registration Number and Year of Registration	
4	Website Address	
5	Status of Company (Public Ltd., Pvt. Ltd., etc.)	
6	Company's Service Tax Registration No.	
7	Company's Permanent Account Number (PAN)	
8	Company's Revenue 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 tender document:	
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 1.4 Format to Project Citation

S. No.	Items	Details	Attachment Ref. Number
1	Name of the Project		
2	Date of Work Order		
3	Client Details		
4	Scope of Work		
5	Contract Value		
6	Completion Date		

Note: The Bidder is required to use above formats for all the projects referenced by the bidder for the Pre-Qualification criteria and technical bid evaluation.

Annexure 1.5 Consortium Agreement

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] [Year] at [Place] among (hereinafter referred to as """) and having office at [Address], India, as Party of the First Part and (hereinafter referred 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 KSCL, has issued a Request for Proposal vide No. _____ dated [Date] to the interested bidder for Setting up Smart Class Rooms in Various Schools in Kanpur City:

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

AS 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 “tender document for Implementation of Smart Classrooms (E-Pathshala) in various Schools in Kanpur City” as a Consortium.
 - b. Sign Contract in case of award.
 - c. Provide and perform the supplies and services which would be ordered by the procuring entity 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 Procuring entity for “tender document for Implementation of Smart Classrooms (E-Pathshala) in various under Schools in Kanpur City” 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 Procuring entity for the performance of the works in accordance with the terms and conditions of the tender 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 Procuring entity.

- 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 Procuring entity and the Parties to execute/sign the Contract.
- e) That the Parties shall carry out all responsibilities as Developer in terms of the Project Agreement.
- v. That the broad roles and the responsibilities of each Party at each stage of the Bidding shall be as below:

Party A: _____

Party B: _____

- vi. That the Parties affirm that they shall implement the Project in good faith and shall take all necessary steps to see the Project through expeditiously.
- vii. That this MoU shall be governed in accordance with the laws of India and the Courts in Uttar Pradesh 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)

Witnesses:

- 1.
- 2.

Annexure 2 Guidelines for Technical Proposal

Annexure 2.1 Check-list for the documents to be included in the Technical Proposal

S No.	List of Documents	File Name	Submitted (Y / N)	Description
1	Technical Bid Covering Letter			Reference No: Date of Letter:
2	Technical Compliance Matrix			
3	Project Implementation Approach			
4	Copy of Work order to support that the Sole Bidder or Lead Member or any member of its consortium should have successfully executed smart classroom in school in last 3 (Three) financial years (FY2015-16, 2016-17 and 2017-18).			Customer Name: Work Order Number: Date of Work Order: Project Value: Completion Date:
5	Copy of Work order to support that the Sole Bidder or Lead Member or any member of its consortium should have successfully executed Smart Classrooms in Schools in Kanpur last 3 (Three) financial years (FY 2015-16, 2016-17 and 2017-18).			Customer Name: Work Order Number: Date of Work Order: Project Value: Completion Date:
6	Copy of Work order to support that the Sole Bidder or Lead Member or any member of its consortium should have successfully delivered Smart Classrooms projects in last 3 (Three) financial years (FY 2015-16, 2016-17 and 2017-18).			
7	OEM Authorization Form			OEM Name: Date:

Annexure 2.2 Technical Bid Cover Letter

(To be submitted on the letterhead of the bidder)

Date:

To

Chief Executive Officer

Kanpur Smart City Limited,

3rd Floor, Nagar Nigam Mukhayalay,

Moti Jheel, Kanpur-280002

Subject: Bid for Setting up Smart Classrooms (E-Pathshala) in Various Schools under ABD Limit of Kanpur city.

Dear Sir,

Having examined the tender document, the receipt of which is hereby duly acknowledged, we the undersigned, offer to provide the professional services as required and outlined in the tender document for “Setting up Smart Classrooms (E-Pathshala) in Various Schools under ABD Limit of Kanpur city” We attach hereto the technical response as required by the tender document, which constitutes our proposal. We undertake, if our proposal is accepted, to adhere to the implementation plan (Project schedule) for providing Professional Services in “Setting up Smart Classrooms (E-Pathshala) in Various Schools under ABD Limit of Kanpur city”, put forward in tender document or such adjusted plan as may subsequently be mutually agreed between us and KSCL or its appointed representatives. If our proposal is accepted, we will obtain a Performance Bank Guarantee issued by a nationalized bank in India, for a sum of equivalent to 10% of the contract value for the due performance of the contract.

We agree for unconditional acceptance of all the terms and conditions set out in the tender document and also agree to abide by this tender response for a period of 180 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 KSCL.

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 KSCL 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 KSCL 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]

Annexure 2.3 Certificate as to Authorised Signatory

I _____, the Company Secretary of _____, certify that _____ who signed the above Bid is authorized to do so and bind the company by Procuring entity of it so board/governing body.

Date:

Signature:

(Company Seal)

(Name)

Annexure 2.4 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) CAMC Plan for 5 years including consumables
- e) Quality Control plan - Bidder's approach to ensure quality of work and deliverables
- f) Escalation matrix during contract period

Note:

- a. All the pages (documentary proofs and other documents that may be attached) should contain page numbers and would have to be uniquely serially numbered.

Inadequate information shall lead to disqualification of the bid.

Annexure 2.5 Format for OEM Authorization

(This form has to be provided by the OEMs of the products proposed)

Date:

To

Chief Executive Officer

Kanpur Smart City Limited,

3rd Floor, Nagar Nigam Mukhayalay,

Moti Jheel, Kanpur-280002

Sub: Manufacturer's Authorisation Form

Dear Sir,

We, (name and address of the manufacturer) who are established and reputed manufacturers of having factories at_____ (addresses of manufacturing/development locations) do hereby authorize M/s_____ (name and address of the bidder) to bid, negotiate and conclude the contract with you against the above-mentioned tender for the above equipment / software manufactured / developed by us.

We herewith certify that the above-mentioned equipment / software products are not end of the life and we hereby undertake to support this equipment / software for the duration of minimum 5 years from the date of Submission of the Bid.

Yours faithfully,

(Name)

(Name of Manufacturer)

Note: This letter of Procuring entity should be on the letterhead of the manufacturer and should be signed by a person competent and having the power of attorney to bind the manufacturer. The Bidder in its Bid should include it.

Annexure 3 Format for Declaration by the bidder for not being Blacklisted / Debarred

(To be submitted on the Letterhead of the Bidder)

Date:

To

Chief Executive Officer

Kanpur Smart City Limited,

3rd Floor, Nagar Nigam Mukhyalay,

Moti Jheel, Kanpur-280002

Subject: Declaration for not being debarred / black-listed by Central / any State Government department in India as on the date of submission of the bid

Dear Sir,

I, authorized representative of _____, hereby solemnly confirm that the Company _____ is not debarred / black-listed by any Central/State Government/ PSU entity 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, KSCL 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 4 Format of sending pre-bid queries

Tender Document Reference No: XX

Bidder's Request for Clarification				
Name and complete official address of Organization submitting query / request for clarification		Telephone, Fax and E-mail of the organization Tel: Fax: Email:		
S. No.	RFP Section & Sub-Section/Clause No.	RFP Page No.	Content of RFP Requiring Clarification	Clarification Sought (highlight the portion with RED color which is intended to be changed)
1				
2				

Signature:

Name of the Authorized signatory:

Company seal:

Date and Stamped

Note:

Bidder(s) are requested to send the queries in PDF with Sign and Company Seal and also in MS Excel for making consolidation process easy.

Annexure 5.1 Power of Attorney

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

Know by all men by these presents, we (Name of the Bidder and address of their registered office) do hereby constitute, appoint and authorize (name and residential address of Power of attorney holder) who is presently employed with us and holding the position of (designation) as our Attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our Proposal for the “Supply, Installation, Testing and Commissioning of Smart Classrooms (E-Pathshala) for Schools in ABD area including 5 years Comprehensive Annual Maintenance Contract (CAMC)”, including signing and submission of all documents and providing information / responses to the KSCL, representing us in all matters before KSCL, and generally dealing with the KSCL in all matters in connection with our Proposal 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

Name:

Designation:

Date:

Time: Seal:

Business Address:

Accepted,

(Signature) (Name, Title and Address of the Attorney)

Note:

- The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executants(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.
- The Power of Attorney should be supported by a duly authorized resolution of the Board of Directors of the Bidder authorizing the person who is issuing this power of attorney on behalf of the Bidder.

Annexure 5.2 Power of Attorney

Power of Attorney for Lead Member by Consortium Member

KSCL has invited Bids from interested companies for “tender document for Setting up Smart Classrooms (E-Pathshala) in Various Schools under ABD Limit of Kanpur city ("Project"). Whereas, _____, and _____ (collectively the "Consortium") being members of the Consortium are interested in offering for the services in accordance with the terms and conditions of the Request for Proposal document (tender document) and other connected documents in respect of the Project, and; Whereas, it is necessary under the tender document for the members of the Consortium to designate one of them as the Lead Member with all necessary power and Procuring entity to do for and on behalf of the Consortium, all acts, deeds and things as may be necessary in connection with the Consortium's Bid for the Project.

Whereas, we have decided that M/s shall be Lead Member of this Consortium.
NOW THEREFORE KNOW ALL MEN BY THESE PRESENTS

We, ----- having our registered office at, (hereinafter referred to as the "Member") do hereby designate, nominate, constitute, appoint and authorize ----- having its registered office at, being one of the members of the Consortium, as the Lead Member and true and lawful attorney of the Consortium (hereinafter referred to as the ("Attorney"). We hereby irrevocably authorize the Attorney (with power to sub-delegate) to conduct all business for and on behalf the Consortium and any one of us during the Bid process and, in the event the Consortium is awarded the Contract, during the execution of the project, and in this regard, to do on our behalf and on behalf of the Consortium, all or any of such acts, deeds or things as are necessary or required or incidental to the selection of the Consortium, including but not limited to signing and submission of all Applications, Proposals and other Documents and writings, participate in pre-proposal and other conferences, respond to queries, submit information/ documents, sign and execute contracts and undertakings consequent to acceptance of Bid of the Consortium and generally to represent the Consortium in all its dealings with the KSCL and/or any other Government Agency or any person, in all matters in connection with or relating to or arising out of the Consortium's Bid for the above Project and/or upon award thereof till the Contract Agreement is entered into with the KSCL.

AND hereby agree to ratify and confirm and do hereby ratify and confirm all acts, deeds and things lawfully done or caused to be done by our said Attorney pursuant to and in exercise of the powers conferred by this Power of Attorney and that all acts, deeds and things done by

our said Attorney in exercise of the powers hereby conferred shall and shall always be deemed to have been done by us/Consortium.

IN WITNESS WHEREOF WE THE MEMBER ABOVE NAMED HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS DAY OF _____ 2018 for _____

(Name & Title)

Witnesses:

1. _____

2. _____

(To be executed by the Member of the Consortium)

Note:

- The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executants(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.
- Also, wherever required, the Bidder 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 6 Format for Bank Guarantee for Earnest Money Deposit

To

Chief Executive Officer

Kanpur Smart City Limited,

3rd Floor, Nagar Nigam Mukhayalay,

Moti Jheel, Kanpur-280002

Dear Sir,

Whereas <<Name of the bidder>> (hereinafter called 'the System Integrator') has submitted the bid for Submission of tender document <<tender document Number>> dated <<Date>> for Request for Proposal for Setting up Smart Classrooms (E-Pathshala) in Various Schools under ABD Limit of Kanpur city " (hereinafter called "the Bid") to KSCL, Kanpur. Know all Men by these presents that we <<..... >> having our office at <<Address>> (here in after called "the Bank") are bound unto the <<Procuring entity>> (here in after called "the Procuring entity") in the sum of Rs. <<Amount in figures>> (Rupees<<Amount in words>>only) for which payment well and truly to be made to the said Procuring entity, the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank this <<Date>>.

The conditions of this obligation are:

1. If the Bidder having its bid withdrawn during the period of bid validity specified by the Bidder on the Bid Form; or
2. If the Bidder, having been notified of the acceptance of its bid by the Procuring entity during the period of validity of bid
 - (a) With draws his participation from the bid during the period of validity of bid document; or
 - (b) Fails or refuses to participate in the subsequent Tender process after having been short listed;

We undertake to pay to the Procuring entity up to the above amount upon receipt of its first written demand, without the Procuring entity having to substantiate its demand, provided that in its demand the Procuring entity will note that the amount claimed by it is due to it owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions. This guarantee will remain inforce upto <<insert date>> and including <<extra time over and above mandated in the tender document>> from the last date of submission and any demand in respect thereof should reach the Bank not later than the above date. NOT WITH STANDING ANY THING CONTAINED HEREIN:

- I. Our liability under this Bank Guarantee shall not exceed Rs. <<Amount in figures>> (Rupees<<Amount in words>> only)
- II. This Bank Guarantee shall be valid up to <<insert date>>)
- III. It is condition of our liability for payment of the guaranteed amount or any part thereof arising under this Bank Guarantee that we receive a valid written claim or demand for payment under this Bank Guarantee on or before<<insert date>>) failing which our liability under the guarantee will automatically cease.

(Authorized Signatory of the Bank)

Seal:

Date:

Annexure 7 Format for Performance Bank Guarantee

Form of Performance Bank Guarantee

[Bank's Name, and Address of Issuing Branch or Office]

Beneficiary: [Name and Address of Procuring Entity]

(Chief Executive Officer, Kanpur Smart City Limited, Kanpur)

Date:

Performance Guarantee No.:.....We have been informed that **[Name of the Contractor]** hereinafter called "the Contractor"(has entered into Contract No **[Reference number of the Contract]**) dated.....with you, for the execution of **[Name of contract and brief description of Works]**)Hereinafter called "the Contract" Furthermore, we understand that, according to the conditions of the Contract, a performance security is required.

At the request of the Contractor, we **[name of the Bank]** hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of Rupees* . . . **[Amount in figures]**) Rupees.....**[amount in words]** such sum being payable upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation)s(under the Contract, without your needing to prove or to show grounds for your demand or the sum specified therein.

The Guarantor agrees to extend this guarantee for a specified period in response to the Procuring Entity's written request for such extension for that specified period, provided that such request is presented to the Guarantor before the expiry of the guarantee.

This guarantee shall expire, no later than the.....Day of . . . , **, and any demand for payment under it must be received by us at this office on or before that date.

Seal of Bank and Authorised Signature (S)

* The Guarantor shall insert an amount representing the percentage of the Contract Price specified in the Contract

** Insert the date sixty days after the expected completion date, including defect liability period and maintenance period, if any.

Notes:

1. All italicized text is for guidance on how to prepare this advance payment guarantee and shall be deleted from the final document.
2. The Procuring Entity should note that in the event of an extension of the time for completion of the Contract, the Procuring Entity would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee.

Annexure 8 Certificate of Giving Unlimited licensing Rights

Date:

To

Chief Executive Officer

Kanpur Smart City Limited,

3rd Floor, Nagar Nigam Mukhyalay,

Moti Jheel, Kanpur-280002

We_____do

hereby confirm that in case of the contract being awarded to us, we are ready to give unlimited licensing rights to the Procuring entity for using the software in the government schools in Kanpur as per their requirement. However, we will not be able to support in terms of updates and services.

We assure that the unlimited use of licensing rights of the software solution will be transferred to the Procuring entity.

Name of the Bidder: -

Signature: -

Seal of the Organization:-

Annexure 9 Compliance with the Code of integrity and No Conflict of interest

Any person participating in a procurement process shall –

- a. Not offer any bribe reward or gift or any material benefit either directly or indirectly in exchange for an unfair advantage in procurement process or otherwise influence the procurement process;
- b. Not misrepresent or omit that misleads or attempts to mislead so as to obtain a financial or other benefit or avoid an obligation;
- c. Not indulge in any collusion, bid rigging or anti-competitive behaviour to impair the transparency, fairness and progress of the procurement process;
- d. Not misuse any information shared between the procuring entity and the Bidders with an intent to gain unfair advantage in the procurement process;
- e. Not indulge in any coercion including impairing or harming or threatening to do the same, directly or indirectly, to any party or to its property to influence the procurement process;
- f. Not obstruct any investigation or audit of a procurement process;
- g. Disclose conflict of interest, if any; and
- h. Disclose any previous transgressions with any entity in India or any other country during the last three years or any debarment by any other procuring entity.

Conflict of interest:-

The Bidder participating in a bidding process must not have a conflict of interest. A Conflict of interest is considered to be a situation in which a party has Interests that could improperly influence that party's performance of official duties or responsibilities, contractual obligations, or compliance with palpable laws and regulations.

A Bidder may be considered to be in conflict of interest with one or more parties in a bidding process if, including but not limited to:

- a) Have controlling partners/shareholders in common; or
- b) Receive or have received any direct or indirect subsidy from any of them; or
- c) Have the same legal representative for purposes of the Bid; or
- d) Have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the Bid of another Bidder, or influence the decisions of the procuring entity regarding the bidding process; or
- e) The Bidder participates in more than one Bid in a bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all Bids in which the Bidder is involved. However, this does not limit the inclusion of the same subcontractor, not otherwise participating as a Bidder in more than one Bid; or
- f) The Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the Goods, works or services that are the subject of the Bid; or
- g) The Bidder or any of its affiliates has been hired (or is proposed to be hired) by the procuring entity as engineer-in-charge/consultant for the contract.

Signature of Tenderer with seal

Annexure 10 Declaration by the Bidder regarding Qualifications

Declaration by the Bidder

In relation to my/our Bid submitted to ----- for procurement of -----
in response to their Notice inviting Bids No. ----- Dated -----

-I/we hereby declare under Uttar Pradesh Transparency in public procuring Act, that:

1. I/we possess the necessary professional, technical, financial and managerial resources and competence required by the Bidding Document issued by the procuring entity;
2. I/we have fulfilled my/our obligation to pay such of the taxes payable to the Union and the state Government or any local authority as specified in the Bidding Document;
3. I/we are not insolvent, in receiver shop, bankrupt or being wound up, not have my/our affairs administered by a court or a judicial officer, not have my/our business activities suspended and not the subject of legal proceedings for any of the foregoing reasons;
4. I/we do not have, and our directors and officers not have, been convicted of any criminal offence related to my/our professional conduct or the making of false statements or misrepresentations as to my/our qualifications to enter into a procurement contract within a period of three years preceding the commencement of this procurement process, or not have been otherwise disqualified pursuant to debarment proceedings;
5. I/we do not have a conflict of interest as specified in the Act, Rules and the Bidding Document, which materially affects fair competition:

Date:

Signature of bidder

Place:

Name:

Designation:

Address:

Signature of Tenderer with Seal

Annexure 11 Additional Conditions of Contract

1. Correction of arithmetical errors Provided that a financial Bid is substantially responsive, the procuring entity will correct arithmetical errors during evaluation of Financial Bids on the following basis:

- I. If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of procuring entity there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall governs and the unit price shall be corrected:
- II. If there is an error in a total corresponding to the addition or subtraction of subtotals the sub totals shall prevail and the total shall be corrected:
- III. If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (i) and (ii) above.

If the Bidder that submitted the lowest evaluated Bid does not accept the correction of errors, its Bid shall be disqualified and its Bid security shall be forfeited or its Bid Securing Declaration shall be executed.

2. Procuring entity's Right to vary Quantities

- I. At the time of award of contract, the quantity of Goods, works or services originally specified in the Bidding Document may be increased or decreased by a specified percentage, but such increase or decrease shall not exceed twenty percent, of the quantity specified in the Bidding Document. It shall be without any change in the unit prices. Or other terms and conditions of the Bid and the conditions of contract.
- II. If the procuring entity does not procure any subject matter of procurement or procures less than the quantity specified in the Bidding Document due to change in circumstances, the Bidder shall not be entitled for any claim or compensation except otherwise provided in the conditions of contract.
- III. In case of procurement of Goods or services, additional quantity may be procured by placing a repeat order on the rates and conditions of the original order. However, the additional quantity shall not be more than 15 % of the value of Goods of the original contract and shall be. Within one month from the date of expiry of last supply. If the supplier fails to do so, the procuring entity shall be free to arrange for the balance supply by limited Bidding or other wise and the extra cost incurred shall be recovered from the supplier.