



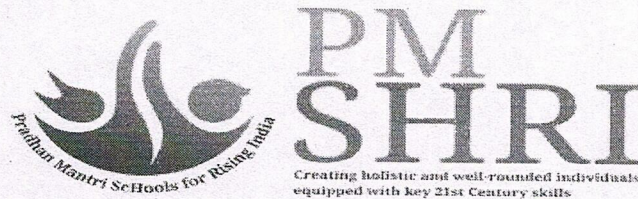
Request for Proposal (RFP)

For

**Engagement of Implementation Partner for Education Quality Enhancement in
Selected Government Schools Across Bihar under PM SHRI**

(Through <https://gem.gov.in>)

Bihar Education Project Council
2nd/3rd Floor, Shiksha Bhawan,
Bihar Rashtrabhasha Parishad Campus,
Saidpur, Rajendra Nagar, Patna - 800 004 (Bihar)



20

TABLE OF CONTENTS

Schedule of Bid Process	5
1. Request for Proposal	6
2. Background Information	6
3. Instructions to Bidders	7
4. Criteria for Evaluation	17
5. Scope of Work	23
6. Payment Schedule and Penalty	24
7. Dispute Resolution	26
8. Termination & Blacklisting	27
Annexure 1: Technical Specifications	31
Annexure 2: Letter of Submission	32
Annexure 3: List of Similar Work	33
Annexure 4: Financial Bid Format	34
Annexure 5: Format for EMD	37
Annexure 6: PBG Format	38
Annexure 7: Power of Attorney	40
Annexure 8: Declaration by Bidder	41
Annexure 9: Contract/Agreement Form	42
Annexure 1A: Scope of Work	1-25
Annexure 1B: Detailed Technical Specification	1-154

10

DISCLAIMER

1. While this Request for Proposal document ("RFP") has been prepared in good faith, neither Bihar Education Project Council (BEPC), GoB nor its employees or advisors 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, 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 by any act or omission on their part.
2. This document is not transferable, and this RFP does not purport to contain all the information that each Bidder may require and accordingly it is not intended to form the basis of any investment decision or any other decision to participate in the bidding process for the selection of the Successful Bidder for this Project. Each Bidder should conduct their own investigations and analysis and check the accuracy, reliability, and completeness of the information in this document and obtain independent advice from appropriate sources
3. Though adequate care has been taken while preparing this Bid Document, the Bidder shall satisfy themselves that the document is complete in all respects. Intimation of any discrepancy shall be given to this office immediately.
4. BEPC, GoB may modify, amend, reject or supplement this RFP document in accordance with norms and procedures and as per the requirement of the project. BEPC, GoB reserves the right to waive any irregularity in the proposal (RFP) and the BEPC, GoB makes it clear that the RFP is not an offer/ Agreement.
5. Neither the BEPC, GoB nor its employees shall be liable to any Bidder or any other person under any law including the law of Agreement, tort, the principles of restitution or unjust enrichment or otherwise for any loss, expense or damage which may arise, or be incurred, or suffered, in connection with this RFP document, or any matter that may be deemed to form part of this RFP document, or the award of the Agreement, or any other information supplied by the BEPC, GoB or their employees or consultants or otherwise arising in any way from the selection process for the award of the Agreement for the Project.
6. BEPC, GoB is not bound to accept any or all the Proposals. BEPC, GoB reserves the right to reject any or all Proposals without assigning any reasons. No Bidder shall have any cause for action or claim against the BEPC, GoB or its officers, employees, successors, or assignees for rejection of their bid. The RFP submitted by the bidder will be the property of the BEPC, GoB.

GLOSSARY

Abbreviation/ Terms	Details
Authorized Signatory	The bidder's representative / officer vested (explicitly, implicitly, or through conduct) with the powers to commit the authorizing organization to a binding agreement. Also called signing officer/ authority having the Power of Attorney (PoA) from the competent authority of the respective Bidding firm.
BEPC	Bihar Education Project Council (BEPC),
Bid	A formal offer made in pursuance of an invitation by a procuring entity and includes any tender, proposal or quotation in electronic format
Bid Security/ Earnest Money Deposit (EMD)	A security provided to the procuring entity by a bidder for securing the fulfilment of any obligation in terms of the provisions of the bidding documents.
Bidder	Any person/ firm/ Agency/ company/ contractor/ vendor participating in the bidding process with the procurement entity
Bidding Document	Documents issued by the procuring entity, including any amendments thereof, that set out the terms and conditions of the given procurement and includes the invitation to bid
Competent Authority	An authority or officer to whom the relevant administrative or financial powers have been delegated for taking decision in a matter relating to procurement. State Project Director, BEPC, Department of Education, GoB shall be the Competent Authority in this bidding document.
Contract	"Contract" means a legally enforceable agreement entered into between the Procuring entity and the selected bidder(s) with mutual obligations.
LD	Liquidated Damages
LoA	Letter of Acceptance
LoI	Letter of Intent
PAN	Permanent Account Number
PQ	Pre-Qualification
Procurement Process	The process of procurement extending from the issue of invitation to Bid till the award of the procurement contract or cancellation of the procurement process, as the case may be
Purchaser/ Tendering Authority/ Procuring Entity	Person or entity that is a recipient of a goods or service provided by a seller (bidder) under a purchase order or contract of sale, also called buyer. BEPC, GoB in this BID document.
Services	Any subject matter of procurement other than goods or works and includes physical, maintenance, professional, intellectual, consultancy and advisory services or any service classified or declared as such by a procuring entity
Service Level Agreement (SLA)	Service Level Agreement is a negotiated agreement between two parties wherein one is the customer and the other is the service provider. It is a service contract where the level of service is formally defined. In practice, the term SLA is sometimes used to refer to the contracted delivery time (of the service) or performance.
State Government	Government of Bihar (GoB)
GST	Goods and Service Tax
WO/ PO	Work Order/ Purchase Order

SCHEDULE OF BID PROCESS

SL	Information	Details
1	RFP Issuing Authority	State Project Director, Bihar Education Project Council (BEPC)
2	RFP No. and Date of availability	RFP Reference No. BEPC/PMSHRI/ 2025-26/... 431 ..., Dated 20 .../01/2026. Available for download from 20 /1/ 2026, 05:00 PM onwards till ... 10 .../02/2026, 4:00 PM on https://gem.gov.in
3	Last date for submission of written queries for clarifications	28 .../01/2026, 01:00 pm Email: etenderbepc@gmail.com
4	Date of pre-bid conference	28 .../01/2026, 2:30 pm at through online mode Google Meet joining info Video call link: https://meet.google.com/tnt-yoe-kzs e-mail: etenderbepc@gmail.com
5	Release of response to clarifications	30 .../01/2026, 5:00 PM
6	Last date of submission of bid i.e. Proposal Due Date	10 .../02/2026, 4:00 PM
7	Last date of submission of Hard copy of BG at BEPC	10 .../02/2026, 4:00 PM
8	Opening of Technical Bids	10 .../02/2026, 4:30 PM
9	Opening of Financial Bids	To be intimated
10	Contact person for queries	The Administrative Officer, Bihar Education Project Council, Shiksha Bhawan, Bihar Rashtra Bhasha Parishad Campus, Saidpur - 800 004. e-mail: etenderbepc@gmail.com

Note: BEPC reserves the right to amend documents for RFP, schedules, and critical dates. It is sole responsibility of bidder to check <https://gem.gov.in> from time to time for any updated information. No communication in writing or through e-email or any other mode will be sent by BEPC in this regard. BEPC also reserves the right to cancel the whole tender process at any time during the bid process without assigning any reason thereof.

1. REQUEST FOR PROPOSAL

State Project Director, Bihar Education Project Council (BEPC), Patna invites Request for Proposal (RFP) for Engagement of Implementation Partner for Education Quality Enhancement in Selected Government Schools Across Bihar under PM SHRI from interested agencies. The bids comprising mandatory compliance along with technical bids and price bids shall be submitted on <https://gem.gov.in> website. The Scope of Services forming part of the assignment has been set out hereunder in this document. The Proposals would be evaluated on the basis of the evaluation criteria set out in this RFP (“Evaluation Criteria”) to identify the successful Bidder for the Assignment (“Successful Bidder”)

1.1 STRUCTURE OF THE RFP

BEPC, GoB intends to follow a ‘two stage’ bid process for selection of the successful Agency under LCS (Least Cost Based Selection Method)’, as outlined in this RFP.

The Bidders would need to submit Pre-Qualification, Technical and Financial Proposal in the prescribed formats, within the Proposal Due Date as prescribed in this RFP. BEPC, GoB would evaluate all the Submissions in accordance with the evaluation criteria set out in the RFP to select a qualified bidder.

1.2 OBTAINABILITY OF RFP DOCUMENT

RFP document can be downloaded from the website <https://gem.gov.in>

2. BACKGROUND INFORMATION

The Bihar Education Project Council (BEPC), an autonomous body under the Education Department, Government of Bihar, has been entrusted with the implementation of *Samagra Shiksha & PM SHRI*—a holistic and integrated school education programme aligned with the vision of the National Education Policy (NEP) 2020.

BEPC now aims to develop 789 secondary/senior secondary schools under PM-SHRI scheme to equipped with high-quality infrastructure, modern pedagogical approaches, and technology-enabled solutions through Engaging Implementation Partner. These schools are envisioned to

deliver inclusive and holistic education while fostering innovation, sustainability, and critical thinking among students. They will serve as benchmarks for educational excellence across the state.

In line with these objectives, the selected agency will be responsible for implementing the transformation of identified schools as per BEPC's directives. The agency shall focus on enhancing the physical, academic and digital environments of the schools through modern infrastructure development, the adoption of innovative teaching-learning methodologies and the integration of appropriate technology. The execution of this mandate will require strict adherence to project timelines, compliance with statutory requirements, and transparency in all operational processes. Continuous monitoring, capacity building of school staff, and robust post-implementation support will be essential to ensure long-term sustainability and impact.

3. INSTRUCTIONS TO BIDDERS

3.1 SUBMISSION PROCEDURE

- a) The bidders should submit their responses as per the format given in this RFP in the following manner: Technical Proposal and Financial Proposal
- b) Please Note that prices should not be indicated in the Technical Proposal but should only be indicated in the Financial Proposal. Financial bid format is available on <https://gem.gov.in> and has to be submitted online through the GeM portal only. Submission of Technical Proposal and Financial Proposal except the original copy of BG/DD (in case of EMD) in hard copy will lead to rejection of the submitted bid.
- c) All the pages of the proposal must be sequentially numbered and must contain the list of contents with page numbers. Any deficiency in the documentation may result in the rejection of the Bid.
- d) The bids shall be uploaded through <https://gem.gov.in> as per the instructions available on the website.

3.2 NUMBER OF PROPOSALS

Each Bidder must submit only one (1) Proposal, in response to this RFP. Any Bidder who submits or participates in more than one Proposal shall be disqualified.

3.3 PROPOSAL PREPARATION COST

- a) The bidder shall be responsible for all costs incurred in connection with participation in the RFP process, including costs incurred in conduct of informative and other diligence activities, participation in meetings/discussions/presentations, preparation of proposal, in providing any additional information required by the BEPC to facilitate the evaluation process, and in negotiating a definitive contract or all such activities related to the bid process.
- b) The BEPC will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

3.4 RIGHT TO ACCEPT OR REJECT

- a) The BEPC, GoB may reject a proposal at any stage if it is found that the firm recommended for award has indulged in corrupt or fraudulent activities in competing for the contract in question, and may also declare a firm ineligible or blacklist the firm, either indefinitely or for a stated period of time, if at any time it is found that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing the contract.
- b) Notwithstanding anything contained in this RFP, the BEPC, GoB reserves the right to accept or reject any Proposal and to annul the bidding process and reject all Proposals at any time, without any liability or any obligation for such acceptance, rejection or annulment, without assigning any reasons.
- c) BEPC GoB reserves the right to reject any Proposal if, at any time, a material misrepresentation made by a Bidder at any stage of the bidding process is discovered.

3.5 SUBCONTRACTING

Subcontracting is not allowed in any form of this bid. Subcontracting includes the following:

- Assignment or transfer the work to any third party.

- Any arrangement where a third party directly invoices or bills to the BEPC.
- Any arrangement allowing a third party to communicate, negotiate, or contract directly with the BEPC.
- Any arrangement where a third party acts as or represents itself as the contractor for this bid.

The Successful bidder shall remain fully responsible and accountable to the BEPC for all obligations, deliverables, performance, quality, timelines, and compliance under this bid.

3.6 CLARIFICATIONS

A prospective Bidder requiring any clarification on the RFP must notify the BEPC, GoB in writing to The State Project Director, Bihar Education Project Council within such date as specified in RFP Time Schedule. At its sole discretion, BEPC, Department of Education, GoB will upload its response to such queries on the website <https://gem.gov.in>. Bidders requiring specific points of clarification may communicate with the BEPC, Department of Education, GoB during the specific period using the following format. The queries can be submitted by email at etenderbepec@gmail.com with name of assignment as the subject, in the following format:

Bidders Request for Clarification				
Name of Organization submitting request		Name and position of person submitting request	Details of person and organization	
			Address: Tel: E-mail: Mobile:	
S. No	Bidding Document Reference (Number//Page)	Content of RFP requiring Clarification	Points of Clarification Required	Suggestions (If Any)
1				
2				

3.7 AMENDMENTS TO RFP

At any time prior to the Proposal Due Date, as indicated in the RFP Time Schedule, BEPC, GoB may, for any reason, whether at its own initiative or in response to clarifications requested by a

bidder, amend the RFP by the issuance of Addenda. Such Addenda would be posted on the website <https://gem.gov.in>. In order to afford Bidders reasonable time to take the Addendum into account, or for any other reason, BEPC, GoB may, at its discretion, extend the Proposal Due Date.

3.8 LANGUAGE AND CURRENCY

The Proposal and all related correspondence and documents must be written in English language. Supporting documents and printed literature furnished by the Bidder with the Proposal may be in any other language if they are accompanied by an appropriate translation in English language. Supporting materials that are not translated into English shall not be considered. For the purpose of interpretation and evaluation of the Proposal, the English language translation shall prevail. The currency for this bid is Indian Rupee. All the quotes should be in Indian Rupees only.

3.9 VALIDITY OF PROPOSAL

- i. The Proposal must be valid for a period of not less than 180 days from the Proposal Due Date i.e. Last Date of Bid Submission. BEPC, Department of Education, GoB reserves the right to reject any Proposal that does not meet this requirement.
- ii. Prior to expiry of the Proposal Validity Period, BEPC, GoB may request the Bidders to extend the period of validity for a specified additional period.
- iii. The Successful Bidder shall, where required, extend the validity of the Proposal till the date of execution of the Agreement.

3.10 BID SECURITY

- i. Bidders shall submit, along with their Bids, EMD of INR 13,50,00,000/- (Rupees Thirteen crore fifty lakh) only through Online Payment or in the form of Bank Guarantee or Demand Draft issued by any Scheduled bank. EMD will be valid till 30.05.2026 (Bank Details: State Project Director - BEPC, A/c No. 245001000002776, IFSC Code - IOBA0002450)
- ii. The bid / proposal submitted without EMD, mentioned above, will be summarily

rejected.

iii. "Special Category of enterprises" means a Micro and Small Enterprises (MSEs) situated and operated in Bihar and acknowledged with Udyam Registration including Start-ups (as defined in Bihar Start-up Policy 2022 (as amended from time to time). Special Category of enterprises in Bihar shall be given preferential treatment as tender sets shall be made available free of cost and exemption from payment of earnest money deposit/bid security to Special Category of Enterprises.

iv. "Special Category of enterprises" as mentioned in "Bihar Purchase Preference Policy 2024" such as Micro, small and start up Enterprises situated and operated in Bihar and acknowledged with Udyam Registration for doing similar work are exempted from the payment of EMD, as per Government policy, subject to submission of valid document and registration certificate with the bid.

(a) Micro and Small Enterprises (MSEs) situated and operated in Bihar and acknowledged with Udyam Registration.

(b) Start-ups (as defined in Bihar Start-up Policy 2022 as amended from time to time).

Provided further that the special category of enterprises fulfil the following criteria: (i) Not declared ineligible under the extant policies of the State, (ii) Quality of goods and services produced is sufficiently good for the purpose.

v. The Bid Security shall be returned to the unsuccessful Bidders within a period of 15 Days from the date of issue of LoA between the BEPC, Department of Education, GoB and the Successful Bidder.

vi. The bid security of the successful bidder will be returned to the successful bidder on the submission of the Performance Security as specified in the RFP document.

vii. The Bid Security shall be forfeited in the following cases:

a. If the Bidder withdraws its Proposal;

- b. If the Bidder withdraws its Proposal during the interval between the Proposal Due Date and expiration of the Proposal Validity Period; and
- c. If any information or document furnished by the Bidder turns out to be misleading or untrue at any stage of Project in any material respect.
- d. If the bidder, after the award of work order, fails to submit the performance security within the stipulated time.
- e. If Bidder practices unethical practices, any engagement in corrupt, fraudulent, collusive, cartelization, coercive, or obstructive practices during the project stage

3.11 BIDDER'S RESPONSIBILITY

- i. The Bidder is expected to examine carefully the contents of all the documents provided. Failure to comply with the requirements of RFP shall be at the Bidder's own risk.
- ii. It shall be deemed that prior to the submission of Proposal, the Bidder has:
 - Made a complete and careful examination of terms & conditions/ requirements, and other information set forth in this RFP document.
 - Received all such relevant information as it has requested from the BEPC, GoB; and
 - Made a complete and careful examination of the various aspects of the Assignment.
- iii. BEPC, GoB shall not be liable for any mistake or error or neglect by the Bidder in respect of the above.
- iv. Bidder must understand whole RFP in line with BEPC, GoB requirement and providing the undertaking on execution the same unconditionally.
- v. All taxes payable to government must be paid by the service provider as per applicable norms and procedure. BEPC, GoB is nowhere liable and responsible for payment of such taxes. Only GST payment will be made by BEPC, GoB as per applicable rates on the fee quoted by the agency.

3.12 CORRESPONDENCE/ ENQUIRY

All correspondence/enquiries must be submitted to the following in writing by email/ fax/ registered post with **name of assignment** as the subject. The details are:

**The State Project Director,
Bihar Education Project Council,
Shiksha Bhawan, Bihar Rashtra Bhasha Parishad Campus,
Saidpur - 800 004. e-mail: etenderbepc@gmail.com**

3.13 FORMAT AND SIGNING OF PROPOSAL

- a) Bidders must provide all the information as per this RFP and in the specified format. BEPC, GoB reserves the right to reject any Proposal that is not in the specified format.
- b) The Proposal must include submissions to be made on the respective Proposal Due Date as set out in RFP Time Schedule or in Corrigendum/Addendums time to time.
- c) The designated/authorized person(s) signing the Proposal must initial all the alterations, omissions, additions, or any other amendments made to the Proposal.

3.14 MODIFICATION/SUBSTITUTION/WITHDRAWAL OF PROPOSAL

- a) The Bidder may modify, substitute, or withdraw its Proposal after submission, provided that a written notice of the modification, substitution or withdrawal is received by BEPC, GoB before the Proposal Due Date. No Proposal shall be modified, substituted, or withdrawn by the Bidder after the Proposal Due Date.
- b) The modification, substitution or withdrawal notice shall be prepared, sealed, marked and delivered in accordance with outer envelopes additionally marked "MODIFICATION", "SUBSTITUTION" or "WITHDRAWAL", as appropriate.
- c) Withdrawal of a Proposal during the interval between the Proposal Due Date and expiration of the Proposal Validity Period will result in forfeiture of the Bid Security in accordance with this RFP while Bidders who availed EMD relaxation in case of "Special

ref

Category of enterprises" as mentioned in "Bihar Purchase Preference Policy 2024" such as Micro, small and start up Enterprises situated and operated in Bihar and acknowledged with Udyam Registration for doing similar work, such "Special Category of enterprises" will be declared as blacklisted.

3.15 PROPOSAL DUE DATE

- a) Proposals must be submitted as per information provided in this RFP and advised to follow the corrigendum's / Addendum if any published time to time.
- b) BEPC, GoB at its sole discretion; accept any Proposal(s) after Proposal Due Date. Any such Proposal/s accepted shall be deemed to have been received by the Proposal Due Date.

3.16 TEST OF RESPONSIVENESS

Initial Bid scrutiny will be held, and incomplete details as given below will be treated as non-responsive, if Proposals:

- a) Are not submitted as specified in the RFP document.
 - b) Are found with suppression of details.
 - c) With incomplete information, undertakings, subjective, conditional offers and partial offers submitted.
 - d) Submitted without the all documents requested in the mentioned anywhere in RFP.
 - e) Have non-compliance with any of the clauses stipulated in the RFP.
 - f) With lesser validity period.
- All responsive Bids will be considered for further processing. The BEPC will prepare a list of responsive bidders, who comply with all the Terms and Conditions of the Tender. All eligible bids will be considered for further evaluation by a committee according to the Evaluation process defined in this RFP document. The

decision of the Committee will be final in this regard.

- BEPC, GoB reserves the right to seek clarification or reject any Proposal which in its opinion is non-responsive and no request for modification or withdrawal shall be entertained by BEPC, GoB in respect of such Proposal.

3.17 CONFIDENTIALITY

Information relating to the examination, clarification, evaluation and recommendation for the Qualified Bidders shall not be disclosed to any person not officially concerned with the process. The BEPC, GoB will treat all information submitted as part of the Proposal in confidence and will ensure that all those who have access to such material treat it in confidence. BEPC shall not divulge any such information unless ordered to do so by any statutory authority that has the power under law to require its disclosure.

3.18 CLARIFICATIONS

To assist in the process of evaluation of Proposals, BEPC, GoB may, at its sole discretion, ask any Bidder for clarification on its Proposal or substantiation of any of the submission made by the Bidder.

3.19 PROPOSAL EVALUATION

The Qualification Submissions of the Bidders would be checked for responsiveness with the requirements of the RFP and shall be evaluated as per the Criteria set out in this RFP.

3.20 DECLARATION OF SUCCESSFUL BIDDER

Upon acceptance of the Proposal of the tenderer technically qualified LCS (Least Cost Based Selection) criteria, BEPC, GoB shall declare the tenderers as the successful bidders for the Implementation of Scheme in selected schools under PM-SHRI scheme.

3.21 NOTIFICATIONS

BEPC, GoB will notify the Successful Bidder by a Letter of Intent/Award (LoI/LoA) that their Proposal has been accepted.

3.22 BIHAR EDUCATION PROJECT COUNCIL, GOB'S RIGHT TO ACCEPT OR REJECT PROPOSAL

- i. BEPC, GoB reserves the right to accept or reject any or all the Proposals without assigning any reason and to take any measure as it may deem fit, including annulment of the bidding process, without liability or any obligation for such acceptance, rejection or annulment.
- ii. BEPC, GoB reserves the right to invite revised Proposals from Bidders with or without amendment of the RFP at any stage, without liability or any obligation for such invitation and without assigning any reason.
- iii. BEPC, GoB reserves the right to reject any Proposal if at any time:
 - a. A material misrepresentation made at any stage in the bidding process is uncovered; or
 - b. The Bidder does not respond promptly and thoroughly to requests for supplemental information required for the evaluation of the Proposal.
 - c. This would lead to the disqualification of the Bidder. If such disqualification / rejection occurs after the Proposals have been opened and the Successful Bidder gets disqualified/ rejected, then BEPC, GoB reserves the right to take any such measure as may be deemed fit in the sole discretion of BEPC, GoB, including annulment of the bidding process.

3.23 PERFORMANCE BANK GUARANTEE (PBG)

- a. The successful bidder must furnish an unconditional and irrevocable bank guarantee / demand draft, in a format acceptable to BEPC, GoB valid for the 1 year or contract tenure or till warranty period whichever is later, of a value equivalent to 5% of the contract value within 14 working days of award of Letter of Intent (LOI).
- b. Failure to submit the PBG within the time stipulated in the LOI may lead to cancellation/ withdrawal of LOI and, in such case, BEPC, GoB reserves the right to take any such measure as may be deemed fit by BEPC, GoB, including annulment of the bidding process.
- c.

4 CRITERIA FOR EVALUATION

The evaluation would consist of following:

- a) **Technical evaluation:** The Bidder shall be examined prima facie to substantiate the compliance with the Bidder’s eligibility criteria as set out for this project in terms of organizational, financial and technical experience etc. The bid will be rejected, in case it does not meet the Eligibility criteria.
- b) Proposal may be rejected at any stage of the evaluation if it is found that the bidder has provided misleading information or has been blacklisted by a central or any state government or has indulged in any malpractice/ unethical practice or supplied poor quality items or issued show cause in any past or ongoing projects and has not honored contractual obligation elsewhere;
- c) After the technical evaluation is completed and approved, BEPC shall inform the Bidders who have submitted proposals, the detailed compliance of their Technical Proposals, and shall notify those Bidders whose Proposals did not meet the minimum technical criterion or were considered non-responsive to the RFP, that their Financial Proposals will not be opened. BEPC shall simultaneously notify in writing to the Bidders that have complied with the Technical Criterion specified in the RFP the date, time and location for opening the Financial Proposals.
- d) Please note that no conditional bid will be entertained

4.1 TECHNICAL QUALIFICATION CRITERIA

Following table describes the technical qualification criteria. A bidder participating in the bidding process shall possess the following minimum technical qualification/ eligibility criteria. Any bidder failing to meet the stated criteria shall be summarily rejected and will not be considered for Financial Evaluation.

Sl. No.	Requirement	Criteria	Documents Required
1	Legal Entity	The Bidder should be an established entity under Companies Act,	For Company Act - Copy of the Certificate of Incorporation issued

Engagement of Implementation Partner for Education Quality Enhancement in Selected Government Schools across Bihar under PM SHRI

		1956/2013 or Partnership Act 1932 or Indian Societies Registration Act 1860 or Indian Trust Act 1882 or Limited Liability Partnership Act 2008 or a Proprietorship firm.	<p>by the Registrar of Companies (RoC) under companies act 1956/2013 along with companies of Memorandum of Association (MoA) and Articles of Association (AoA).</p> <p>For Partnership Firm – Copy of Registration Certificate issued under partnership act 1932 along with partnership deed.</p> <p>For Limited Liability Partnership (LLP) Firm - Copy of the Certificate of Incorporation issued by the Registrar of Firms under Limited Liability Partnership Act 2008.</p> <p>For Society or Trust – Copy of the Certificate of Registration under Societies Registration Act 1860 or Indian Trusts Act 1882.</p> <p>For Proprietorship Firms - A proprietorship firm shall produce the proof of proprietorship firm, registration certificate, license.</p>
2	PAN, GST, ITR	The bidder should have a valid 1) PAN 2) GST registration 3) ITR of three assessment years (AY 2023-24, 2024-25 and 2025-26)	<p>1) Copy of PAN,</p> <p>2) Copy of GST Registration certificate and GSTR-3B return filed for September 2025 or 2nd quarter of FY 2025-26.</p> <p>3) Acknowledgment of Income Tax Return (ITR).</p>
3	Turnover	The bidder must have achieved a minimum average annual turnover of INR 250 crore for the last three financial years i.e. 2022-23, 2023-24 and 2024-25.	<p>1) Audit Report for last three financial years 2022-23, 2023-24 & 2024-25.</p> <p>2) Turnover certificate issued by Chartered Accountant/Company Secretary (Membership No., UDIN No. & Date must be mentioned).</p>

Engagement of Implementation Partner for Education Quality Enhancement in Selected Government Schools across Bihar under PM SHRI

4	ISO 9001:2015 Certification	The bidder shall have a valid ISO 9001:2015 certificate	Copy of ISO 9001:2015 Certificate
5	Positive Net worth	Should have positive net worth for the last three financial years ending on 31 Mar 2025.	1) Certificate issued by Chartered Accountant/Company Secretary (Membership No., UDIN No. & Date must be mentioned).
6	Experience (6.1)	<p>The bidder should have successfully undertaken at least the following numbers of similar nature of assignments of value specified herein: -</p> <p>One similar work order value not less than the amount of 100 Crores</p> <p style="text-align: center;">or</p> <p>Two similar work orders value not less than 75 Crores each</p> <p style="text-align: center;">or</p> <p>Three similar work orders value not less than 50 Crores each</p> <p>“Similar” is defined as: Supply, Installation and Maintenance of IT / ICT / Education projects under any State/Central Government/ Public Sector Undertaking (PSU) in last five (5) years as on bid submission date.</p>	Copy of Agreement /Work Order & completion certificate/ payment proof.
	Experience (6.2)	The bidder must have successfully undertaken single assignment to execute of Single Education project in minimum of 1000 Government schools under any State/ Central Government/PSU in last five (5) years as on bid submission date.	Copy of Agreement /Work Order & completion certificate/ payment proof.

Engagement of Implementation Partner for Education Quality Enhancement in Selected Government Schools across Bihar under PM SHRI

		submission date.	
7	Not Blacklisted	The bidder should not be blacklisted/debarred by any Central/ State Government institutions.	Affidavit sworn before Public Notary/Executive Magistrate as per Annexure - 8
8	Consortium	Consortiums of any kind are not allowed under this project.	

Note: -

- i. Consortium Purchase Order & Consortium will not be considered for evaluation.

4.2 Financial Bid Evaluation

- i. The Financial bids of technically qualified bidders will be opened on the prescribed date.
- ii. The bid price will include all taxes and levies and shall be in Indian Rupees.
- iii. Any conditional bid would be rejected.
- iv. Errors & Rectification: Arithmetical errors will be rectified on the following basis: "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. If there is a discrepancy between words and figures, the amount in words will prevail".
- v. If there is no price quoted for certain material or service, the bid shall be declared as disqualified.
- vi. The Total Bid Price, as computed by the Purchaser, shall be used for the purpose of financial evaluation of bids.

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- vii. The Lowest Cost Based Selection (L1) Method shall be used to select the bidder.
- viii. BEPC, GoB reserves the right to split the work on L1 rate among L1 & L2 bidders in 60:40 ratio or L1, L2 & L3 bidders in 50:25:25 ratio.

4.3 AWARD OF CONTRACT

- i. The Authority will award the Contract to the Bidder whose bid has been determined to be substantially responsive and has been determined as the best bid on LCS basis with Item wise lowest explored Prices.
- ii. The price is valid for the period of one year. BEPC, GoB reserves the right to extend price validity period and contract for one more year upon successful execution of project within time lines with best quality. Under these conditions, BEPC may place the workorder for additional quantity for future supplies.
- iii. BEPC will finalize the value of 5% PBG on final value equivalent to LoI/PO, and the same should be submitted by agency/firm within the period of 14 working days of the issue of LoI.
- iv. The Authority shall, however, not bind itself to accept the best bid or any bid and reserves the right to accept any bid, wholly or in part.
- v. BEPC, GoB shall notify the successful bidder in writing that the proposal has been accepted.
- vi. An agreement shall be signed between BEPC, GoB and the selected bidder's laying down the conditions of work, payment etc.
- vii. The clause related to the local purchase preference policy 2024 may be included.
- viii. The EMD of unsuccessful candidate will be returned within 15 days of selection of the Agency.

104

4.4 GENERAL EVALUATION ELABORATION

An evaluation committee constituted by the BEPC will evaluate the bids as per the following pattern:

- 1 Conditional bid shall be summarily rejected.
- 2 Evaluation committee will examine the bids to determine whether they are complete, whether any computational errors have been made, and whether the bids are generally in order.
- 3 Arithmetical errors will be rectified on the following basis: If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, Against the total price the base unit shall be corrected and deviation in any tax rates will lead to disqualification of bid. Incase tax varies in any line item, bidder should quote as per taxation law and failing of same will lead for disqualification of bid. If the Bidder does not accept the correction of the errors, his bid will be rejected. If there is a discrepancy between words and figures, the amount in words will prevail.
- 4 The Tenderer is expected to submit all product literature, brochures, technology sheets etc. documents along with General Bid for General Evaluation, in case document is not provided or provided but not a valid document, then the same parameter shall not be considered for marking for the specific Bidder. It is the Bidder's responsibility that all documents pertaining to every parameter of "General Evaluation Elaboration" need to be submitted and tagged/referenced to the evaluation parameter.
- 5 The Tenderer may conduct clarification meetings with each or any bidder to discuss any matters, technical or otherwise.
- 6 Further, the scope of the evaluation committee also covers taking of any decision regarding the RFP, execution/ implementation of the project including management period.

5. Scope of Work:

The Scope of work for the agency is not limited but would include the following:

- i. The rates shall be on F.O.R basis at school location across Bihar, or any of the locations in accordance as per the line item in accordance of the requirement within Bihar.
- ii. BEPC shall make available the details regarding all destination point details with Nodal Officer name and contact number where selected agency shall supply the materials/services.
- iii. Timeline for the supply and execution of project is **180 Days** from the date of PO/Agreement.
- iv. The contract will be initially for a period of one year and extendable for a further period of one more year under mutual agreement at the same terms and conditions subject to satisfactory performance of the agencies without any delays and poor executions.
- v. Consolidated Price shall be quoted in BOQ chart for each kit combined together with all the items as indicated in the financial bid as per technical specifications given in Annexure IA & 1B.
- vi. Prices shall be firm until the completion of work or supply and no enhancements of rates will be done / is permitted because of any escalation during the valid period of contract.
- vii. BEPC, GoB reserves the right to accept or reject any or part of offers without assigning any reasons.
- viii. The supply of all the items should be done within **180 Days** from the date of issuance of PO/Agreement and in case of any delay in delivery, penalty will be charged as per rules.
- ix. The quantity of items can be increased or decreased as per BEPC requirements in accordance with the budget sanctioned by State /central govt.
- x. Delivery time may be extended in case of any unforeseen circumstances such as natural calamities, emergency as per the mutual understanding of the department. The Delay due to production/procurement/logistics etc., reasons attributed to bidder not allowed under any circumstances.

- xi. The supply of all the items shall be carried out strictly in accordance with the terms & conditions and specifications as stipulated in the tender, in the approved workman like manner and as per standard practice. Materials supplied shall be of high quality.
- xii. Inspection: During the supply of the material, department reserves the right to collect sample from supplier location, in the presence of the supplier for testing. The supplier shall be responsible to get the approved collected sample and submit the test reports conforming to standards from Govt./NABL accredited lab/ Any third part Agency appointed by BEPC, GoB.

5.1 PROJECT DURATION

- The Contract Duration will be **for one year**.

5.2 Warranty:

- Consumables, Raw Materials, and Learning Aids: All consumable items, raw materials and educational aids—such as Science Kits, Math Kits, Social Science Kits, Math Lab Kits, books, sports items, and similar materials etc. shall be exempted from warranty coverage.
- Electronic Equipment and Software: All electronic equipment and associated software, including Digital TVs, Smart Classroom solutions, Desktops, Android Tab, Servers, and related systems, shall be covered under a standard one-year warranty from the date of installation.
- The warranty shall not apply to any physical damage resulting from mishandling, misuse, negligence, or external factors.

6. PAYMENT SCHEDULE AND PENALTY:

6.1 For Equipment Supply and Installation

Payment will be released after the satisfactory receipt of material at School Level. BEPC will provide details of locations for supply and designated the Nodal person.

Engagement of Implementation Partner for Education Quality Enhancement in Selected Government Schools across Bihar under PM SHRI

If the selected bidder fails to perform services within the stipulated time schedule, the BEPC shall, without prejudice to its other remedies under the contract, deduct from the contract price, as liquidated damages, a sum equivalent to 1% per week of the undelivered items/value. Penalty amount will be calculated 1% per week and first day of week penalty will be imposed for that week.

However, supply of at least 20% of order value materials against the purchase order will be completed and submission of bill along with delivery challan, the payment of 75% amount against that bill amount shall be released. Rest 25% will be paid after completion of 100% work of that line items and also receipt of verification report from concerned district.

6.2 For Manpower

The payments arrangements under this project are as follows:

- (a) The minimum gross wages/salary and related statutory compliance of the manpower salary as per the minimum wages act applicable in the State.
- (b) Agency will be responsible to made 100% payment to all deployed manpower at the end of every month. After payment and compliance of all statutory obligation (EPF, ESIC Minimum wages act etc.), the final bill along with proof of payment and compliance of all statutory obligations will be submitted to BEPC in the first week of every month. BEPC will pay the bill amount on satisfactory performance of the agency.
- (c) All Payments will be subject to deduction of Income Tax, GST and any other tax prevailing / applicable at the time of payment.
- (d) In bills all taxes should be shown separately.
- (e) No advance payment shall be made.
- (f) No interest would be payable on delayed payments. However, BEPC would normally make every possible effort to make payments promptly.
- (g) Liquidated Damages/Penalty

The applicable penalty which may be deducted from monthly invoice is as follows:-

Sl. No.	Parameters	Applicable Penalty
01.	Failure to provide services from the starting of lab (Vocational/ ICT/ others)	Rs 100 per day/-

Engagement of Implementation Partner for Education Quality Enhancement in Selected Government Schools across Bihar under PM SHRI

02.	Failure in replacement of Manpower beyond 15 days.	Rs 100 per day/-
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Note:

1. Payment will be as per GFR/BFR.
2. All payment to the Agency will be made in Indian Rupees.
3. GST components shall be paid as applicable and as per actuals.
4. No advance payment will be made
5. For facilitating Electronic Transfer of funds, the selected Agency will be required to indicate the name of the Bank & Branch, account no. (i.e. bank name, IFSC Code and Bank A/c No.) and forward a cheque leaf duly cancelled, to verify the details furnished. These details should also be furnished on the body of every bill submitted for payments by the selected Agency.

7. Dispute Resolution

- a) The bids and any contract resulting there from shall be governed by and construed according to the Indian Laws.
- b) All settlement of disputes or differences whatsoever, arising between the parties out of or in connection to the construction, meaning and operation or effect of this Offer or in the discharge of any obligation arising under this Offer (whether during the course of execution of the order or after completion and whether before or after termination, abandonment or breach of the Agreement) shall be resolved amicably between BEPC, GoB and the vendor's representative.
- c) In case of failure to resolve the disputes and differences amicably within 30 days of the receipt of notice by the other party, then the same shall be resolved as follows:
 - I. Conciliation: - All disputes or differences whatsoever arising between the parties out of or relating to the construction, meaning, scope, operation or effect of this contract



or the validity or the breach thereof shall be first settled by way of conciliation and failing which, by way of arbitration in accordance with the Rules of Arbitration of the Indian Council of Arbitration and the award made in pursuance thereof shall be binding on the parties.

- II. The dispute shall first referred to the Additional Chief Secretary, Department of Education, GoB for conciliation who shall conduct conciliation proceedings which will be held at Patna, Bihar.
 - III. Arbitration: - In case the conciliation proceedings fail, the dispute shall be referred to the arbitration as per the Arbitration Act.
 - IV. All legal disputes will come under the sole jurisdiction of Patna, Bihar. The venue of the arbitration shall be Patna.
- d) The Arbitral award shall be final and binding on both parties.
- e) Work under the contract shall be continued by the vendor during the arbitration proceedings unless otherwise directed in writing by BEPC, GoB unless the matter is such that the work cannot possibly be continued until the decision of the arbitrator is obtained. Save as those which are otherwise explicitly provided in the contract, no payment due, or payable by BEPC, GoB to the vendor shall be withheld on account of the ongoing arbitration

8. Termination & Blacklisting

- I. The BEPC, GoB may terminate this Agreement and Blacklist/Debar the vendor, in case of occurrence of any of the events specified below. In the event of such an occurrence, the First Party may give not less than 15 days written notice of termination to Second Party.
 - a) If the vendor is in material breach of its obligations pursuant to this Agreement and has not remedied the same within 15 days.
 - b) If the vendor becomes insolvent or goes into compulsory liquidation
 - c) If the vendor, in the judgement of BEPC, GoB has engaged in corrupt or fraudulent practices in competing for or in executing the contract

- d) If the vendor submits to BEPC, GoB a false statement which has material effect on the rights, obligations, or interests of the BEPC, GoB.
 - e) If the vendor places itself in position of conflict of interest or fails to disclose promptly any conflict of interest to the BEPC, GoB.
 - f) If the vendor fails to provide Quality products and services as envisaged under this Agreement.
 - g) If the vendor quoted prices are found abnormally high than market operating Prices/GeM Prices/ BEPC Previous Obtained Price references
 - h) Serious discrepancy and delay in delivery of services or the performance levels agreed upon, which might have an impact on the functioning of the BEPC, GoB.
 - i) Failure of the vendor mobilize manpower, follow local laws, clumsy execution of work, and total disregard to public safety and its own employees.
 - j) Failure to abide by any lawful directions of the BEPC, GoB.
- II. **Penalties:** - The BEPC, GoB may impose a penalty of the vendor of the failure of such activities as mentioned above. Such penalties shall be deducted from the pending bills/bank guarantee of the vendor. However, the BEPC, GoB shall issue a notice given 15 days of time to the vendor before imposing such penalty.
- III. **Termination Payments:** - These payments shall mean the amount of payment by either party to the other party upon termination. Upon termination of the contract, BEPC, GoB may encash and appropriate the performance security/bank guarantee etc. The BEPC, GoB may clear outstanding dues of the sub-vendors of the second party out of such encashment and/or from the pending bills of the second party. After clearing such liabilities, any valid dues of the second party may be paid thereafter
- IV. **Blacklisting without termination:** - The BEPC, GoB may blacklist the vendor without terminating the contract for any of the failures or acts of commissions or omissions under this Agreement.
- V. **Foreclosure with Mutual consent:** -
- a) Without prejudices to any provisions of this agreement, BEPC, GoB and the vendor may foreclose this agreement by mutual consent in circumstances which does not constitute either party's default without any liability or consequential future liability for either party.

- b) Should a Party intend to foreclose this Agreement by mutual consent, the intending Party shall issue a notice to the other Party and upon issuance of such notice, the other Party may within 15 days from receipt of such notice either agree to such foreclosure or raise objection(s) to the same by intimating either of the two possible positions to the intending Party in writing.
- c) In either case of the other Party agreeing to the proposed foreclosure or otherwise, the Parties may negotiate the proposed foreclosure and sign a Supplementary Agreement for foreclosure to the main Contract Agreement within 30 (thirty) days of the date agreed by both Parties. Foreclosure shall not come into effect unless and otherwise Supplementary Agreement is signed.
- d) Any attempt or endeavor for foreclosure by mutual agreement shall be without prejudice to the rights and obligations of the Parties herein and the factum of such an attempt or exercise shall not stop either of the Parties from discharging their contractual obligations under this Agreement.
- e) For the avoidance of doubt, it is clarified that such foreclosure will be without prejudice to the Vendor and shall not affect the Vendor in any way if it wishes to bid in future projects of the BEPC, GoB.

VI. Transition and Exit Plan:

The vendor shall ensure that the transition is smooth in case the contract is terminated or foreclosed with mutual consent. In addition to the cancellation of contract, BEPC, GoB reserves the right to charge appropriate penalties and liquidated damages from the selected Agency. Further:

- a) All risks during transition stage shall be properly documented to ensure smooth transition without any service disruption.
- b) The transition plan along with the period shall be mutually agreed between vendor and BEPC, GoB when the situation occurs. Vendor shall be released from the project once successful transition is done meeting the parameters defined for the successful transition.
- c) During the exit, vendor should provide the inventory list with Tagging of each item.

Note:- Blacklisting/Debarment of the vendor shall be natural consequence of the termination. The Blacklisting/Debarment shall be for such a period as may be specified by the BEPC, GoB. Provided that before placing the vendor in the blacklist, with or without the termination of the contract, the BEPC, GoB shall issue a notice given 15 days of time to the vendor.



ANNEXURE 1:

Scope of Work & Technical Specifications

Attached as separate Document

Annexure 1A – Scope of Work

&

Annexure 1B – Detailed Technical Specifications

ANNEXURE 2: LETTER OF SUBMISSION
(On the letterhead of the bidder)

To,

The State Project Director,
Bihar Education Project Council,
Shiksha Bhawan, Bihar Rashtrabhasha Parishad Campus,
Saidpur, Patna - 800 004.
e-mail: etenderbepc@gmail.com

Sub: - Letter of Submission for Engagement of Implementation Partner for Education Quality Enhancement in Selected Government Schools Across Bihar under PM SHRI.

Ref: - -----

Sir,

We have read and understood the Request for Proposal (RFP) in respect of the captioned Assignment provided to us by BEPC, Department of Education.

We hereby agree and undertake as under:

- a. Notwithstanding any qualifications or conditions, whether implied or otherwise, contained in our Proposal we hereby represent and confirm that our Proposal is unqualified and unconditional in all respects.
- b. This Proposal is valid till (180 days from the Proposal Due Date). RFP can be downloaded from the website <https://gem.gov.in>
- c. Bidder shall submit, along with their bids, EMD of Rs. XXXXXX crores (XXXXXXX crores only) in the form of Bank Guarantee issued by the Schedule Bank, in favor of the "State Project Director, Bihar Education Project Council (IFSC Code IOBA0002450).
- d. That as on the date of submission of this tender, there is no blacklisting order that bars us from working with any Government Agency / Department on account of deficiency in service.

Name of the Bidder

Date: -

Signature of Authorized Signatory

ANNEXURE – 3: LIST OF SIMILAR WORK

Sl	Name of Client	Location	Description of work	Value of Contract/Work in Rs.	Duration (Start date-Completion date)
1					
2					
3					

NOTES:

- Each of the listed works shall be supported with the copy of work order & other documentary evidence as per the eligibility and technical evaluation criteria.
- Non-disclosure of any information in the schedule will result in disqualification of the firm

Signature of the applicant/Authorized Representative of Agency with Seal/Stamp

12/

ANNEXURE – 4: Financial Bid Format

Indicative Format

Financial Bid of Agency for Implementing Integrated Educational Project for Government Schools across the State of Bihar.

Sl	Activity Master Detail Name	Quantity	Rate Per School/Unit/ Student/Teacher etc.	GST in %	GST Amount of Base Rate	Total Unit Price Including GST	Total Cost
		A	B	C	D=B*%C	E= B+D	F=A*E
1	Student Assessment						
2	Vocational Tools & Equipment						
3	Vocational - Raw material grant for new school per course						
4	Vocational Trainers- Resource Persons						
5	Vocational Teachers (2 teachers per schools - 2 trades)						
6	Vocational - Cost of providing hands-on Skill Training to Students						
7	Math Circles						
8	Math Kit						
9	Science Circles						
10	Science Kit						
11	Sports Equipment						
12	Development of Play Ground and Game Facilities						
13	Digital Software / Hardware						
14	Language Lab						
15	Computer Instructor						
16	Musical Instrument						
17	Outdoor Science Park						
18	Band Uniform						

Engagement of Implementation Partner for Education Quality Enhancement in Selected Government Schools across Bihar under PM SHRI

19	Band set						
20	Smart board with interactive learning panel						
21	Black boards / Green boards						
22	Enhancement of School Aesthetics						
23	Teacher ID card						
24	Student ID card						
25	CCTV Cameras						
26	Olympiad for Class VI to XII						
27	Social Science Kit						
28	Financial Literacy						
29	First Aid Kit						
30	School Magazine						
31	PM SHRI Selfie Point						
32	Health Devices						
33	Developing Innovation Culture and Entrepreneurship (DICE)						
34	Gamified Learning						
35	Drone Training						
36	Mentorship Programme						
37	Science and Math Curiosity Programme						
38	Furniture for Students						
39	Lab Equipment (Biology)						
40	Lab Equipment (Chemistry)						
41	Lab Equipment (Physics)						
42	Science Lab Establishment With All Equipment's (Physics)						
43	Science Lab						

Handwritten signature

Engagement of Implementation Partner for Education Quality Enhancement in Selected Government Schools across Bihar under PM SHRI

	Establishment With All Equipment's (Chemistry)						
44	Science Lab Establishment With All Equipment's (Biology)						
45	Dedicated furniture for library						
46	Colourful sorting dustbins painted in interesting characters for waste segregation						
47	Sanitary Pads						

- Note :**
- **Bidder shall quote all prices inclusive of the live monitoring tool software.**
 - This is just an indicative format of the financial bid, to be used for information purpose ONLY. Actual financial bid format is available on <https://gem.gov.in> and has to be submitted online through the GEM portal only. Any submission in hard copy will lead to rejection of the submitted bid.

Handwritten signature or mark.

ANNEXURE - 5:
FORMAT FOR EMD

Whereas (Hereinafter called “the Bidder”) has submitted its bid dated for Bihar Education Project Council RFP **Reference No.** **dated** **for** **(Project Name)**.

KNOW ALL MEN by these presents that WE OF Having our registered office at (Hereinafter called “the Bank”) are bound unto The STATE PROJECT DIRECTOR-BEPC (hereinafter called “the Purchaser”) in the sum of INR /- (..... Only) for which payment will and truly to be made of the said Purchaser, the Bank binds itself, its successors and assigns by these present.

THE CONDITIONS of the obligation are:

1. If the Bidder withdraws his bid 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 his bid by the Purchaser during the period of bid validity

(a) Fails or refuses to execute the Contract, if required; or

(b) Fails or refuses to furnish the Performance Security, in accordance with the instructions to Bidders.

We undertake to pay to the Purchaser up to the above amount upon receipt of its first written demand, without the purchaser having to substantiate its demand, provided that in its demand, the purchaser 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 in force up to and any demand in respect thereof should reach the Bank not later than the specified date/dates.

witness
Address of witness

Signature of the Bank
Authority. Name
Signed in Capacity of Name & Signature of
Full address of Branch
Tel No. of Branch
Fax No. of Branch

12

ANNEXURE - 6:
Performance Bank Guarantee Format

To

The State Project Director,
Bihar Education Project Council (BEPC),
Shiksha Bhawan, Saidpur-800 004. (BIHAR)

Whereas Bid (hereinafter called "the Bidder") has submitted its Bid dated (date of submission of Bid) for " (Name of Project) in consonance with the RFP Reference No. BEPC/..... Dated (GeM Bid No.)) issued by the BEPC, Patna, (hereinafter called "the Bid"].

Whereas as per GeM Bid Clause of the Bid, the bidder is required to furnish a Bank Guarantee as Performance Security from a scheduled bank (Bank Guarantee).

In consideration of the fact that the Bidder is our valued customer and the fact that he has submitted the Bid, we, (name and address of the bank), (hereinafter called "the Guarantor Bank") has agreed to bind ourselves, our successors, and assigns to irrevocably issue this Bank Guarantee and guarantee as under

NOW THIS GUARANTEE WITNESSED:-

1. If the Bidder

having been notified of the acceptance of its Bid by the State Project Director, Bihar Education Project Council (BEPC), Patna

- (a) during the period of Bid Proposal validity:
- (b) fails to perform as per the contract obligations

The Guarantor Bank shall immediately on demand pay the State Project Director, Bihar Education Project Council (BEPC), Patna, without any demur and without the State Project Director, Bihar Education Project Council (BEPC), Patna having to substantiate such demand a sum of Rs. (-----) only (Guaranteed Amount).

2 The Guarantor Bank will make the payment of the Guaranteed Amount forthwith on the demand made by the State Project Director, Bihar Education Project Council (BEPC), Patna notwithstanding any objection or dispute that may exist or arise between the State Project Director, Bihar Education Project Council (BEPC), Patna, and the Bidder or any other person.

3 The demand of the State Project Director, Bihar Education Project Council (BEPC), Patna on the Guarantor Bank for the payment of the Guaranteed Amount, shall be deemed as the final proof of fulfilment of the conditions stipulated in (1) above,



4. This Guarantee shall be irrevocable and shall not be discharged except by payment of the above amount by us to the State Project Director, Bihar Education Project Council (BEPC), Patna and our liability under this Guarantee shall be restricted to the Guaranteed Amount being Rs.() only.
5. If it is necessary to extend this Guarantee on account of any reason whatsoever. we undertake to extend the period of this Guarantee on the request of the Bidder under intimation to the State Project Director, Bihar Education Project Council (BEPC), Patna.
6. To give full effect to the Guarantee contained herein, the State Project Director, Bihar Education Project Council (BEPC), Patna shall be entitled to act as if the Guarantor Bank is the principal debtor in respect of claims against the Bidder and the Guarantor Bank hereby expressly waives all its rights of surety-ship and other rights, if any, which are in any way inconsistent with any of the provisions of this Guarantee.
7. Any notice by way of demand or otherwise may be sent by special courier, telex, fax, registered post or other electronic media to our address as aforesaid and if sent by post, shall be deemed to have been given to us after expiry of 48 hours when the same has been posted.
8. Our liability under this Guarantee will continue to exist until a demand is made by the State Project Director, Bihar Education Project Council (BEPC), Patna in writing up to dated, and any demand in respect thereof should reach the Bank not later than the above date.

Dated this day

Yours faithfully,

For and on behalf of the Guarantor Bank,

(Signature)

Designation

(Address and Common Seal of the bank)

Note: To be executed at the time of Signing of Contract by the Selected Vendor



ANNEXURE - 7:

Authorization Letter for Signing of Proposal

(On Non-judicial stamp paper of Rs 1000 duly attested by notary public)

POWER OF ATTORNEY

Know all men by these present, we (name and address of the registered office R/o of the Single Entity) do hereby constitute, appoint and authorize Mr./Ms. (name and address of residence) who is presently employed with us and holding the position of as our authorized representative, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to the bid of the firm/ organization, for " **Engagement of Implementation Partner for Education Quality Enhancement in Selected Government Schools across Bihar under PM SHRI** " (the "**Project**"), including signing and submission of all documents and providing information/ responses to Bihar Education Project Council (BEPC), representing us in all matters in connection with our bid for the said Project.

We hereby agree to ratify all acts, deeds and things lawfully done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall and day of 2026. shall always be deemed to have been done by us. Dated this the day of 2026.

For

(Name, Designation and address)

Accepted

..... (Signature)

(Name, title and address of the Attorney)

Date:

Note:

(i) The mode of execution of the Power of Attorney (PoA) should be in accordance with the procedure, if any, laid down, by the applicable law and the charter documents of the executants and when it is so required the same should be under common seal affixed in accordance with the required procedure.

(ii) in case, an authorized director of the bidder/agency signs the bid, a certified copy of the appropriate resolution/document conveying such authority may be enclosed in lieu of the Power of Attorney (PoA).



ANNEXURE - 8:

Declaration by Bidder

Format for Affidavit certifying that Entity/Promoter(s)/Director(s)/Members of Entity are not Blacklisted

(On Non-judicial Stamp Paper of INR 1000/-)

Affidavit

I, M/s (the names and addresses of the registered office) hereby certify and confirm that we or any of our promoter(s)/ director(s) are not blacklisted/ barred/convicted by any court of law for any criminal or civil offences/ declared ineligible by Department of Education or any other entity of GoB or any entity of state government or Govt. of India, or any local self-government body or public undertaking in India for participating in future bids for unsatisfactory performance, corrupt, fraudulent or any other unethical business practices or for any other reasons, as on date of submission (upload) of online bidding document.

And that we are hereby, declaring all ongoing litigations where our promoter(s)/ director(s) are involved in with any government agency/state/central department/PSU, and as mentioned below:

- 1.
- 2.
- 3.
- 4.

We understand that our bid for the captioned Project would be liable for rejection in case any material misrepresentation is made or discovered at any stage of the Bidding Process or thereafter during the contract period and the amounts paid till date shall stand forfeited without further intimation.

Dated this Day of, 2026

Name of the Bidder/agency.....

Signature of the Authorized Person :

Name of the Authorized Person

Designation of the Authorized Person :



ANNEXURE - 9

CONTRACT/AGREEMENT FORM

THIS AGREEMENT made the day of the 2026 between Bihar Education Project Council, Shiksha Bhawan, Saidpur, Rajendra Nagar, Patna -800 004 (hereinafter " the BEPC") of the one part and (Name of Agency) of (City of Agency) (hereinafter called "the Agency) of the other part.

WHEREAS the BEPC is desirous that certain services viz..... (Brief Description of Services) and has accepted a bid by the agency for the Education "Quality Enhancement in selected 789 Government Secondary/Senior Secondary Schools in Bihar" (with paper) and services in the sum of Rupees (Contract Price in Words Figures) (hereinafter called "the Contract Price ").

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz
 - (a) NIT, bid document, Corrigendum, Addendum will the treated as part of the agreement.
 - (b) The Bid Form and the Performa for Price bid submitted by the Bidder
 - (c) The Description of works
 - (d) The Terms & Conditions of Contract,
 - (e) The BEPC's Notification of Award.
3. In consideration of the payments to be made by the BEPC to the Agency as hereinafter mentioned, the Agency hereby covenants with the BEPC to provide the goods and services and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The BEPC hereby covenants to pay the Agency in consideration of the provision of the goods and services and the remedying of defects therein, the Contract Price or such

other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

Brief particulars of the work and services which shall be supplied / provided by the Agency are as under :

Sl No	Brief Description of Services	Quantity to be Supplied	Per Item Price	No. of Items Supplied	Total Contract Price	Delivery Terms

TOTAL VALUE
DELIVERY SCHEDULE:

34

Annexure 1A:
Scope of Work
for Implementation of Solutions in PM SHRI Schools
(Detailed Scope with technical specifications will follow in Annexure 1B)

Sl.	Activity Master Detail Name	No. of Schools	Physical Quantity
1	Student Assessment	789	789
2	Vocational Tools & Equipment	789	789
3	Vocational -Raw material grant for new school per course (New)	789	789
4	Vocational Trainers - Resource Persons (New)	789	789
5	Vocational Teachers (2 teachers per schools - 2 trades)	789	1578
6	Vocational -Cost of providing hands-on Skill Training to Students (New)	789	789
7	Math Circles	789	24979
8	Maths Kit	789	789
9	Science Circles	789	24979
10	Science Kit	789	789
11	Sports Equipment	789	789
12	Development of Play Ground / Outdoor / Indoor Sports Game Facilities	789	789
13	Digital Software / Hardware / ICT /Smart Classroom / Computer Lab	789	789
14	Language Lab	789	789
15	Computer Instructor	789	789
16	Musical Instrument	789	789
17	Outdoor Science Park (NR)	38	38
18	Band Uniform	789	789
19	Band set	789	789
20	Smart Board with Interactive Learning Panel	789	789
21	Black Boards/ Green Boards	789	789
22	Enhancement of School Aesthetics	789	789
23	Teacher ID card	789	11784
24	Identity Cards for Student	789	624444
25	CCTV Cameras	789	789
26	Olympiad for Class VI to XII	789	789
27	Social Science Kit	789	789
28	Financial Literacy	789	789
29	First Aid Kit	789	789
30	School Magazine	789	789
31	PM SHRI Selfie Point	789	789
32	Health Devices	789	789

33	Developing Innovation Culture and Entrepreneurship (DICE)	789	789
34	Gamified Learning	789	789
35	Drone Training	789	789
36	Mentorship Programme	789	789
37	Science and Math Curiosity Programme	789	789
38	Furniture for Students	312	312
39	Lab Equipment (Biology)	179	179
40	Lab Equipment (Chemistry)	185	185
41	Lab Equipment (Physics)	190	190
42	Science Lab Establishment with All Equipment (Physics)	599	599
43	Science Lab Establishment with All Equipment (Chemistry)	604	604
44	Science Lab Establishment with All Equipment (Biology)	610	610
45	Dedicated furniture for library	485	485
46	Colourful sorting dustbins painted in interesting characters for waste segregation	789	789
47	Sanitary Pads	789	325758
48	Inventory Management System		
49	Distribution Tracking software		

not

1. Student Assessment

Total Schools: 789

Scope of work: Supply & Installation of Student Assessment Software. This is a web-based platform designed to facilitate the creation, delivery, and evaluation of online assignments, assessments for Schools institutions. The primary goal of the portal is to provide a user-friendly and efficient solution for conducting various types of assessments, such as quizzes, exams, and skill-based tests, online course material for the students.

2. Vocational Tools & Equipment

Total Schools: 789

Scope of work: Supply, installation, and commissioning of **vocational tools and equipment** for any of the **2 trades in each school**, along with **comprehensive training** for teachers and students. The training will focus on the effective use of tools, safety procedures, and basic skills related to the trade. This initiative is designed to help students gain practical knowledge and prepare for real-world job roles. Hands-on training sessions will be conducted by experts to ensure that teachers and students are confident in using the equipment. Training materials and manuals will also be provided for continued learning and classroom integration.

S. No.	Trade
i.	Agriculture
ii.	Automotive
iii.	Apparel
iv.	Electronics
v.	Healthcare
vi.	Tourism
vii.	Telecom

Note : Details given in annexure – I B

3. Vocational - Raw material

Total Schools: 789

Scope of work: Supply of trade-specific consumables and raw materials to support practical training and classroom activities for 2 vocational trades per school. These materials are essential for regular hands-on practice, skill development, and demonstration-based learning aligned with the selected job roles.

S. No.	Job role
i.	Agriculture
ii.	Automotive
iii.	Apparel
iv.	Electronics
v.	Healthcare
vi.	Tourism
vii.	Telecom

Note : Details given in annexure – I B

101

4. Vocational - Hands-on skill training to students

Total Schools: 789

Scope of Work: The bidder shall conduct a 2-day training workshop at each school every six months, focusing on practical skill development for both students and teachers across the two selected vocational trades. The training ensures hands-on exposure to tools, real-life work scenarios, and adherence to safety norms.

Sr. No.	Section	Details
1	Training Duration & Structure	4-day workshop per school; 4+ hours/day; includes theory and hands-on practice.
2	Training Coverage	Covers equipment use, trade skills, safety protocols, real-world tasks, and live demos.
3	Training Materials & Resources	a. Printed guides for each trade
		b. Video manuals (equipment + safety) via school system.

5. Math Student Kit

Total Schools: 789

Scope of Work: Supply of Math kits for students along with training. (Ten (10) kits each for classes 6 to 10 respectively) are to be provided in 789 schools. Each of the 789 schools should be provided with Math kits along with training support.

Sr. No.	Name	Quantity per School
1	Math Kit for Class 6	10 kits
2	Math Kit for Class 7	10 kits
3	Math Kit for Class 8	10 kits
4	Math Kit for Class 9	10 kits
5	Math Kit for Class 10	10 kits

6. Math School Kit

Total Schools: 789

Scope of work: Math Lab should be established in each of the 789 schools with the following specifications.

1. Supply of tools for hands on learning.
2. Activity based Video tutorials.

Sr. No.	Description	Qty
1	9" Geoboard	5
2	8" Fraction Geoboard	5
3	X-Y Coordinate Board	5
4	Linking Cube Graph Board with linking cubes set of 100	1
5	2D3D Geometric Set	2
6	2D3D Flip Chart	5
7	Volume Relation between Cube and Sphere	5
8	Geometric Volume Set	2

9	Hollow Cylinder	5
10	Hollow Sphere	5
11	Teacher Geometry Box	1
12	Trigonometry Board	5
13	Arithmetic Progression Kit	5
14	Ruler Set	5
15	Algebra Tiles	5
16	Clinometer Compass	5
17	Plane Erase Board (Set of 30 Boards)	1
18	X-Y Dry Erase Board (Set of 30 Boards)	1
19	Graph Erase Board (Set of 30 Boards)	1
20	Fraction Circles	5
21	Symmetry Kit	5
22	Base Ten Blocks	2
23	Storage Cabinet	2

7. Science Student Kit

Total Schools: 789

Scope of Work: Science kits should be supplied to students along with training, with ten (10) kits each for Classes 6 to 10 to be provided in 789 schools.

Sr. No.	Name	Quantity per School
1	Science Kit for Class 6	10 kits
2	Science Kit for Class 7	10 kits
3	Science Kit for Class 8	10 kits
4	Science Kit for Class 9	10 kits
5	Science Kit for Class 10	10 kits

8. STEM School Kit

Total Schools: 789

Scope of work: Science (STEM) Labs/Kits should be established in 789 schools as per the following specifications.

1. Supply of tools for hands on learning.
2. Delivery of activity based video tutorials.

Name of Kit	Qty
Strawbot/ Straw Robot	4
Electronics Starter Kit	4
STEM Electronics	4
Science-Bot	4

9. Sports Equipment

Total Schools: 789

Scope of Work: Supply of sports equipment with a focus on cricket kits to promote physical education and team sports in schools. The initiative aims to encourage student participation in outdoor games, improve fitness, and foster team spirit through structured sports activities.

Sr. No.	Items	Quantity
i.	Sports Kit for upper primary classes	1
ii.	Sports Kit for Secondary/Senior Secondary Classes	1

List of Equipment:

i. Upper Primary:

Sl. No.	Item	Qty
1	Football 4 No.	1
2	Volleyball	1
3	Foot pump	1
4	Wooden Stump (Set of 6) with bails (4 No.)	2
5	Wooden Bat 4 No.	2
6	Wooden Bat 6 No.	2
7	Tennis Ball	2
8	Badminton Racket	2
9	Shuttle Cock	6
10	Skipping Rope	2
11	Relay Baton	1
12	Wooden Chess 16"	1
13	Carrom Board	1
14	Hurdle's 9 Inches	4
15	Marking Cones 6 inches	4
16	Marking Cones 9 inches	4
17	Marking Cones 12 inches	4
18	Soccer Cone	1
19	Frisbee	1
20	Tennikoit	1
21	Kit Bag	1

ii. Secondary /Sr Secondary:

Sl. No.	Item	Qty
1	Football No 5	2
2	Volley ball No. 4	2
3	Throw ball No. 5	2
4	Foot pump	1
5	Cricket Bat Full Size	2
6	Cricket Bat No. 6	2
7	Tennis ball	6
8	Wooden Stump (Set of 6) with bails (4 No.)	2
9	Badminton Racket	4
10	Shuttle Cock	8
11	Marking Cones 6 inches	4



12	Marking Cones 9 inches	4
13	Marking Cones 12 inches	4
14	Hurdels 12 Inches	4
15	Wooden Chess 16"	1
16	Frisbee/Flying Disk	5
17	Skipping Rope	5
18	Stop Watch	2
19	Volley Ball Net	1
20	Relay Baton set of 6 Pcs	1
21	Carrom Board	1
22	Soccer Cone	10
23	Tennikoit	2
24	Kit Bag	1

10. Development of Playground Facilities

Total Schools: 789

Scope of Work: Development of playground facilities to promote physical fitness and sports participation among students. This includes the installation of court flooring and fixed poles for badminton and volleyball, creating safe and standard-compliant play areas.

Sl. No.	Playground	Quantity
Outdoor		
1	Badminton Court Flooring & Fixed Type Poles	1
2	Volleyball Court Flooring & Fixed Type Poles	1
Indoor		
1	Table Tennis Set up (2 TT Rackets, 6 Balls, 1 Table Cover & Clamp Net)	2
2	School Cricket Kit (Primary, Upper Primary and Secondary /Sr Secondary schools)	6 Kits Per School each

11. Digital Software / Hardware

Total Schools: 789

Scope of work: Digital hardware and software solutions should be supplied, installed, and accompanied by training to establish ICT enabled Learning labs in 789 schools. The setup should include State of Art Configured Desktops, Printer, Headset, Webcams, Network equipment, Chairs, Tables, Device management Systems, Microsoft Tools for AI programing, Hackathons and administrative tasks.

SL No.	Items	Quantity
1	Desktop	8
2	Printer	1
3	UPS	1
4.	Headset	8
5.	Table	9
6.	Chair	24
7.	Networking Component	1
8.	Electrification, Installation & Teacher training	1

12. Language Lab

Total Schools: 789

Scope of Work: Supply, installation, commissioning, and training of **Language Labs** to enhance English language learning in schools. The lab setup will include the required hardware and software to facilitate interactive and immersive language instruction focused on listening, speaking, reading, and writing (LSRW) skills.

S. No.	Description	Qty. Per Lab
1	English Language Lab Software	1
2	Wired Headphones	15
3	Android Tablets	15
4	Networking Device for Wi-Fi Connection	1

13. Musical Instrument

Total Schools: 789

Scope of Work: Provision of **functional and age-appropriate musical instruments** to promote music education and creative expression among students. Each school will receive one set of instruments for **Upper Primary** and one set for **Secondary/Senior Secondary** levels. The instruments are selected to support both traditional and modern music learning within the school curriculum and co-curricular activities.

Sr. No.	Description	Quantity
i.	Musical Instrument for Upper Primary Classes	01
ii.	Musical Instrument for Secondary/ Sr. Secondary Classes	01

i. Musical Instrument for Upper Primary Classes

Sl. No.	Item	Quantity
1	Tabla Set	1
2	Dafli (Tambourine)	2
3	Dholak/ Naal	1
4	Virgin Plastic Zheeka Big 10 jingles	2
5	Virgin Plastic Zheeka Small 6 jingles	2
6	Brass Manjira	1
7	Keyboard 61 keys	1
8	Bansuri (Flute)	2
9	Ghungroo anklet (25 pc per anklet)	1
10	PA System -Speaker and Mic	1

ii. Musical Instrument for Secondary/ Sr. Secondary Classes

Sl. NO.	Items	Quantity
1	Harmonium	1
2	Dafli (Tambourine)	2
3	Dholak/ Naal	1

4	Tabla set	1
5	Virgin Plastic Zheeka Big 10 jingles	2
6	Virgin Plastic Zheeka Small 6 jingles	2
7	Brass Manjira	2
8	Keyboard 61 keys	1
9	Bansuri (Flute)	2
10	Speaker and Mic	1
11	Gungroo anklet (25 pc per anklet)	2

14. Outdoor Science Park

Total Schools: 38

Scope of Work: Supply and installation of Outdoor Science Parks in selected schools to promote experiential, interactive, and play-based learning through life-size science models. These open-air Teaching-Learning Material (TLM) parks are designed to make scientific concepts more accessible and engaging for students through practical demonstration and self-exploration. Bidder should provide fencing and sand filling the area for smoother soil.

List of Equipment:

Sr. No.	Models	Qty
1	Newton's Cradle	1
2	BCC Crystal Structure	1
3	Time Indicator Globe	1
4	Periodic Table	1
5	Cartesian Plane	1
6	Gear Belt Chain Drive	1
7	Pythagoras Theorem	1
8	DNA Model	1
9	Newton's Color wheel model	1
10	Wave motion model	1

15. Band Uniform

Total Schools: 789

Scope of Work: Supply of 25 complete band uniform sets in each school to support school-level ceremonial and parade activities. Each set includes coordinated clothing and accessories made of standard materials suitable for marching and performance, ensuring both durability and uniform appearance.

Sr. No.	Item name
1	Band coat/jacket
2	Trousers/skirt (trouser for boys)
3	Headgear/ P Cap
4	Lanyard
5	Belt

101

6	Gloves (white)
7	Sashes or cummerbund
8	Anklets
9	Shoes
10	Socks

16. Band set

Total Schools: 789

Scope of Work: Supply of band instruments to equip schools with a complete marching and musical band set. The instruments are selected to support school parades, ceremonial functions, and cultural activities, fostering rhythm, coordination, and musical discipline among students.

Sl. No	Item	Qty
1	Brass Trumpet	3
2	Stainless Steel Side Drum with sticks	8
3	Stainless Steel Bass drum/ PT DRUM with beater	2
4	PT Drum Stand	1
5	Stainless Steel Cymbals 8"	3
6	Stainless Steel Cymbals 10"	3
7	Major Stick/ Leading Sticks	1
8	Brass Bigul	3
9	Brass Cornet	3
10	Bansuri-Steel (Flutes)	6
11	Maracas Small	5
12	Maracas Big	3
13	Virgin Plastic Zheeka/ Jhaal 10 jingles	6
14	Hat	1

17. Smart Board With Interactive Learning Panel

Total Schools: 789

Scope of Work: Supply and installation of Smart Boards with Interactive Learning Panels to enhance digital teaching and learning in classrooms. The system includes large-format interactive panels integrated with computing units and essential peripherals to support multimedia instruction, digital content delivery, and classroom interactivity

Sl. No.	Item Details	Qty
1	Interactive Flat Panel 75"	02
2	OPS	02
3	Protective casing for panel	02
4	Web Camera	02
5	1 KVA UPS	02

18. **Green Boards**

Total Schools: 789

Scope of Work: Supply and installation of standard-sized green boards (8 ft × 4 ft) in classrooms across schools to support traditional blackboard-based teaching. These boards are designed for high visibility, durability, and ease of use with chalk, and are to be installed in multiple classrooms within each school.

Sr. No.	Description	Quantity
1	Greenboard	8

19. **Enhancement of School Aesthetics**

Total Schools: 789

Scope of work: Digital Signage systems with Content Management Software (CMS) should be supplied and installed in 789 schools to enhance visual communication and overall school aesthetics. These digital displays should be used for showcasing school announcements, educational content, student achievements, event updates, and government messages in a dynamic and visually engaging format. In Addition to this, bidder should do necessary electrification and room paintings and paste curiosity enabled wall posters.

Sr. No.	Description	Quantity
1	Supply & Installation of Digital Signage with CMS	789 schools

20. **Teacher ID card**

Total Teachers: 11,784

Scope of Work: Provision of standardized ID cards for all teachers to support identity verification, professional recognition, and ease of access during institutional and administrative activities. Each card will include teacher details, photo, school name, and necessary authentication elements such as QR code or barcode (if applicable).

Sr. No.	Description	Quantity
1	ID Cards for Teachers	11784

21. **Student ID card**

Total Students: 6,24,444

Scope of Work: Provision of standard student ID cards for all enrolled students to support identification, school record management, and campus safety. Each ID card will include the student's name, photograph, school name, class, and other relevant details in a durable and school-branded format.

Sr. No.	Description	Quantity
1	ID Cards for Students	624444

709

22. CCTV Camera

Total Schools: 789

Scope of Work: Provision and installation of a CCTV surveillance system in schools to enhance safety, monitoring, and administrative oversight. The system includes essential components for effective indoor and outdoor coverage, ensuring secure data storage and real-time monitoring capability.

Sr. No.	Item	Quantity
1	IP/Bullet Cameras	5
2	NVR	1
2	POE Giga Switch	1
3	Hard Disk Drive (HDD)	1
4	CAT 6 Cable	----
5	LED Monitor (Optional)	1
6	Rack 6U	1
7	Conduit/Accessories	1

23. Olympiad for Class VI to XII

Total Schools: 789

Scope of Work: Organization of Olympiad examinations in Mathematics and Science for students of Classes VI to XII. The exams will be conducted offline at the school level, encouraging academic excellence, competitive spirit, and analytical thinking among students. The activity includes preparatory material, participation certificates, and recognition for top performers.

Sr. No.	Product/Item	Qty
1	Provision of conducting Olympiad Exam in classes VI to XII for a maximum of 250 children. (Including provision of practice book, medals for rankers and certificate for all participants)	1

24. Social Science Kit

Total Schools: 789

Scope of Work: Supply, installation, and training for Social Science Kits in schools to promote hands-on, activity-based learning. The kits consist of educational models, instruments, and teaching aids to help students understand key concepts through interactive demonstrations. Basic training shall be provided to teachers to ensure effective classroom use and integration into lesson plans.

Sr. No.	Product/Item	Qty
1	Binoculars	1
2	Solar System (8 Planets), Motorized Model	2
3	Compass	2
4	Solar and Lunar eclipse	1
5	Day & Night Apparatus, Electrical Model	1
6	Layer of Sun Model	1
7	Earth layer model	1

8	Volcano	1
9	Seismograph Model	1
10	4 seasons models, Electrical Model	2
11	Phases Of the Moon, Electrical Model	1
12	Wind vane	1
13	Anemometer simple	1
14	Rain Gauge	1
15	Set of Metals (15)	2
16	Sun dial	1
17	Earthquake Model	1
18	Set of Rocks (15)	2
19	Set of Minerals (15)	2
20	DAM Working Model	1
21	Windmill	1
22	Rainwater Harvesting	1
23	Layers of Soil	2
24	Charts on various topics	20

25. Financial Literacy

Total Schools: 789

Scope of Work: Provision of a Financial Literacy Course for students of Classes VI to XII to build foundational awareness of personal finance, savings, digital payments, budgeting, and responsible money management. The course will include modular video lessons, designed for self-paced learning, and will be uploaded on the school's LMS or digital platform for easy access by students and teachers.

Sr. No.	Product/Item	Qty
1	Provision of Financial Literacy Course for classes VI to XII – Modular Video lessons; to be uploaded on school LMS	1

26. First Aid Kit

Total Schools: 789

Scope of Work: **Supply and delivery** of fully equipped **First Aid Kits** to ensure immediate medical response capability in schools. Each kit includes basic medications, wound care supplies, instruments, and emergency response items, aligned with school safety standards. Medications are to be used **under the supervision of qualified personnel** only.

Sl. No.	List of Item		Qty
1	Medications (to be administered under qualified supervision)	Paracetamol tablets (500 mg) – pack of 10	2
		ORS (Oral Rehydration Salts) packets	10
		Antiseptic ointment (e.g., Betadine)	1
		Antacid tablets (e.g., Digene) – pack of 10	2
		Anti-vomiting medication (e.g., Ondansetron) – pack of 10	2
		Pain relief gel/ spray (e.g., Diclofenac)	1
		Glucose Chewable Tablet	1
2	Wound Care Supplies	Gauze Swab	5

		Dressing Bandages 5 cm	2
		Dressing Bandages 10 cm	2
		Dressing Bandages 15 cm	2
		Crepe Bandage 10 cm	1
		Adhesive Tape 2.5 cm	1
		Cotton Roll (20 gm)	1
		Tinture Iodine Solution	1
		Antiseptic wipes	1
		Disposable gloves	2
3	Instruments	Scissors (blunt ended)	1
		Tweezers	1
		Digital thermometer	1
		Measuring spoon or cup	1
		Tongue Depressor	1
		Safety pins	1
		Pen Torch	1
4	Additional Items	CPR face shield or mask	1
		Eye wash solution	1
		Burn relief dressing	1
		Instant cold packs	1
		First aid manual	1
5	All the material above to be packed in a sturdy plastic box		

27. School Magazine

Total Schools: 789

Scope of Work: Provision of age-appropriate monthly magazines for students from Classes I to XII to promote reading habits, creativity, general awareness, and language skills. The magazines will be delivered on a monthly basis and tailored to the comprehension levels of different class groups, supporting curricular and co-curricular engagement.

Sr. No.	Description	Quantity
1	Monthly Magazine for Classes VI to VIII	15
2	Monthly Magazine for Classes IX to XII	15

28. PM SHRI Selfie Point

Total Schools: 789

Scope of Work: Provision of a dedicated Selfie Point in each school under the PM SHRI initiative to serve as a visual landmark for students, teachers, and visitors. The selfie point is designed to promote school identity, encourage student pride, and create an engaging environment that celebrates achievements and school spirit.

Sr. No.	Product/Item	Qty
1	A dedicated space for students, teachers, and visitors to capture memorable moments, fostering a sense of pride and belonging within the school community.	1

29. Health Devices

Total Schools: 789

Scope of Work: Supply of essential health monitoring devices to support basic health check-ups and wellness monitoring for students and staff. The equipment facilitates regular measurement of vital parameters, promoting a healthier school environment.

Sl. No.	Item Details	Qty
1	Blood Pressure Monitoring Machine	01
2	Oximeter	01
3	Nebulizer	01
4	BMI Calculator Machine	02
5	Health Monitoring Software	01

30. Innovative Learning Tools

Total Schools: 789

Scope of Work: Provision of a Humanoid Robot along with training workshops for teachers and students to facilitate hands-on learning in robotics, including mechanical structure, motion design, coding, and sensor integration.

Sr. No.	Product/Item	Qty
1	Provision of Humanoid Robot	3

31. Gamified Learning

Total Schools: 789

Scope of Work: Provision of a Gamified Learning along with training workshops for teachers and students to facilitate hands-on learning.

S.No		Feature	Description
1	Gamified Learning Tool-Qty 1 per school	Chemistry Resource Pack	Explore elements, compounds, and chemical reactions. Conduct virtual experiments using a periodic table and lab tools.
		Custom Blocks for Educators	Special blocks to: Restrict movement, Preserve structures, Designate build zones.
		Lesson Library	Access to 600+ ready-to-teach lessons across subjects: STEM, History, Language Arts, Math, Climate Science, and more.
		AI and Cyber Safety Modules	Lessons on AI literacy, digital citizenship, and cybersecurity.
		3D Exporting	Export student creations for use in Remix 3D or other 3D modeling tools.

32. Drone Training

Total Schools: 789

Scope of Work: Supply of drones and conduct of training workshops to introduce students to drone technology, programming, and applications. The training aims to build practical skills in drone operation, coding, and problem-solving through hands-on learning.

Sr. No.	Drone Type	Quantity per School
1	Nano Programmable Drone (Without Camera)	10 kits
2	Drone	10 kits

33. Mentorship Programme

Total Schools: 789

Scope of Work: Provision of a structured Mentorship Programme designed to support student development through regular interaction, skill-building, and guidance. The program includes quarterly lectures, group activities, workshops, and ongoing progress evaluation to foster holistic growth.

Sr. No.	Topics to be covered	Qty
1	Webinar (5 topics every quarter)	20
2	Mentorship program handbooks	20
3	Quarterly group activities and workshops	4
4	Quarterly and annual progress logs and evaluation reports	1

34. Science and math Curiosity Program

Total Schools: 789

Scope of Work: Establishment of a Science and Math Curiosity Lab to stimulate student interest and inquiry in foundational scientific principles and mathematical concepts through interactive activities and hands-on experiments.

Sr. No.	Section / Item	Quantity
1	Light & Optics (Dark Room)	
	Dark Room Infrastructure	1
	Light and Optics kit	2
	Laser optical Tank	1
	Colour Shadow	1
2	Illusion & Visual Perception Zone	
	Funny Mirror	2
	Persistence of Vision	1
	Parrot-in-Cage Illusion	1
	Infinity Tunnel	2
	Kaleidoscope	2
	Corner Mirror	1
3	Mathematics Tools	
	Tower of Brahma	2
	Parking Puzzle	2
	Pegboard Puzzle	2
	Activity Worksheets for theorems	1

35. Furniture for Students

Total Schools: 312

Scope of Work: Supply of student furniture, primarily dual desks, to improve classroom seating arrangements and create a comfortable learning environment. The furniture is designed to be durable and ergonomically suitable for school students.

S. No.	Description	Qty
1	Dual Desk	100

36. Lab Equipment (Biology)

Total Schools: 179

Scope of Work: Supply, installation, and training for comprehensive Biology lab equipment and teaching aids to support hands-on learning and experimentation. The equipment includes microscopes, anatomical models, specimens, reagents, and charts covering diverse biological topics. Installation will ensure functional lab setup, and training sessions will equip teachers with the knowledge to effectively use the equipment and integrate practical experiments into the curriculum.

Sl. No.	Name of Item	Qty
1	Kit Box	2
2	Compound Microscope	1
3	Glass micro slides	2
4	Pasteur Pipette (Dropper)	2
5	Washing Brush	2
6	Razor Blade	2
7	Micro Test Tubes	2
8	Test tube holder	2
9	Beaker 50 mL.	2
10	Beaker 10 mL.	2
11	Magnifying Lens	2
12	Watch glass	2
13	Needles	2
14	Forceps	2
15	Blotting paper	2
16	Test tube rack	2
17	Wash Bottle	2
18	Surgical Scissor	2
19	Glass rod	2
20	Filter paper	2
21	Measuring Cylinder (10 mL)	2
22	Cotton	2
23	Muslin cloth	2
24	Painting brush	2
25	Spring balance	2
26	Measuring Pan with Holder	2
27	Laboratory Stand Assembly	2
28	Steel rod Clamp Boss Head	2
29	Assembly Boiling tube with cork fitted glass tube	2
30	Tripod	2
31	SPIRIT LAMP	2
32	Test tube 20mL	2
33	W- Tube	2

101

34	Thread	2
35	Petridish	2
36	Cover glasses	2
37	Thermometer (F0)	4
38	pH Paper (Acid & Base Both) (2 to 11)	4
39	Sieve Set	2
40	Reagent Stand	2
41	Light Binocular Microscope	2
42	T.S. Blastula Mammalian	4
43	Leech	4
44	Prawn	4
45	Octopus	4
46	T.S. Testes of Grasshoppers	4
47	T.S. Testes of Mice	4
48	T.S. Ovary of Grasshoppers	4
49	T.S. Ovary of Mice	4
50	T.S. Blastula Mammalian	4
51	Different Stages of Mitosis & Meiosis Slide	4
52	Blood Corpuscles	4
53	Skeleton	2
54	Symbiotic association	2
55	Flash card modles	2
56	Brain	2
57	Heart	2
58	Excretory system	2
59	Human Nervous System	2
60	Plants & animal kingdom	2
61	Eye model	2
62	Ear model	2
63	Mendelian chart	2

37. Lab Equipment (Chemistry)

Total Schools: 185

Scope of Work: Supply, installation, and training for comprehensive Chemistry lab equipment and consumables to support practical experiments and concept understanding in chemistry. The lab setup includes molecular models, glassware, reagents, instruments, and educational charts. Proper installation and setup will ensure functional lab spaces, and training sessions will prepare teachers for effective usage and student experimentation.

Sl. No.	Name of Item	Qty
1	Micro Test Tube	2
2	Test Tube Holder	2
3	Test Tube Stand	2
4	Dropper with Rubber Bulb	2
5	Glass Rod and Stirring	2
6	Spatula	2
7	Beaker (10 mL)	2
8	Funnel	2
9	Dry Cell Holder	2
10	Torch Bulb with Holder	2
11	Beaker (50 mL)	2

12	Measuring Cylinder (10 mL)	2
13	W- Tube	2
14	Tripod	2
15	Spirit Lamp	2
16	Laboratory Stand	2
17	Litmus Paper	2
18	Watch Glass	2
19	China Dish	2
20	Magnet	2
21	Thermometer (Laboratory)	2
22	pH Paper	2
23	Metals (Zn, Cu, Fe,	2
24	Emery Paper and Sand paper	2
25	Iron Nails	2
26	Fe- Filings and Zn dust	2
27	Filter paper	2
28	Micro Test Tube Brush	2
29	Dispensing Bottle	2
30	Vials	2
31	Double mouthed flask	2
32	Measuring Cylinder	2
33	PIPETTE 25ML (BOROSILICATE)	2
34	MEASURING CYLINDER 200ML	20
35	REAGENT BOTTLE 500ML	20
36	CHROMATOGRAPHY PAPER	2
37	CHROMATOGRAPHY CHAMBER	10
38	MORTAR & PESTLE	4
39	BUNSON BURNER/SPRITE LAMP	10
40	SPRITE	1LTR
41	TEST TUBE (BOROSILICATE)	200
42	TOUNGE	20
43	CHEMICAL BALANCE (ELECTRONIC)	2
44	CONICAL FLASK 250ML	2
45	IGNITION TUBE	2
46	PH CHART	2
47	BURRETE 100ML (BOROSILICATE) WITH GLASS STOPPER	10
48	THERMOSTATE	4
49	DROPPER	20
50	dil- Hydrochloric acid	500ML
51	conc- Hydrochloric acid	500ML
52	dil- Sulphuric acid	500ML
53	conc- Sulphuric acid	500ML
54	dil- Nitric acid	500ML
55	conc- Nitric acid	500ML
56	Acetic acid	500ML
57	Oxalic acid	500 G
58	Sodium hydroxide	500 G
59	Ammonium hydroxide	500ML
60	Potassium hydroxide	500 G
61	Ammonium acetate	500 G
62	Ammonium chloride	500 G
63	Ammonium carbonate	500 G
64	Ammonium molybdate	25G
65	Ammonium oxalate	500G
66	Ammonium sulphate	500G
67	Barium chloride	500G
68	Bromine water	500ML
69	Chlorine water	500ML

70	Copper sulphate	250GM
71	Dimethyl glyoxime	50GM
72	Disodium hydrogen phosphate	500GM
73	Ferric chloride	500GM
74	Iodine solution	125ML
75	Lead acetate	250GM
76	Lime water	500ML
77	Litmus solution (blue)	125ML
78	Litmus solution (red)	125ML
79	Methyl orange	500ML
80	Potassium chromate	250ML
81	Potassium dichromate	500ML
82	Potassium ferrocyanide	250GM
83	Potassium iodide	100ML
84	Potassium permanganate	250GM
85	Potassium thiocyanate	125ML
86	Phenolphthalein	125ML
87	Silver nitrate	125ML
88	Starch solution	125ML
89	Sodium carbonate	500GM
90	Sodium bicarbonate	500GM
91	Sodium nitropruside	50GM
92	Zinc dust	100GM
93	Copper turning	100GM
94	Ferrous sulphate	500GM
95	Nessler's reagent	100ML
96	Potassium nitrate	500GM
97	Calcium carbide	100GM
98	Ethanol	250ML
99	Ferric chloride	500GM
100	Sodium hydrogen carbonate	500GM
101	Sodium nitrate	120GM
102	β - Naphthol	50GM
10	Ceric ammonium nitrate	50GM
104	2,4-DNP reagent	50GM
105	Fehling's solution A	500ML
106	Fehling's solution B	250ML
107	Schiff's reagent	125ML
108	Acetone	500ML
109	Tollen's reagent	75ML
110	Molisch's reagent	125ML
111	Iodine solution	250ML
112	Glucose	250ML
113	α - Naphthol	50GM
114	Benedict's solution	500ML
115	Starch solution	125ML

38. Lab Equipment (Physics)

Total Schools: 190

Scope of Work: Supply, installation, and training for comprehensive Physics lab equipment designed to facilitate hands-on experimentation and conceptual understanding of physical phenomena. The equipment includes models, apparatus, measuring instruments, and teaching aids covering various physics topics such as mechanics, optics, electricity, magnetism, and

thermodynamics. Installation ensures a functional lab setup, and training prepares teachers for effective lab utilization.

Sl. No.	Physics Tools	QTY
1	Cone Run Uphill	2
2	Wave Dynamic Model	1
3	Reflection Physics Kit	1
4	Play with colour shadow	1
5	Newton Cradle	1
6	Fleming Left Hand Rule	1
7	Fleming Right Hand Rule	1
8	Hydro Dynamics	2
9	Newton's 2nd Law	1
10	Induced Current	1
11	Demagnetizing and Magnetizing Coil	1
12	Electric Bell	1
13	Visual Illusion	1
14	Electric Motor	1
15	Ampere Law	1
16	Battery eliminator	1
17	Ohm's law apparatus	1
18	PN Junction Apparatus	1
19	Newton's coloured disc	1
20	Parallelogram apparatus	1
21	Resonance Apparatus	1
22	Spring Constant	2
23	Resistance box 500 ohm	2
24	Rheostat 12"	2
25	Vernier Callipers	2
26	Screw Gauge	2
27	Spheres set of 6	2
28	Prism	2
29	Half meter scales	5
30	Meter scales	5
31	Galvanometer	2
32	Voltmeter	2
33	Ammeter	2
34	Plug keys 1 Way	2
35	Plug keys 2 way	2
36	Concave lens	5
37	Convex lens	5
38	Concave mirror	5
39	Convex mirror	5
40	Plane mirror	5
41	Glass slab	2
42	Magnet kit	1
43	Commutators	1

112

44	Drawing board	1
45	Slotted weight	2
46	V - stand (lens holder)	2
47	Plano convex lens	1
48	Semi-circular glass slab	2
49	Lens holder	4
50	Periscope	1
51	Kaleidoscope	2
52	Clamps	5
53	Electric Generator Model	1
54	Magnetic compass big	2
55	Copper wire 24 gauge	10m
56	Iron fillings powder	1
57	Series combination of resistors (set)	1
58	Parallel combination of resistors (set)	1
59	Multimeters	1
60	Copper plate (electroplating)	1
61	Calorimeter	2
62	Clinical thermometer	2
63	Celsius thermometer	1
64	Helical Spring (Slinky)	2
65	Tuning Fork (Box)	1
66	Gold leaf electroscope	1
67	AC DC Dynamo	1
68	Inclined plane	2
69	Battery holders	2
70	Overflow jar	10
71	Electric switches	250g
72	Spring balance	1
73	Optical Fibre Model	1
74	Electronic weighing machine	1
75	Spirit lamp	1
76	Lactometer	1
77	Pascals law apparatus	4
78	Cells 1.5 v	4
79	Cells 9V	6
80	Rechargeable Cells	1
81	Human eye model	1
82	Lattice crystal structure of NaCl	2
83	Rectangular glass plates	2
84	Cylinders (for vernier callipers)	1
85	Weighing box (physical balance)	4
86	Split cork	1
87	Cotton thread	2
88	Stop watches	5
89	Quill tubes	1
90	Strong Thread (nylon)	4

16

91	Thin mirror strip (Concurrent forces)	1
92	Specific gravity bottle (50ML)	2
93	Capillary Tubes (surface tension)	1
94	Spirit level	4
95	Cork to hold capillary tube	1
96	Drawing pins (boxes)	2
97	Rubber Hammers	1
98	Connecting Wires	1
99	High Resistance	1
100	Meter Bridge Set	2
101	Transistor Set	1
103	Right-Hand and Left-Hand Rules	1
104	Electromagnetic Spectrum	1
105	Friction: Types and Examples	1
106	Circular Motion	1
107	Calendar of scientist	1
108	Dispersion of Light (Prism)	1
109	Human Eye and Defects of Vision	1
110	Vector and Scalar Quantities	1
111	Magnetic Field Lines Around Bar Magnet Bar Magnet	1

39. Science Lab establishment with all equipment's (Physics)

Total Schools: 599 schools,

Scope of Work: Supply, installation, and training for fully equipped Physics labs to facilitate hands-on practical learning and experimentation. The lab will be furnished models, apparatus, measuring instruments, and teaching aids covering various physics topics such as mechanics, optics, electricity, magnetism, and thermodynamics aligned with the curriculum.

SI	Item Name	Qty	Unit
1	Modular Island Workbench	2	SET
2	Laboratory Stool	15	Pcs
3	Equipment as per Section 43	1	

40. Science Lab establishment with all equipment's (Chemistry)

Total Schools: 604

Scope of Work: Supply, installation, and training for fully equipped Chemistry labs to facilitate hands-on practical learning and experimentation. The lab will be furnished with molecular models, glassware, reagents, teaching charts, furniture, and scientific instruments, ensuring a comprehensive learning environment aligned with the curriculum.

SI	Item Name	Qty	Unit
1	Modular Island Workbench	2	SET
2	Supply and installation of wash basin	2	SET
3	Laboratory Stool	10	Pcs

4	Equipment as per section 42	1	
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41. Science Lab establishment with all equipment (Biology)

Total Schools: 610

Scope of Work: Supply, installation, and training for fully equipped **Biology labs** to facilitate practical learning and experimentation aligned with the curriculum. The lab includes microscopes, anatomical models, biological specimens, reagents, charts, scientific instruments, furniture, and other teaching aids, providing a comprehensive hands-on biology learning environment.

Sl	Item Name	Qty	Unit
1	Modular Island Workbench	2	SET
2	Laboratory Stool	15	Pcs
3	Equipment as per section 41	1	

42. Dedicated furniture for library

Total Schools: 485

Scope of Work: Supply of library furniture to create a functional and comfortable reading and study environment. The furniture includes computer tables and chairs with adequate charging points to support digital access and enhance the utility of library spaces.

Sr. No.	ITEM	Qty
1	Computer table	10
2	Chair	20
3	Book Shelves	1
4	Storage Unit	2
5	News paper Table	2

43. Colorful sorting dustbins

Total Schools: 789

Scope of Work: Supply of **colourful sorting dustbins painted with engaging characters** to promote effective waste segregation and environmental awareness among students. The dustbins are designed to encourage proper disposal habits through visually appealing and educational designs.

Sr. No.	Item	Quantity per School
1	Colorful Sorting Dustbins (painted in interesting characters for waste segregation)	10

44. Sanitary Pads

Total no of Girl child: 3,25,758.

Scope of Work: Provision of **sanitary pads** to support menstrual hygiene management among schoolgirls. Each eligible student will receive a supply of sanitary pads to promote health, hygiene, and continued attendance during menstruation.

Handwritten signature/initials

Sr. No.	Item	Quantity per Student
1	Sanitary Pads	Total 12 packs in a year. Each pack of 5 pads.

45. Computer Instructor

- The Bidder/Agency will have to deploy 1 Computer instructor per schools deployed in 789 schools.

46. Vocational trainers

- The Bidder/Agency will have to deploy Vocational trainer in the ratio of 1:5, one vocational trainer shall monitor 5 schools.
- Total no of 158 Vocational trainers are to be deployed.
- Vocational trainer should cover the allotted schools minimum 2 times in the week.

47. Vocational Teachers

- The Bidder/Agency will have to deploy 2 Vocational teacher per school for the respective trades deployed in 789 schools.

48. Inventory Management System

Total Schools: 789

Scope of work: Supply & Installation of inventory management software in 789 schools.

49. Distribution tracking software

Total Schools: 789

Scope of work: This scope of work is for design & development of an application for tracking and tracing the path of batches of shipment from the headquarters/State Level to the various districts and across the complete value chain up until the school level.

12

Annexure 1B

Detailed Technical Specifications

INDEX

Sl.	Activity Master Detail Name	No. of Schools	Physical Quantity
1	Student Assessment	789	789
2	Vocational Tools & Equipment	789	789
3	Vocational -Raw material grant for new school per course (New)	789	789
4	Vocational Trainers - Resource Persons (New)	789	789
5	Vocational Teachers (2 teachers per schools - 2 trades)	789	1578
6	Vocational -Cost of providing hands-on Skill Training to Students (New)	789	789
7	Math Circles	789	24979
8	Maths Kit	789	789
9	Science Circles	789	24979
10	Science Kit	789	789
11	Sports Equipment	789	789
12	Development of Play Ground / Outdoor / Indoor Sports Game Facilities	789	789
13	Digital Software / Hardware / ICT /Smart Classroom / Computer Lab	789	789
14	Language Lab	789	789
15	Computer Instructor	789	789
16	Musical Instrument	789	789
17	Outdoor Science Park (NR)	38	38
18	Band Uniform	789	789
19	Band set	789	789
20	Smart Board with Interactive Learning Panel	789	789
21	Black Boards/ Green Boards	789	789
22	Enhancement of School Aesthetics	789	789
23	Teacher ID card	789	11784
24	Identity Cards for Student	789	624444
25	CCTV Cameras	789	789
26	Olympiad for Class VI to XII	789	789

27	Social Science Kit	789	789
28	Financial Literacy	789	789
29	First Aid Kit	789	789
30	School Magazine	789	789
31	PM SHRI Selfie Point	789	789
32	Health Devices	789	789
33	Developing Innovation Culture and Entrepreneurship (DICE)	789	789
34	Gamified Learning	789	789
35	Drone Training	789	789
36	Mentorship Programme	789	789
37	Science and Math Curiosity Programme	789	789
38	Furniture for Students	312	312
39	Lab Equipment (Biology)	179	179
40	Lab Equipment (Chemistry)	185	185
41	Lab Equipment (Physics)	190	190
42	Science Lab Establishment with All Equipment (Physics)	599	599
43	Science Lab Establishment with All Equipment (Chemistry)	604	604
44	Science Lab Establishment with All Equipment (Biology)	610	610
45	Dedicated furniture for library	485	485
46	Colourful sorting dustbins painted in interesting characters for waste segregation	789	789
47	Sanitary Pads	789	325758
48	Inventory Management System		
49	Distribution Tracking software		

Detailed Technical Specification

1. Student Assessment

Scope of work: Supply, Installation and Maintain Student Assessment Software should be done in 789 schools as per following specifications.

Detailed Specifications:

- Admin/School Portal
- Configure/Manage Masters
- View Dashboard for Schools Analytics
- Teacher Portal
- Create Assignments
- Assign Assignments to Students
- Assessment Creation
- Preview Assessment
- Online Course Material Upload
- Profile Management
- View Student Activity Reports
- Individual Student Portal
- Profile Management
- View Assignments
- Access to online course materials
- Attempt Assessment/Assignments
- View Scorecard
- View Subjects Content/Videos
- School Management
- Teachers Management
- Teachers Import
- Transfer
- Teacher Subject Mapping
- Student Management
- Students Import
- Subject Mapping
- Add Class/Section/Subjects to school.
- Add Chapters/Topics in Subject
- Assessment/Assignments Creation
- Questions Creation Subject/Chapter/Topic wise

Details:

Overview: A web-based and Android based platform should be designed to facilitate the creation, delivery, and evaluation of online assignments, assessments for Schools institutions. The primary goal of the portal should be to provide a user-friendly and efficient solution for conducting various types of assessments, such as quizzes, exams, and skill-based tests, online course material for the students. Proposed solution should have following key Features.

Key Features and Functionality:

User Management:

a. Admin Panel:

Create an intuitive and feature-rich admin dashboard for managing user accounts, roles, and permissions.

Configure and manage master's to be used in the school.

Enable administrators to view and export user data, assessment results, and reports.

b. Teacher Portal:

Create and manage assessment content, assessment evaluation, view results, and generate reports.

Provide Teacher's with a user-friendly dashboard to manage assessments.

Allow teachers to create, edit, and delete assessment content, including various question types.

Enable the uploading of multimedia elements for questions and answers.

Implement options for randomizing questions and answer choices to minimize cheating.

c. Student Portal:

Students can access assessments, view their scores, and track their progress.

Enable students to create accounts or sign in securely.

Students can have access to online course material uploaded by the teachers.

Allow students to view available assessments.

Include progress tracking for students to monitor their performance.

Assessment Creation:

Question Bank: A repository to store and organize various types of questions (multiple-choice, short answer, essay, etc.).

Implement support for different assessment types (multiple-choice, true/false, short answer, essay, etc.).

Media Support: Allow the inclusion of multimedia elements (images, videos, audio) in questions.
 Include options for setting time limits, pass marks, etc
 Provide real-time previews of assessments before publishing.
 Assessment Delivery: Online Testing: Students can take assessments online, either in real-time or within a specified time frame.

Result Analysis and Reporting:

Instant Results: Students receive immediate feedback on completion of the assessment.
 Detailed Reports: Teachers and administrators can access comprehensive reports with individual and group performance analysis.
 Analytics: visual representations (charts, graphs) to present data trends and insights.
 Bidder should submit the reports of each school every week to BEPC. Bidder should share the data storage access to Department and same should not be used for any other purpose without consent. Bidder should not have any data backups in view of sensitivity. Bidder should provide the APIs and customization support to department. Solution Layout should be approved from BEPC.

2. Vocational Tools & Equipment

Scope of work: Supply, installation, and commissioning of vocational tools and equipment for any of the 2 trades in each school in 789 schools, along with comprehensive training for teachers and students. The training should focus on the effective use of tools, safety procedures, and basic skills related to the trade. This initiative is designed to help students gain practical knowledge and prepare for real-world job roles. Hands-on training sessions should be conducted by experts to ensure that teachers and students are confident in using the equipment. Training materials and manuals should also be provided for continued learning classroom integration.

Note :

- Every items/material should be ISI mark (Wherever applicable).
- Bidder needs to submit for every tool, equipment, kit etc., a relevant BIS certification (Wherever applicable) to get Standardised products.
- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

Trade List:

S. No.	Trade
i.	Agriculture
ii.	Automotive
iii.	Apparel

iv.	Electronics
v.	Healthcare
vi.	Tourism
vii.	Telecom

i. Agriculture:

This multi-role training covers milk storage and quality testing, use of agricultural tools, pump set operation, and sprinkler irrigation systems. Learners also gain expertise in crop and weed management, pesticide application, and post-harvest processing, aligning with the needs of sustainable agriculture and rural livelihoods.

List of Equipment		
S.No	Equipment Description	Qty
1	Cream Separator (20 LPH, 5L tank or higher)	1
2	Mini Pasteurizer (5L or higher)	1
3	Stainless Steel Milk Can (5L or higher)	4
4	pH Meter	1
5	Lactometer Set	1
6	Digital Weighing Scale (5–10kg)	1
7	Record Keeping Register	1 set
8	Centrifugal Pump (Demo Unit)	1
9	Submersible Pump (Demo Unit)	1
10	Tool Kit (Spanners, Pliers, Screwdrivers, Grease Gun + Oil)	2 sets
11	Pressure Gauge (Analog)	2
12	Testing Equipment: Multimeter, Clamp Meter, Megger	2 sets
13	Bearing Puller Set	1
14	Workbench with Vice	1
15	Drip & Sprinkler Units (Demo Setup)	1 set
16	Safety Gear (Gloves, Goggles, Apron) – Irrigation	1 set
17	Gardening Tools (Hand pruners, khurpis, hoes, rakes, trowels)	15 mixed
18	Nursery Supplies (Seedling trays, potting mix, polybags)	25
19	Watering Equipment (Cans & Sprayers – 5 each)	10
20	Compost Bins (Plastic, for organic waste)	2
21	Safety Gear – Gardening	5 sets
22	Spray Pump – 5L	2
23	Organic Fertilizer Pack – 5Kg	2
24	Shade Net – 20x30 Mtr	1

Note :

- Every items/material should be ISI mark (Wherever applicable).
- Bidder needs to submit for every tool, equipment, kit etc., a relevant BIS certification (Wherever applicable) to get Standardised products.
- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

ii. Automotive:

Lab should equip students with practical skills in vehicle maintenance and repair using automotive tools, diagnostic equipment, and engine models for hands-on learning in automobile technology and servicing.

Sl. No.	Tools & Equipment	Specification	Qty
1	Air Compressor	Type of Air Compressor Positive displacement - Reciprocating Piston Type Duty Cycle Intermittent, Tank Mounted Single Stage for compression. Air Cooled Cooling System Oil Lubricated Lubrication Type Rated Discharge Pressure (kg/cm ²) 7.0 to 7.9 "Maximum Working Pressure " 8 bar	1
2	Bench Vice	Material And Dimensional Parameters -: Material of Body for Bench Vice -Steel cast Material of Movable jaw- Steel cast Material of Swivel base plates- Steel cast Material for Jaw plates- Tool steel Material for Screw spindle and handle- Steel Material for Spindle nut- Grey cast iron Nominal size of bench vice in mm- (width of the jaw) (tolerance of ± 2 percent) 125 Minimum mass of Fixed base bench vices- (in kg) 15 Minimum mass of Swivel base bench vices -(in kg) NA for Fixed base bench vice The hardness of the jaw plates- (in HV) (445 HV to 596 HV Fixed base bench vice The hardness of the jaw plates- (in HV) (445 HV to 596 HV	1
3	Bench Grinder	Wheel Size - 8X3/4Inch Height - 150 inch Width - 30 inch, Body Material - Cast Iron Disc Diameter - 9 inch Length - 50 inch Warranty - 3 year Weight - 30 kilogram Double Ended, Surface Finish - Color Coated.	1
4	Oil Draining& Filling Equipment	Material of Oil Can - Mild Steel, Material of Nozzle - Stainless Steel, Capacity of Oil Can - 500 ML Length of Spout - 50MM Outer Diameter of Spout Tip - 2MM, Inner Diameter of Spout Tip - 2MM, Diameter of Filling Hole - 2MM	3
5	Multi meter	Style - Digital Colour- Blue Item Weight - 13.8 Grams Item Dimensions LxWxH - 6.9 x 3.1 x 13.8 Centimeters Must include Instruction Manual, 1 Set test leads Measurement	3

M

		Accuracy $\pm 0.8\%$ rdgs (DC Volt), $\pm 1.2\%$ rdgs (AC Volt) Measurement Type – Multimeter Number of Items – 1	
6	Hydro Meter	Package Dimensions - 30.41 x 9.9 x 7.9 cm Item Weight - 250-270 g	2
7	White Board	Material of Board Ceramic Steel Material of Frame Anodized extruded Aluminium alloy hollow section of designation conforming to IS: 1285 Material of Back Cover Galvanized steel sheets conforming to IS:277 Thickness and Material of back support (conforming to IS:12406) 9 millimetre, Writing cum projection screen board, Material of the frame - Anodized extruded Aluminium alloy, Length - feet3 Width - feet 2 material - Alluminium Alloy	1
8	AC Clamp Meter	Power Source - Battery Powered Style – Digital, Item Weight - 1 Kilograms Item Dimensions LxWxH - 20 x 12 x 5 Centimeters Measurement Type – Ammeter , Multimeter	3
9	Coolant Tester	Product Dimensions 2.54 x 25.4 x 14.73 cm; Item Weight 90 g,Antifreeze and Coolant Tester Hydrometer	3
10	Battery & Charging System Tester	Item Dimensions LxWxH : 32 x 8 x 8 Centimeters, Must Included : 1 x 12V Car Battery Alternator	1
11	Diagnostic tool	Package Dimensions - 12.9 x 11.5 x 3.6 cm; Item Weight Approx. 28 g Colour - Blue Compatible with Torque App Must Include the CD Connection Type: Bluetooth	1
12	Hand Tools	Material -Chrome Vanadium Steel Item Dimensions LxWxH 20 x 10 x 3 Centimeters,Head Style - Hex Finish Type -Nickel Chrome Set contains-: 2 x - 1/2" Spark Plug Sockets: 16MM & 21MM 1 x - 1/2" x5" Extension Bar. 1 x - 1/2" x10" Extension Bar. 1 x - 3 Way Adaptor. 1 x - 1/" Ratchet Handle 6 x - 1/2" (Socket 12PT): 10-12-13-14-16-17MM 19 x -1/2" (Socket 6PT) : 8-9-10-11-12-13-14-15-16-17-18-19-21-22-24-27-32MM	1
13	Pneumatic Tools	Torque (Nm) - Approx. 408 Weight - Approx. 4.53 kilogram, Free Speed (rpm) - Approx. 6.5 Torque (Nm) - Approx. 1669 Single trigger for both forward and reverse operation, Heavy duty gear box with thrust bearing for low friction and longer operational life, Low noise level with no vibration, Accessories	1

		like universal socket, universal joint and thin wall sockets available Square Drive Size in inch- 3/4 Diameter -66 millimeter, Height- 200 millimeter	
15	Torque Wrenches	Item Weight : 475 g Net Quantity : 1.00 count	5
16	Fender covers/kits	Water Proof Long Lasting Colour -Black	5
17	Floor Mats	Colour- Grey Material -Ethylene Vinyl Acetate Size-Approx. 45cm x 500cm Pattern -Diamond Number of Pieces 1 Stain Resistant.	5
18	Cotton Gloves	Size-Small Width across palm - 10 cm for small Overall Length - 24 cm for small Depth of Cuff - 6 cm for small Total No of Wales - 68 for small	8
19	Hard Toed Boots	Oil resistant Varieties of industrial protective rubber boots: Variety 1 (Industrial protective rubber knee boots.)	3
20	Sun Glasses	GOGGLE LENS Filter – 2- 1.2 UV according to EN 170, Impact Resistance: Designed to withstand energy impact of 120 m/s on the frame Maximum Weight of Chemical Splash Proof Goggle 100 grams	2
21	Metal Peg Display Board	"Basematerial: Fibreboard, Acrylic paint Metal parts: Steel, Powder coating" Steel, Epoxy/polyester powder coating Container: PET plastic No of Hook 10 Base Material Fireboard Metal parts Steel Width: 56 cm (22 ") Depth: 12 cm (4 ¾ ") Height: 56 cm (22 ")	2
22	Spark plugs	Spark plug sockets 67 mm drive size 16/21 mm Core Material Iridium Gap Size 0.9 Millimeters Top Material Type Alloy Steel Vehicle Service Type Motorcycle	2
23	Multi-meter	Digital multimeter having a plastic body with a LCD display system, with DC voltage of 200mV/600 and resistance: 200 ohm/ 2000k ohm. 80BK Temperature Probe Installed 9V battery Test leads with 4mm lantern tips Resistance to 50 MΩ; capacitance to 10,000 μF, frequency to 100 kHz; temperature from -40 °C to 400 °C, Dimensions 43 x 90 x 185 mm, Weight 300gm	3
24	Ruler	Steel ruler for measurement Length 300 mm Material Stainless steel Surface Rust resist finish Thicknes 0.5- 2 mm	2
25	Gloves	Nylon anti cut safety hand glove Material Nylon Color Green, White & Grey etc. Usage/Application Industrial Categories Safety Gloves Feature Cut Resistant Finger Type Full Fingered Size/Dimension S, M, L, Free Size	8

		Gender Unisex Packaging Size 1 pair per packet Weight 30 gm	
26	Ear plugs	Reusable corded ear plug beneficial for giving total protection to ears from high pitch noise and sound MATERIAL Polyurethane foam COLOR Orange NRR 32 dB CORD TYPE Uncorded STYLE Disposable SHAPE Tapered SIZE One size fits most PACKAGING 1 pair per poly bag; 10 pair per dispenser box; 10 boxes per case CASE 28.6" x 11.7" x 10.3" / 72.7cm x 29.7cm x 26.1cm CASE WEIGHT 12.2 lbs / 2.5 kg	2
27	Puncture tool Kit	Type Universal Tubeless Tire Repair Kit Usage Emergency Flat Tire Repair Patch Puncture Kit Tool Bag for Car, Bike Kit Contains Reamer, Probe, Rubber Solution, 10 Puncture Repair Strips, Cutter, Storage Bag (2x Needle Tool Bits for Lifetime Reliability)	2
28	Nose Plier	Usage Industrial, Garage/Workshop Material Alloy Steel Colour Red/ Blue/ Green Length 6 inch Handle Material Plastic, Steel Type Long Nose Plier Specific Uses For Product Hold, Holding, Twisting, Cutting, Electrical, Bending Size-6 inch	2
29	Bump Caps	Ventilation Holes On Both The Sides Inside Harness of two Section PE Cradle Head Band Incorporating an adjustable Nape Strap with PU Sweat Band Material - Plastic Colour White	3
30	Air Tester	Material - Plastic Gauge Calibration - 10- 160 Hose Length - 20 inch	1
31	Hydraulic Jacks	Availability of Type Test Report for conformity of parameters from any ILAC/NABL accredited/Central Gov. LAB . Include the Test certificate. Warranty (Years) 1 Lifting Capacity (min.) - (Ton) 10, Working Pressure- (bar) 700- 750 Lifting Stroke- (mm) 300	1
32	Vehicle safety stands	Product Dimensions - 12 x 16 x 14 cm Material - Plastic Colour - Red & white	3
33	Parts washing station car	Power Source - Corded Electric Colour - Yellow Item Dimensions LxWxH - 25 x 28 x 42 Centimeters Maximum Pressure - 130 Bars Hose Length - 5 Metres Tank Volume - 16 Litres warranty - 1year	1
34	Pullar	Package Dimensions - 20 x 10 x 3 cm; 490 Grams Item Weight - Approx.490 g High carbon steel reversible legs and body	1

		Hex head forcing screws For use with ratchet or spanner Use for removing wheel bearings, hubs, gear pulleys	
35	Sliding Hammer	Package Dimensions : 15 x 10 x 5 cm Item Weight 300 grams	2
36	Oil Can	Use For StorageLubricating Oil Can Color Red Size 200 - 250 ML Shape, Round "Product Dimensions "x 12 x 10 cm Type 15 Pump Operated, Pressed Steel Oil Can	2
37	General Hand Tool	Product Dimensions: 28 x 4.5 x 25.3 cm; Item Weight: Approx. 2 kg 470 g	3

Note :

- Every items/material should be ISI mark (Wherever applicable).
- Bidder needs to submit for every tool, equipment, kit etc., a relevant BIS certification (Wherever applicable) to get Standardised products.
- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

iii.Apparel: -

Lab should equip students with practical skills in garment design and stitching using industrial sewing machines, cutting tools, and tailoring accessories for hands-on learning in fashion and apparel production.

Proposed Minimum Equipment:

Self Employed Tailor and Assistant Designer- Fashion, Home and Made-ups – Self Employed Tailor and Assistant Designer- Fashion, Home and Made-ups

Sl	Description	Quantity
	Sewing Equipment: Manual Sewing Machines- Flat bed zig zag machine, Snap on pressure foot, 9 stitch functions, Single touch reverse stitch, Auto tripping bobbin winder, 2 dials for pattern selector & stitch length control, Open type shuttle, Maximum zig-zag width – 5 mm, Maximum stitch length – 4 mm	2
	Tools: Fabric scissors, rotary cutters, measuring tapes	5
	Draft Materials: Pattern paper rolls, rulers, French curves	5 of each
	Textile Samples: Cotton, silk, denim, synthetic swatches- 20 Mtr Each	2 set
	Safety Gear	5 set

101

	Other Accessories: Thread cones, zippers, buttons, setup tools etc	10 set
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Apparel – Specialised Sewing Machine Operator

Sl. No.	Description	Quantity
1	Advanced Sewing Machines: Overlock machine	2
2	Advanced Sewing Machines: Flatlock machine	5
3	Tools: Fabric scissors, rotary cutters, measuring tapes	
3	Draft Materials: Pattern paper rolls, rulers, French curves	5 of each
4	Textile Samples: Cotton, silk, denim, synthetic swatches- 20 Mtr Each	2 sets
5	Safety Gear	5 Set
6	Sewing Machine Accessories Tool Kit	4 sets

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iv. Electronics:-

The lab should train students in basic electrical and electronic skills through hands-on use of meters, tools, circuits, and appliances, enabling them to work safely with wiring, repairs, and system installations.

Electronics & HW: Solar Panel Installation Technician and Field Technician - Wireman Control Panel.

Proposed Minimum Equipment:

S.No	Equipment	Quantity
1	Solar Panels: each 500 Watt or above	2
2	Inverter: 1 KW with Battery	1
3	Solar Related Accessories and installation Set	1
4	Battery Terminal Connectors	4 Sets
5	Multimeter	3
6	PVC Insulated Cable 2.5 sq mm (Red & Black – 90m each)	2 rolls
7	PVC Insulated Copper Wire- 1.5 Sqmm RBG – rolls of 100 mtrs	3 rools
8	Switches and Sockets (6A and 16Amp)	12
9	Bulb Holders	3
10	MCBs (6A/16A Single Pole)	5/5
11	MCB Distribution Box with MCB	1
12	Safety Gloves	10 Sets
13	Tool Set	2

Electronics & HW: Assistant Installation Technician – Computing & peripherals

Proposed Minimum Equipment:

S.No	Equipment	Quantity
1	Laptop: 14” or above, i3 Processor, 8GB RAM, 256 GB Storage, Preloaded Windows Home.	1
2	Printer: Laser Jet, Integrated Toner and cartridge, Wi-Fi	1
3	Wi-Fi Router: Dual Band, 5 dBi Antenna	1
4	Mobile Phone: : 6 inches display, 4G LTE or above, 4GB RAM and 64GB Memory, 8MP + 5MP camera, OS: android/IOS, USB-C	3
5	Tablet: 8.7 inches display, 4G LTE or above, 4GB RAM and 64GB Memory, 8MP + 5MP camera, OS: android/IOS, USB-C	2
6	Smart Wearables (Glasses/Smartwatches) Assembling and Repair	5
7	Portable Electronics- 60W Speakers	3
8	Mobile Repair Setup with Tools	1
9	Hardware Assembler Bench with Subsystems of and Product Manuals	1
10	Assembling Equipment along with necessary accessories	1 set
11	Computer Software Installation- Microsoft Windows Home/SL, Office A3/A1 with Microsoft Authorization (5 Users) , Antivirus Installation	1 set
12	Network Tools with Equipment	2 Set

Electronics & Hardware : Field Technician (Air Conditioner & Home Appliances)

Proposed Minimum Equipment:

S.No	Equipment	Quantity
1	AC: 1 Ton	1
2	Refrigerator: Capacity 205 Ltr, Refrigerant R600A, 20L Vegetable Tray Puff Insulation Thickness 75mm to 80mm Hygiene + Invertor technology; Advanced Capillary Technology	1
3	Smart TV-32" Inch or above with Sound System	1
4	Washing Machine-Semi Automatic 11 Kg or Above	1
3	Installation, Repair tools and Accessories	1 Set

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v. Healthcare:-

It should prepare students to support basic patient care and first aid by providing training with medical instruments, diagnostic tools, and hygiene equipment used in real healthcare settings.

Sl. No.	Tool & Equipment	Specification	Qty
1	AED Trainer With Adult Pad	OEM Product, To Safely Simulate Shock Delivered By AED, To Be Pre- Configured With 10 Realistic Scenarios Training Scenarios With Audible Messages And Batteries Function : Simulate The Operation Of The Clinical Aed, Feature : With Separate Program/Voice Card, Power Supply : DC 4.5v/3* AA Battery, Size : 155 x130 x 45 mm, Certification : CE ,Comprises of Manikin(S) and Accessories Necessary For Conducting Para Medical Trainings, Best Compression Depth, Cpr Training, Combined Cpr and Airway Training	2
2	Air Cushion	Standard OEM Product Rubberized Air Pillows Size: 61 X 35.6 X 10.2 cm.	2

3	Airway Mannequins	<p>Standard OEM Product, Should Be Suitable For -</p> <ul style="list-style-type: none"> • Practicing of Oral And Nasal Intubation • Practicing Use Of Lma (Laryngeal Mask Airway) • Correct Tube Placement Can Be Checked By Practical Inflation Test • Realistic Anatomical Features Allow Demonstration of Sellick Manoeuvre And Laryngospasm • Bag-Valve-Mask Ventilation Can Be Practiced • Stomach Inflation And Vomiting Situation Can Be Simulated • Provides Visual Inspection of Lung Expansion • Provides Auscultation of Breath Sounds Full Body <p>Manikin Type, Comprises of Manikin(S) And Accessories Necessary For Conducting Para Medical Trainings, Airway Hygiene System</p>	2
4	Ambu Mask	<p>Standard Product</p> <ul style="list-style-type: none"> • Silicone Adult 1600ml resuscitator (W/ Pop-Off 60 cms 20)" • Silicon Mask 5 • 2500 ml Oxygen Reservoir Bag. • Disposal Oxygen Tubing 2 Meter • 1000 Percent Medical Grade Silicone Material. • Latex Free Components • Available In Polysulfide Type. • Autoclavable • The Set To Include Pvc Reservoir Bag, Silicon Mask 5 And Disposable Oxygen Tubing. • 40 cm H2O Pressure Relief Valve • All In One Intake Valve. Self-Filling with Air, Usage for Infant/Child 	4
5	Artery Forceps	<p>Material: Stainless Steel</p> <p>Size (L X W X H) - 10 cm X 12 cm X 2 cm</p> <p>Small Artery Forceps Straight/Curved 4 Inches</p>	5
6	Bed Pan with Cover	<p>Size: L-39.5 cm, W-30.5 cm, H-7cm</p> <p>Material : Stainless Steel Material Stainless Steel, With Cover, Medium Size</p>	1
7	Betadine Solution Bottle	500 Ml Bottle Iodine, Brown Colour, 500 Ml	4
8	Blanket	<p>Size: 180 × 260 Cm Material: Fleece Colour: Single</p> <p>Colour: Navy Blue/ Dark Blue 100% Woollen, Size 230 X 152 Cm,</p>	5

101

9	Blood Concentrate	Standard Product; 120 Ml Bottle	4
10	Cervical Collar (Medium)	Material: Polyester 40%, Pu50%, Nylon10% Length Size: 19 Inches, 15 Inches Soft Collar, Flexible, Weight 250 Grams	1
11	Cleaning Solution	Multipurpose Cleaning Liquid In 500 Ml Bottle with Spray Cleaning Solution	4
12	Clinical Examination Table	<ul style="list-style-type: none"> • Overall Approx. Size 1840 mm Lx575 mm Wx860 mm • Rectangular Tube Frame with Sheet Cabinets • 100 Mm Foam Mattress, • Reversible Rexine Cover • Three Cabinets, One with Lock. 1 Drawer with Lock • Examination Trolley With 3 Trays • Retractable Step Stool & Writing Pad • Pretreated & Powder Coated • With Lockers on All the Doors Material Mattress Platform Is Crea Sheet, Thickness of Leg Pipe 30 mm or more, MS ERW Rectangular Tube With 50 mmx30 mm Or More, Gauge 1.2 mm or more. 	2
13	Comb	Material: High Quality Plastic. Standard Product for Personal Grooming Purpose Material Plastic	5
14	Cotton Roles	250 Grams Roll Thickness 12 mm, Width 25 mm, Weight 200 Grams	4
15	Different Color Plastic Bags (Red, Yellow, Blue, Black) With Dust Bins	Contains: (A)4x Plastic Bags (One of Each Colour - Red, Yellow, Blue and Black) Material - Polypropylene Size - 48 X 58 Cm Type -Biohazard Disposable Bag (B)4x Dustbins Color Red, Blue, Green, Yellow, Black Material - Polypropylene Plastic Size (WxH) - 30x36 cm	1
16	Dissecting Forceps	Available Brand: Regular, Antirust, Antirust-Dx ... Size: 4", 5", 6" / 100 mm, 125 mm, 150 mm 8-Inch Forceps, Stainless Steel, Thickness Blade 1.8 mm, Overall Length 192 mm, Blade Length 25 mm.	3
17	Draw Sheet	Standard OEM Product Material Used Non-Woven · Colour -Medical Blue	2

		<ul style="list-style-type: none"> · Weight: 25 Grams · Size: 200 X 150 cm · Application/Use: For Covering Bed Special Feature: Water Repellent General Surgery Drapes, Size 120 X 150 cm,	
18	Duster	Material: Should Have Acrylic Duster with Removable Sleeve and Pvc Handle Duster, Floor Duster, Cleaning Duster, Size 30 X 30 Cm	2
19	Electronic B.P. Monitoring Machine	It Should Have Display Size 3 Inches Pulse 40 ~ 199 Pulse/Min (Accuracy: $\pm 5\%$) Range: 0 ~ 299 Mm Hg General Features: <ul style="list-style-type: none"> • Large And Clear Lcd Display • 2 X 120 Times Memory • Date/Time Display • Automatically Turn Off • 4 Number Aa Size Battery (1.5v Each) • Cuff Circumference: 22 ~ 32cm Digital, Automatic, Portable, Weight 2000 Grams, Measures 0 To 300 Mmhg 	2
20	Eraser	Non-Dust White Erase Size: 3.5 X 2 X 1 Cm Packing Includes 20 Pieces	15
21	Extension Cord	Six Socket Extension Cord <ul style="list-style-type: none"> • 6 Separate Switches • 3 Core Fuses for Surge Protection • 2-Yard Copper Wire With ISI Marks And Appropriate Compliance to BIS Six Sockets, 3 Pin Type,	2
22	Fire Extinguisher	4 Kgs. ABC Type Isi Certification Standard OEM Product Stainless Steel Cylinder, Co2 Based	1
23	First Aid Metal Box	Size 45x 40x 30 Inches Material: Metal with Epoxy Coating Material ABS/ Tough & Amp; Steel Coloured, Lid Without Hinge Type with Self-Lock, Weight 100 Gram	1
24	Gauze Swabs	Material: Cotton Size: 4x4 Inches Dimension 50 mm,	20
25	Gloves (Disposables)	1 packet x 100 Pieces Material - Nitrile Rubber,	5



		Powder Content - < 2.0 Mg/Dm2 Extractable Protein Level - <200 µg/ Dm2 Sterilization: Nonsterile Disposable Surgical Rubber Gloves) - Pre-Powered	
26	Gloves (Surgical)	1packet x 100 Pieces Material: Natural Rubber Powder Content - < 15 Mg / Dm2 Extractable Protein Level - <200 Micro Gram/ Dm2. Sterilization - Ethylene Oxide / Gamma Irradiated Rubber Gloves / Surgical Gloves, Material Natural Rubber Latex	5
27	Glucometer 30	Automatic Power - 90 Volts •Minimum Blood Sample Needed: 1.5 Microlitre •Measuring Range - 0.6 Mmol/L - 33.3 Mmol/L •Number Of Strips -10 Strips •Number Of Lancets -10 Lancets •Measuring Time -10 Sec •Display Type - LCD •Memory - 350 •10 Sterile Lancets, 1 Log Book, 1active Meter (With 1 Enclosed Battery), 1 Carry Case, 1 Lancing Device, 1 Vial Containing 10 Test Strips And 1 Coding Chip, 1 User Manual, 1 Quick Reference Guide, 2 Information Sheets, 1 Warranty Card Electro Chemical Technology, Device Weight 10 Grams, Single Cell/ Battery, Ranges 30 To 700.	1
28	Goggles	Frameless Polycarbonate Safety Eyewear with Wrap Around Design. •Lenses Are Impact Resistant to Level F. •Lenses Are Optical Class-1. •Scratch-Resistant Coating on Lens. •99.9% UV Protection. • Safety Goggle, As Per Bis Specifications, Material Polycarbonate	1
29	Hair-Cap Packet	1packet*100 Pieces Atlas Disposable Caps Non-Linting Kaycel Fabric with A Polypropylene Top and Straps •Layers: 5-Layers Soft White Sweat Pad Surgeon Cap	1
30	Hospital Bed	Hospital Bed Length: At Least 2000 mm Breadth At Least 900 mm & Height At Least 500 mm	1

		<p>Frame Work Made Of Rectangular MS Tubes Not More Than 18 g Perforated CRC/MS Sheet Top In Four Sections Backrest, Knee Rest, Trendelenburg /Reverse Trendelenburg & Hi-Low Positions Obtained By Separate Screw From Foot End</p> <p>Detachable/Collapsible/Swing Away ABS/SS Safety Side Railings ABS/55 Moulded Head & Foot Bows, Detachable IV Rod With Four Locations Bed Mounted On At- Least 120 mm Dia., Nonrusting, Swivelling Castors, Two With Brakes Pretreated And Powder Coated Mattress Suitable For The Bed Made of At Least 25 mm Thick Soft Density Top Layer And At Least 75mm Thick High Density Bottom Layer For Patient Comfort And Better Pressure Care Width Of Mattress, 900 mm To 920 Mm, Material Surface Is Crca Sheet, MS Erw Rectangular Tube With 50 mm x30 mm Or More, Gauge 1.2 mm Or More.</p>	
31	Kidney Tray (8")	<p>Regular/304 G- SS Sizes, 8"</p> <p>Material: Stainless Steel Stainless Steel, 300 Grams</p>	1
32	Liquid Soap Bottle	<p>Foaming Handwash</p> <p>215 ml Liquid Soap</p>	6
33	Marker	<p>With Replaceable Refill:</p> <p>Tip Size - 2.0 mm Board Marker</p>	15
34	Mask Packet	<p>1packet x 50 Pieces, Face Mask Ear Loop Medical Surgical Dust Face Mask, Bacterial Filtration Efficiency (Bfe) > 98% Conforms to En14683: Type II. Size - 18x9cm, Thickness - 3ply Disposable Mask,</p>	2
35	Micropore	<p>Material Type: Paper , Tape Size 5 Meters</p> <p>1.25 cm X 5 Meter, 24 Pcs In A Box Micropore, Hold a Bandage or Other Dressing onto A Wound, 2 Inches</p>	1
36	Nebulizer / Mesh Nebulizer	<p>Adult/Kid Compressor Nebulizer For Inhalation Therapy</p> <p>Operating Air Flow Rate: 4.0 L/Min</p> <p>Mmad (Micro M): 2-6 µm</p> <p>Medication Capacity (Ml):6 Ml</p> <p>Average Nebulization Rate (Ml/Min): 0.25 Ml/Min</p> <p>Particle Size (Micro M): 2-6 µm</p> <p>Power Required: 230 V 50 Hz</p> <p>Power Consumption: 75 W</p>	1

101

		Dimensions Height 10 cm x Width (Cm) 15.8 cm x Depth (cm) 17.5 cm Weight - 1500 Grams Contains: Jet Air Nebulizer, 5 Pieces Replacement Filters, Air Tube, Carrying Bag, Child Mask, Compressor, Mouthpiece, Instruction Manual Technology Aerosol With Piston Electro Compressor Type	
37	Normal Saline Bottle	Sodium Chloride Glucose Intravenous Infusion Bp (0.9% 5%) 500 ml	4
38	Paper	70 GSM, A4 Size, Ream of 500) A4 Size Paper, 500 Pages	1
39	Pen	Ball Point Pen Ball Pen	15
40	Pencil	Lead Hardness - 2HB, 1 Packet Of 10 Each Pencil,	1
41	Pillow	Specification: Fabric - Micro Fabric Pattern Quilted Size -17 X 27 Inches Colour - White Shape - Vertical Filling Material - Cotton Cloth Plain Weave Polyester Cotton (67:33) White, Weight - 715-Grams	4
42	Pillow Covers	Colour - Solid Colours – Navy Blue/Dark Blue/White Etc, Size: 17" X 27" Inches Fabric - Cotton 100% , Pattern - Plain/Satin Stripe Size - 76 X 48 cm	6
43	Registers	Hard Cover, Long Notebook Registers Regular Register, 300 Pages, Length and Width 148 X 210 mm	3
44	Sample Collection Bottle	Sample Container Screw Cap, Material: Polypropylene, Size: 35 ml and 45 ml	20
45	Dressing Scissors	Material - Stainless Steel, Anti- Rust Size - 7 Inches, 180 Mm Variety -Sharp /Blunt Stainless Steel	3

46	Micro Surgical Scissors	9 cm (3.5") Long Straight, 6 mm Blades 3 mm Cutting Edge Stainless Steel Stainless Steel, 5 Inches	2
47	Shampoo Bottle	500 ml Bottle Hair Shampoo,	4
48	Pencil Sharpener	Material: Plastic Body with Metal Blade.	10
49	Splint Medium	Immobilization Splint Made of Eva Coated Re-Formable Aluminium Inlay. Medium Size (46 cm X 11 cm), Full X-Ray Transparent Wrist & Forearm Splint, Adult Use	1
50	Steel Basin	Standard Product, Material: Stainless Steel, Size - 12 Inches	1
51	Steel Bowl	Standard Product Material - Stainless Steel Round Bowl, Stainless Steel, Capacity of Bowl - 225 ml.	1
52	Steel Tray (Medium)	Medium And Small Rubber Stainless Steel. Size - 12 x10" Stainless Steel, Rectangular Shape with Lid, Size - 10 cm X 12 cm, Weight - 700 Grams	2
53	Sterilizer (Shallow Dressing Drum)	Material: Stainless Steel Sheet by Deep Draw Process Size: 9" X 5" /8" X 8"/12" X 10" Inches Vertical Cylindrical Steam Steriliser Pressure Type, Steriliser Chamber Size: 300 mm (Diameter) X 500 mm (Length), , Reaffirmed 2001, With Amendment 1 & 2, Fitted with Silicon Door Gasket (Expansion Type). Electric Load Of the Unit Shall Be 4 Kw.	1
54	Stopwatch	TC6 Timer / Clock / Stopwatch Digital, Rectangular Shape	2
55	Stretcher	Should Be Light, Safe and Reliable, Made Of Aluminium Alloy and Hold for The Same, Easy to Lock and Unlock Features Safety Belts For Patient, Length Adjustable, Should Open into Two Halves, Not Exceeding the Below Dimension Product Dimensions - 192 X 43 X 8 cm Net Weight - 9 Kg Stretcher Bearing - 120 Kg Stretcher for Emergency and Rescue Operations, Material Powder Coated Mild Steel	2

56	Suction Apparatus	A/C Power. •Pumping Rate: 15 L/ min •Power: ≤90va •Max Negative Pressure Value: ≥0.075 Mpa •Noise: ≤65 db(A) Backup For 20 Min. Provision with Manual Operation in Case of Any Power Failure High Vacuum Suction Machine -Medical (Aspiration Unit)	1
57	Syringe Destroyer Needle Burner	Powder Coated Housing with Built in Removable Bin for Burnt Needle Stubs Cut Syringe Nozzles. Material: Moulded Type, Shock Proof and Made of ABS Plastic / Stainless Steel 304 Grade. High Carbon Steel Cutter to Cut Syringes. Slots: 2 Power: 100 Watt / 220 Volts, 10% 50 hz AC. AC Overload Protection Built in Fuse Electric Burning Syringe Cutting Needle Range 14 G To 30 G And 12 mm To 40 mm (0.5" To 1.5") Bin Size 87 X 78 X 85 Mm Dimensions 220 Mm X 180 mm X 150 mm Weight 3 Kg. Approx. Net. To Destroy the Used Injection Needles by Instant Electro Melting Process and To Cut Syringe Tips Manually Using the Appliance, Portable Electric Type, Electro-Melting Type	1
58	Talcum Powder	400gm Talcum Powder	4
59	Toothbrush	Medium Bristles. Toothbrush For Adults' Size Suitable for Adult Use	8
60	Toothpaste	200 Grams	4
61	Torch	•1-Watt Super Bright Led •4 V/400 Mah Rechargeable Powerful Battery •Initial Charging: Min 18 Hrs •Regular Charging: 14 Hrs •High Quality Plastic Body Battery Type: Lead-Acid Led Torch	1
62	Towel Big	Towels Surgical (Sheets) Material - Cotton Size -16x24 Inch Material Terry (Tricky Towel)	1



63	Urinal Set (Female)	Material - Stainless Steel, Capacity - 750 ml, Manual Flushing	2
64	Urinal Set (Male)	Material - Stainless Steel Capacity – 750 ml Bowl (Flat Back) Without Flushing Rim Size (410 X 265 X 305) mm; Fig. 2	2
65	Uro-Bag	Drain Bag Capacity 2000 ml Drain Type Metal Clamp With Foley Insert Tag Latex Free Reflux Style Anti Reflux Device Sample Access Port Type: Blunt Cannula Sterility or Sterile Material Transparent Polyvinyl Chloride, Capacity 2000 mm,	4
66	Weighing Machine (Digital Electronic Weighing Machine)	Features: High Precision Strain Gauge Sensor System 6 mm Tempered Glass 280 X 280 mm Capacity 180 Kg Graduation 100 Grams LCD Display Size: 73 X 28 mm Auto On Auto Zero & Auto Off Over Load Indication Low Battery Indication Cr 2032, Lithium Battery Portable Body Mass Index Machine, Weight Capacity 10 To 200 Kg, Platform Size 300 x 350 mm, Input Power Supply 230 V +/-10%, 50 Hz, Single Phase AC Supply, Battery Backups 4 Hours.	5
67	Wheelchair	Nylon Upholstery • Full-Length Arms Padded • Carry Straps On Seat Allow For Ease Of Folding And Lifting • Footrest • Fold -Down Back • Lightweight Seat Width Standard : 17 Inch Rear Wheel Size 24 Inch Solid Caster Size 8 Inch Footrest Detachable Armrest Padded And Detachable Coating Steel Powder Type Of Back Rest Removable, Frame Tube Thickness 22 mm, Loading Capacity 100 Kg,	2



68	White Board	Mounted on Stand Size - 5'x4' Feet Material of Board Ceramic Steel, Width of Aluminium Frame IS 20-mm, Dimension Of Board - 2x3 Feet	1
69	Writing Pad	150 Page Size: A4 Size Spiral Bound Material Plastic, Size 380 X 224 mm,	6
70	Bedsheet	Material - Cotton, Size - 36" X 80" Inches Colour - Solid Colour - Blue/ White/ Light Blue/ Green Material - Variety No-4; 100 % Cotton; 145 Grams Per Sqm, Length and Width 215 X 135 cm,	6
71	Walker	Material Steel Weight Max - 150 Kg Min. Handle Height - 32 Inches Max. Handle Height - 39 Inches Aluminium Tubular Frame, Foldable Walker, Frame Weight - 3.1 To 3.5 Kg, Users' Maximum Weight - 113 Kg	2
72	Measuring Tape	1x 1.5 Meter Flexible Measuring Tape Material Flexible - PVC, Tape Weight 60-To-80 - Gram, Thickness - 1 mm.	1
73	Thermometer - Digital	Oral, Prismatic Type, Cylindrical Bulb Lens Front, Dual Scale Measurement Range: 35-42°C & 94-108°F Accuracy $\pm 0.1^\circ\text{C}$ & $\pm 0.2^\circ\text{F}$ In Plastic Case. Electronic Medical Thermometer or Clinical Digital Thermometer, Weight 10 Gram	4
74	Sandbag	Filled Sandbag: Capacity: 15-20 Kg, Material - Woven Plastic/ Jute	5
75	Measuring Glass	Material - Plastic, Capacity - 50 ml	2
76	Syringe 50 cc/ml	Material: medical grade transparent polypropylene consist of barrel, plunger, standard piston in superior quality by high accurate Molds. Assorted sizes: size: 2ml, 3ml, 5ml, 10ml, 20ml, 30ml, 50ml material polypropylene, sterile hypodermic	20

		syringe for single use with needle and stainless-steel needles	
77	Ryle's Tube	Material: Non-Toxic, Non-Irritant PVC, Distal End Conned with Corrosion Resistant Stainless Steel Marked At 50 cm 60 cm & 70 cm from The Tip for Accurate Placement Length : 105 cm Sizes : Fg : 8/10/ 12 Nasogastric Feeding of Nutrition and Aspiration of Interstitial Secretion, Material Silicon Coated Pvc, Length 120 cm.	2
78	Vacutainer	Material: polyethylene terephthalate/ polystyrene, sterile Draw volume: 3-5 ml Pierceable/ leak-proof cap material polycarbonate with plastic cap, Capacity 2 Centilitre	5
79	Tourniquet	Material: Latex-Free Thermos Plastic Elastomer. Thickness: 0.55 mm (0.021") / 0.63 mm (0.024")/ 0.7 mm (0.027"), Length and Width: 3/4" X 29.52"(19 mm X 750 mm) / 1.5" X 32"(38 mm X 812 mm)	5
80	Crash Cart	Size: (760 L X 460 W X 860 H) cm Made in SS 304 Grade 18 Grade Stainless Steel Sheet Two Shelves in Instrument Trolley Rod Railing Fitting 04 Nos 5"X32 mm Castor Fitting. Material of Crash Cart Console ABS Thermoplastic Number of Baskets in Over Bridge 6 Width of Trolley 800 mm Height of Trolley 1100 mm Depth of Trolley 700 mm	1
81	Full Body Mannequin	Designed To Deliver Comprehensive BIS Training for Professional Rescuers Performance Indicator Providing Immediate and Objective Feedback on Key CPR Elements to Be Delivered with Caring Case Track Suit Directions for Use and 50 Manikin Wipes	1

24

82	Oxygen Cylinder with Single Trolley	1x Oxygen Trolley Suitable for Dimension of the Oxygen Cylinder Castors Diameter - 100 mm Width: 12 - Inch Wheel Material - Rubber Material - Stainless Steel 200 Cuff Cylinder Capacity Carriage 2x Oxygen Cylinder - Standard B Type With Connector, Pressure Gauge, Trolley, Humidified and Two Additional Keys With Empty Oxygen cylinder. Material of Construction: Aluminium - Anti Rust and Light Weight Capacity: 10 Litres Valves For Regulating Oxygen Supply Type of Trolley Sack Trolley Loading Capacity Minimum - 50 Kg Weight Of Trolley - 4.5 Kg	1
83	Wet Wipes - Cloth	Pack Of 10. Hypoallergenic Ingredients and Dermatologically Tested	10
84	Sphygmomanometer	Included Components Sphygmomanometer, Free Basic Stethoscope, Carrying Case, Calibration Key Power Source Manual Use for Arm Display Type Analogue	1
85	Wall Mounted Stadiometers	(2 Meter / 200 cm) Stadiometer Height Scale Stadiometer Wall Mounted Growth Stature Meter Measure Height Measuring Measurement Tape	1
86	Weighing Scale	Machine For Body Weight Display Type LCD	1

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- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

vi. Tourism:-

It should train students in travel operations, customer service, and front-office management using real-world tools like computers, booking forms, promotional materials, and simulation kits to prepare them for the hospitality and tourism industry.

Tourism & Hospitality – Guest service associate (Housekeeping) and Food & Beverage Service - Associate

Proposed Minimum Equipment:

Sl. No.	Description	Quantity
1	Housekeeping Trolley (Demo Unit) – With compartments	1
2	Cleaning Tools – Mops, dusters, brushes, spray bottles	10
3	Linen Sets – Bedsheets, pillow covers, towels (demo)	5
4	Guest Room Setup Props – Dummy toiletries, slippers, amenities	5
5	Uniforms – Aprons, gloves, caps, name tags	5
6	Training Manuals – SOPs, checklists, etiquette guides	10
7	Role-play Props – Dummy feedback forms, service logs	5
8	Register Books	2
9	Round Wall Clock	3

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vii. Telecom: -

The kit should provide students with hands-on training in fiber optics, digital networks, and IoT through industry-grade tools, simulators, and safety equipment to build skills for modern communication technologies.

Proposed Minimum Equipment:

S.No	Equipment	Quantity
1	Smartphones: 6 inches display, 4G LTE or above, 4GB RAM and 64GB Memory, 8MP + 5MP camera, OS: android/IOS, USB-C	4
2	Tablet PC: 8.7 inches display, 4G LTE or above, 4GB RAM and 64GB Memory, 8MP + 5MP camera, OS: android/IOS, USB-C	4
3.	Smart IoT Home Devices	3 Set
4.	Networking patch cable: 30 meters	1
5.	Fiber Optic Cable (Demo Roll)	100mtrs
6.	Fiber Power Meter	1
7.	Repairing Equipment along with necessary Accessories	1 Set

Note 1: The items and quantities mentioned are core requirements for delivering each trade and are supplied accordingly. In addition to these additional miscellaneous items, accessories and consumables shall be provided as needed to operate the selected trade effectively.

Note 2 :

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3. Vocational - Raw material grant

Scope of work: Each school should be supplied with trade-specific consumables and raw materials to support practical training and classroom activities for two vocational trades. These materials should be essential for enabling regular hands-on practice, skill development, and demonstration-based learning aligned with the selected job roles in all 789 schools.

Job List:

S. No.	Job role
i.	Agriculture
ii.	Automotive
iii.	Apparel
iv.	Electronics
v.	Healthcare
vi.	Tourism
vii.	Telecom

i. Agriculture:

Sl. No.	Tools & Equipment	Specification	Qty
1	Latex Rubber Gloves	Size- inch Free Size Natural Rubber Powder content < 15 mg / dm ² Extractable Sterilization Ethylene Oxide / Gamma irradiated RUBBER GLOVES Validation of Sterilization Chamber Protein Level: <200 micro gram/ dm ² . Material Latex Rubber Water Proof	5
2	Gardening Kit	Kit Contains (Number of Gloves 1 pair Drip Trays 2 2 Size of pot (Top diameter) (cm) 9-centimeter, Size of gloves Medium Number of seed packet 4 watering can 1, Number of Trowel 1 Item in a kit Fork, Gloves 2 Number of Weeder 3 Number of Fork 1 Number of soil discs 1 Number of shears 1 Material of Trowel SS Number of pots 3)	1
3	Flowerpot	Material Plastic Shape (When viewed from Top) Round Pot Length (Diameter) 500 millimeter Pot Width (Diameter) 400 millimeter Pot Height (Overall Height) 1000 millimeter	2
4	Khurpi	Material of Khurpi Carbon Steel	2
5	Watering Can	Shape of Watering can Other Opening for Watering Filling, Type of Handle Saperate Handles for Hanging and Holding,Support Between Spout and Body Type of Spout With Perforation,Colour Green Material of Watering Can Polypropylene (PP) Capacity of Watering Container(In litre) 9.1-11 Height of Watering Can(in MM) 301-310	2
6	Seed Germinati O N Cycle Chart	Material- Laminated paper, Colour- Multicolour, Size- 100cmX70cm, Plastic rods on both ends, Hanging strip, Thickness- 30micron. Language- English.	2
7	Insect, Pest & Diseases Chart	Material- Laminated paper, Colour- Multi colour, Size- 100cmX70cm, Plastic rods on both ends, Hanging strip, Thickness- 30micron. Language- English.	2

104

8	Compostable Mulch Sheet	Usage Application Agriculture CPCB & IIP Licensed for overall migration ,CIPET Certified for Biodegradability, Intertek certified for seal & puncture, Packing Type Roll Made in India, Color Black/Green Thickness in Micron 20 to 5 Width in m 1 size m/Roll 20	1
9	Kissan Suraksha Kawach	Shoe cover Ancel Length Water Proof & Dust proof, Easy to wear, Length in mm400 Weight gm6.6 Cap, Weight:30 gm Material, Non-woven polypropylene Length in Inch 18 color Blue/Green Safety Goggle, weight in gm30 Body Cover, MaterialSpun Bond Weight gsm 90	1
10	Soil Testing Reagen Kit	Reagent Kit for-samples parameters 14 License Technology License by IISS Bhopal Type of parameters EC,pH, Organic Carbon, Pottasium, Nitrogen, sulphur, Lyme Gypsum, Iron, Zinc, carbon Phosphorus like parameters. No of Sample to be tested - 50 Sample	1

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ii. Automotive

Sl. No.	Tools & Equipment	Specification	Qty
1	Bench Vice	Material And Dimensional Parameters -: Material of Body for Bench Vice -Steel cast Material of Movable jaw- Steel cast Material of Swivel base plates- Steel cast Material for Jaw plates- Tool steel Material for Screw spindle and handle- Steel Material for Spindle nut- Grey cast iron Nominal size of bench vice in mm- (width of the jaw) (tolerance of ± 2 percent) 125 Minimum mass of Fixed base bench vices- (in kg) 15 Minimum mass of Swivel base bench vices -(in kg) NA for Fixed base bench vice The hardness of the jaw plates- (in HV) (445 HV to 596 HV Fixed base bench vice The hardness of the jaw plates- (in HV) (445 HV to 596 HV	1

2	Oil Draining & Filling Equipment	Material of Oil Can - Mild Steel, Material of Nozzle - Stainless Steel, Capacity of Oil Can - 500 ML Length of Spout - 50MM Outer Diameter of Spout Tip - 2MM, Inner Diameter of Spout Tip - 2MM, Diameter of Filling Hole - 2MM	1
3	Multi meter	Style - Digital Colour- Blue Item Weight - 13.8 Grams Item Dimensions LxWxH - 6.9 x 3.1 x 13.8 Centimetres Must include Instruction Manual, 1 Set test leads Measurement Accuracy $\pm 0.8\%$ rdgs (DC Volt), $\pm 1.2\%$ rdgs (AC Volt) Measurement Type – Multimeter Number of Items – 1	1
4	Hand Tools	Material -Chrome Vanadium Steel Item Dimensions LxWxH 20 x 10 x 3 Centimeters, Head Style - Hex Finish Type -Nickel Chrome Set contains:- 2 x - 1/2" Spark Plug Sockets: 16MM & 21MM 1 x - 1/2" x5" Extension Bar. 1 x - 1/2" x10" Extension Bar. 1 x - 3 Way Adaptor. 1 x - 1/" Ratchet Handle 6 x - 1/2" (Socket 12PT): 10-12-13-14-16-17MM 19 x -1/2" (Socket 6PT) : 8-9-10-11-12-13-14-15-16-17-18-19-21-22-24-27-32MM	1
5	Cotton Gloves	Size-Small Width across palm - 10 cm for small Overall Length - 24 cm for small Depth of Cuff - 6 cm for small Total No of Wales - 68 for small	5
6	Sun Glasses	GOGGLE LENS Filter – 2- 1.2 UV according to EN 170, Impact Resistance: Designed to withstand energy impact of 120 m/s on the frame Maximum Weight of Chemical Splash Proof Goggle 100 grams	2
7	Spark plugs	Spark plug sockets 67 mm drive size 16/21 mm Core Material Iridium Gap Size 0.9 Millimeters Top Material Type Alloy Steel Vehicle Service Type Motorcycle	2
8	Gloves	Nylon anti cut safety hand glove Material Nylon Color Green, White & Grey etc.	4

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		Usage/Application Industrial Categories Safety Gloves Feature Cut Resistant Finger Type Full Fingered Size/Dimension S, M, L, Free Size Gender Unisex Packaging Size 1 pair per packet Weight 30 gm	
9	Puncture tool Kit	Type Universal Tubeless Tire Repair Kit Usage Emergency Flat Tire Repair Patch Puncture Kit Tool Bag for Car, Bike Kit Contains Reamer, Probe, Rubber Solution, 10 Puncture Repair Strips, Cutter, Storage Bag (2x Needle Tool Bits for Lifetime Reliability)	1
10	General Hand Tool	Product Dimensions: 28 x 4.5 x 25.3 cm; Item Weight: Approx. 2 kg 470 g	1

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iii. Apparel

Sl. No.	Tools & equipment	Specification	Qty
1	Sewing Machine Accessories And Attachments	1 high quality bobbin case, 5 high quality aluminium bobbins, 1 pair of right & left single/zipper foot, 1 gathering foot, 1 box [10nos] sewing machine needle of size 14 and 1box [10nos] sewing machine needle of size 16.	15
2	Shears (8-10" Iron Blade For Cutting Fabric)	Tailoring scissors of minimum 9.5inch made up of stainless steel for cutting a fabric.	15
3	Seam Ripper	Handy seam ripper with plastic cover, used for opening stitches for sewing and craft works, length : large size(lxw):30 x 5 mm, small size(lxw): 60 x 5 mm, handle length (in mm) : 35, 98	15
4	Tailor's Chalk	Extra smooth tailoring, sewing markers with fashion designing triangle scales, set of 15 dust free tailoring chalks	15
5	Safety Pins	Steel safety pins of medium (3.5cm) and large sizes (5.5cm)	15
6	Scale	Metallic scale of sizes 6" & 12"	15
7	Measuring Tape	Pvc measuring tape of 7.5 m and 0.5" width	15

8	Bobbin And Bobbin Case For Industrial Machine	Steel bobbin and bobbin case, material: stainless steel, dimension (lxbxh) in cm: 4x3.5x1.3	15
9	Hand Needles	Assorted hand sewing needles for embroidery and mending, standard size, material : stainless steel, finish : polished, rust proof, dimension (lxb) in cm: 5x0.26	15
10	Machine Needles	Sewing machine needle with one pack containing minimum 20 needle, standard size, size: 9, 11, 14, 16, 18;	15
11	Threads	180 mts polyester thread used in hand & machine work (set of 100)	15
12	Personal Protective Equipment (Nose Mask, Goggles, Etc.)	Gown non oven 1 n95 facemask 1 head cap non oven 1 disposable gloves , 1 shoe cover knee length 1 waste collection bag 1 goggle 1 kit size mm 300x350	30
13	Pouches For Storing Items	Clear transparent zip lock bags with write on panels - large, medium and small size- 200x300mm, 250x350mm, 300x400mm (for storing threads, garments, needles etc)	15
14	Machine Oil	200ml bottle of sewing machine lubricant oil.	15
15	Documents/Charts	Tech pack/ specification sheet size chart trim card seam samples of different fabric buyer's comment sheet operation bulletin company quality standards handbook/ guidelines fabric worksheet style confirmation sheet fabric consumption chart fabric requirement sheet (frs) trims requirement sheet	10
16	Fabric Yardages, Surplus Fabric, Good Quality Muslin Mandatory)	25 mtr = 1 unit	10

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- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

iv. Electronics

Sl. No	Tools & Equipment	Specifications	Qty
1	Ruler (Steel)	30cm long nominal size (cm)30	5
2	Measuring Tape	Measuring tape of 5 meter x 19 mm size of tape (lxw)(mmxmm) 600x25	5
3	Aluminium Wire	Digital dmm - current, voltage, capacitance, frequency & resistance measurement., frequency range: 99.99-20.00 mhz, dc voltage range: 400mv/4/40/400/1000v, ac current accuracy: $\pm(2.0\%rdg + 4dgt)$, duty cycle: 0.1-99.9%, sp function: diode test, audible continuity, data hold. Type: hand held, measurement type: true rms, dc voltage range - 600 volt, ac voltage range : 600 volt	8
4	Rasp File	8" wood rasp file set with rubber grip + plastic handles - includes hand cut round, half-round, and flat rasp file kit types of engineer's files-half round, grades of cuts : bastard, material : alloy steel	5
5	Punch With Bit 8no& 10no	Punch holder with 8mm and 10mm bit d	2
6	Screw Driver Kit	Screwdriver kit of 8 blades with tester, flat tip: 3. 25, 4. 5, 5 mm, die no - 0, 1, 2, pocker and extension rod. Blade material made from manganese steel	5
7	Wire Stripper	Electrical insulation from electric wires.	2
8	Wire Stripper, Cutter, Crimper And Pliers	Multi crimp and stripper pliers product dimensions 8.2 x 2.6 x 0.6 inches with insulated rubber grips length of hand tool in mm 125	4
9	Stopwatch With Battery	Digital stopwatch with battery. 12 hour display format display: led, power requirements : battery, display : led, cabinet material : plastic, wooden	2
10	Solder Wire	Solder wire (tin/lead) - 60/40 18 swg	5
11	Copper Wire	Copper wire for electrical fitting type of insulation: pvc, price/meter	2

12	Aluminium Wire	Aluminium wire for electrical fitting 2 core 16mm, cable size (sq-mm): 2.5, type of cable -flat, type of conductor - three strand	2
13	Pvc Insulation Tape	0.125mmx18mm 10 yards self adhesive pvc electrical insulation tape-colored pack of 4 sunlight resistant, pressure sensitive vinyl electrical tape length of tape on a roll (meter) -25	10
14	Flexible Pipe	Units in mtrs material :pvc thickness: 1 - 5mm feature :self-extinguishing length :2-10m nominal pressure: 2 bar material of waste fitting nominal size 32 mm for washbasin	10
15	Desoldering Pump & Wire	Manual / electric vacuum desoldering pump temperature range 50 deg c to 450 deg c, power cord length (minimum) 1.2 mtrs	5
16	Cables	10/14 copper wires 1mmx2 core rr cables copper wire fr pvc 1.5mm	2
17	Hand Glove	Material : polyurethane coating, anti-static nylon/carbon yarn size (palm width in mm) extra large (120 mm)	10
18	First Aid Box	"large household multi-layer first aid kit multifunctional medicine box comprising of first-aid bandage, small scissors, tweezers or a cotton swab, ointment, and other basic over the counter drugs." clinical thermometer 1 cotton bandage, size : 3 mtrs. * 5 cm. 1 adhesive plaster (woven fabric) : size 19*72 mm. 1 face mask - 05 sterile gauze swab : 5*5 cm. 1 antiseptic liquid 100 ml 1 antiseptic cream 25 gm 1 microporous tape 1 tweezer 1 scissor 1 examination gloves 2 pain relief spray 30 ml 1 antiseptic soap 50 gm 1	1

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v. Healthcare

Sl. No	Tool & Equipment	Specification	Qty
1	Air Cushion	Standard oem product rubberized coir pillows size: 61 x 35.6 x 10.2 cm.	5
2	Ambu Mask	Standard product <ul style="list-style-type: none"> • silicone adult 1600miresuscitator (w/ pop-off 60cmh20)" • silicon mask 5 • 2500ml oxygen reservoir bag. • disposal oxygen tubing 2 meter • 1000 percent medical grade silicone material. • latex free components • available in polysulfide type. • autoclavable 	
		<ul style="list-style-type: none"> • the set to include pvc reservoir bag, silicon mask 5 and disposable oxygen tubing. • 40cm h20 pressure relief valve • all in one intake valve. Self filling with air, usage for infant/child 	5
3	Betadine Solution Bottle	500 ml bottle provide iodine, brown color, 500 ml	5
4	Blanket	Size: 180 × 260 cm material: fleece colour: single colour: navy blue/ dark blue 100% woolen, size 230 x 152 cm,	5
5	Cleaning Solution	Multi purpose cleaning liquid in 500 ml bottle with spray cleaning solution	5
6	Comb	Material: high quality plastic. Standard product for personal grooming purpose material plastic	5
7	Cotton Roles	250 gm roll thickness 12 mm, width 25 mm, weight 200 gram	5

8	Different Color Plastic Bags (Red , Yellow, Blue, Black) With Dust Bins	Contains: (a)4x plastic bags (one of each colour - red, yellow, blue and black) material: polypropylene size: 48 x 58 cm type: biohazard disposable bag (b)4x dustbins color red, blue, green, yellow, black material polypropylene plastic size 30*36 cm (w*h)	5
9	Draw Sheet	Standard oem product Material used: non woven · color: medical blue · weight: 25 gsm · size: 200 cm x 150 cm · application/use: for covering bed · special feature: water repellent general surgery drapes, size 120 x 150 cm,	5
10	Duster	Material: acrylic duster with removable sleeve and pvc handle duster, floor duster, cleaning duster, size 30 x 30 cm	2
11	Gauze Swabs	Material: cotton size: (4x4 inch) dimension 50 mm,	25
12	Gloves (Disposables)	1packet*100 pieces material: nitrile rubber, powder content : < 2.0 mg/dm ² extractable protein level : <200 µg/ dm ² sterilization : non sterile disposable surgical rubber gloves conforming to is:13422/1989 (ra 2003) -pre powdered	20
13	Gloves (Surgical)	1packet*100 pieces material: natural rubber powder content : < 15 mg / dm ² extractable protein level : <200 micro gram/ dm ² . Sterilization : ethylene oxide / gamma irradiated rubber gloves / surgical gloves, material natural rubber latex	20

NA

14	Goggles	<ul style="list-style-type: none"> •frameless polycarbonate safety eyewear with wrap around design. •lenses are impact resistant to level f. •lenses are optical class-1. •scratch-resistant coating on lens. •99.9% uv protection. •meets or exceeds •. Safety goggle, as per Bis specifications, material polycarbonate 	20
15	Hair-Cap Packet	1packet*100 pieces atlas disposable caps non-linting Kayce fabric with a polypropylene top and straps •layers: 5-layers soft white sweat pad surgeon cap	20
16	Liquid Soap Bottle	Foaming handwash 215 ml, 1 litre, liquid soap	10
17	Marker	With replaceable refill: tip size (mm):2.0mm board marker	15
18	Normal Saline Bottle	Sodium chloride glucose intravenous infusion bp (0.9% 5%) 500ml 500 ml	5
19	Paper	70 gsm, a4 size, ream of 500) a4 size paper, 500 pages	2
20	Pen	Ball point pen, ball pen	5
21	Pencil	Lead hardness:2b 1 packet of 10 each, 10 pencils packet	5
22	Pillow	Specification: fabric: micro fabric pattern :quilted size : 17 x 27 inches color: white shape: vertical filling material: cotton cloth plain weave polyester cotton (67:33) white, 715 gram weight,	6
23	Pillow Covers	Color: solid colours: navy blue/ dark blue/ white etc size: 17" x 27" fabric: cotton 100% pattern: plain/satin stripe size: 76 x 48 cm	6
24	Registers	Hard cover, long notebook registers regular register, 300 pages, length and width 148 x 210 mm	5
25	Shampoo Bottle	500 ml bottle hair shampoo, 200 ml	4
26	Pencil Sharpener	Material: plastic body with metal blade. 10 pencil sharpeners	10

104

27	Talcum Powder	400gm ponds talcum powder, 200 gram	5
28	Tooth Brush	Medium bristles. Toothbrush for adults size suitable for adult use	8
29	Toothpaste	200gms/100 gram	5
30	Towel Big	Towels surgical(sheets) material: cotton •size: 16x24 inch material terry (truck towel), size 150 x 75 cm	5
31	Uro-Bag	Drain bag capacity ml 2000 ml drain type metal clamp with foley insert tag latex free reflux style anti reflux device sample access port type: blunt cannula sterility o.r. sterile material transparent polyvinyl chloride, capacity 2000 millilitre,	4
32	Writing Pad	150 pages size: a4 size spiral bound material plastic, size 380 x 224 mm,	6
33	Bedsheet	Material: cotton size: 36" x 80" colour: solid colour - blue/ white/ light blue/ green material: variety no-4; 100 % cotton; 145 gms per sq.m, length and width 215 x 135 cm,	6
34	Sand Bag	Filled sandbag: capacity: 15-20 kg material: woven plastic/ jute	2
35	Wet Wipes - Cloth	Pack of 10.hypoallergenic ingredients and dermatologically tested	10

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12

vi. **Tourism**

S. No	Tool & Equipment	Specification	Qty
1	Round Clock	8 inches diameter with cell wall clock 8 x 8 inch round	7
2	Passport Or Visa Demo Dummy	Dummy passport	10
3	Broachers	(hotels-20 types, travel agency 20types, mtde offices 20)	10
4	Forms	Reservation form100, confirmation form100, cancelation form100, customer information forms 100, feedback form100	10
5	Posters	(travel agency 3, hotels-3, restorants-3, travel) 4 feet by 4 feet	10
6	Posters On Famous Tourism Places	(manmade, natural, symbiotic, cultural, sports etc) 5 feet by 4 feet	10
7	Promotional Umbrella	Umbrella material- abs plastic, size- 6ft.dia table size- 16 inch x32 inch print area- front 32"x32"; side 16"x32" tourism stalls for branding or advertising or service on the tourist spot. Like packages, guide, bookings, food and beverage, accommodation etc commercial patio umbrella, length of umbrella ribs is 200 cm,	5
8	Supply Extension Cable Port	5 pins	5
9	Books- Travel Experiences	Books on traveler's experiences	10
10	Debit / Credit Card Machine	14 x 9 x 4 cm; 210 grams	1
11	Register And Log Books	General size and purpose	4



12	First Aid Box	"large household multi-layer first aid kit multifunctional medicine box comprising of first-aid bandage, small scissors, tweezers or a cotton swab, ointment, and other basic over the counter drugs." clinical thermometer 1 cotton bandage, size : 3 mtrs. * 5 cm. 1 adhesive plaster (woven fabric) : size 19*72 mm. 1 face mask - 05 sterile gauze swab : 5*5 cm. 1 antiseptic liquid 100 ml 1 antiseptic cream 25 gm 1 microporous tape 1 tweezer 1 scissor 1 examination gloves 2 pain relief spray 30 ml 1 antiseptic soap 50 gm 1	1
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vii. Telecom

Sl. No.	Tool & Equipment	Parameter	List of value	Qty
1	Fiber Optic Power Meter	Type	Optical power meter	2
		Wavelength range (nm)	800-1700	
		Universal connector	Fc/sc/st	
		Vfl (options)	1mw/10mw/20mw/30mw/50mw	
		Battery working hours(h)	≥72	
		Size (mm)	112x66x30	
		Net weight (g)	140/150	
2	Digital Multimeter	Type of digital multimeter -	Hand held	2
		Ac voltage accuracy - percent	1	
		Temperature accuracy - 2percent	2	

		Frequency accuracy - percent	0.1	
		Ac voltage range - volt	600	
		Temperature resolution - degree celsius	1	
		Dc voltage range - volt	1000	
		Frequency resolution (hz) -	0.001	
		Dc voltage accuracy - percent	0.5	
		Dc voltage resolution - millivolt	0.1	
		Display (digits) -	4.5	
		Weight gm	120	
		Material	Plastic	
3	Connector Crimper	Type	Crimping connector	5
		stripped length mm ,	12.7	
		Terminal and wire at a rate no faster than mm	25	
		Item dimensions length - cm	17	
		Width – cm	5.5	
		Height – cm	3.1	
		Weight – gram	200	
4	Fiber Optic Stripper	Type	Optic fibre striper	5
		Material	Metal plastic	
		Weight – gram	140	
		Dimensions	x 7.5 x 1 cm 17.5	
		Easy to operate	Yes	
		Easy to store	Yes	
5	Tweezers	Material	medical grade stainless steel	10
		Corrosion resistant	Yes	
		Size	15cm	
		Reusable	Yes	
		Sterile/non sterile	Non sterile	
6	Cleaver	Blade type	Zigzag	10
		Handle material	Plastic	
		Easy grip	Yes	
		Blade material	Harden steel	
		Easy to operate	Yes	
		Rustproof	Yes	
7	Connectors	Type	2 line phone connector	100
		No.of port	1	

		Termination	Idc / idt	
		Contact resistance	20mohm	
		Current rating	1a	
		Insulation resistance	1000mohm	
8	Power Extension Cord	No. Of sockets	4	5
		Material	Polycarbonate	
		Length of the cable in the extension cord – mtr	1.5	
		No. Socket pins - nos	5	
		Current – amp	6	
9	Hand Brush	Material	Plastic	10
		Bristle stiffness	Medium	
		Color	Blue	
		Brush type	Hair filament	
		Size – cm	10	
		Weight – gm	55	
10	Cello Tape	Cello tape great for permanent mending of torn paper, gift wrapping, covering note books, arts and craft assignments, class projects, sticking decorations or time tables, light sealing etc. It is invisible on most of the paper and won't show on photocopies. Can be written on with pen, pencil or marker can be torn by hand - no need for scissor or cutter		20
		Length -meter	65	
		Width – inch	1	
11	Pvc Electronics Tape	Self adhesive pvc electrical insulation tape-colored sunlight resistant, pressure sensitive vinyl electrical tape		20
		Width – mm	0.125	
		Height – mm	18	
		Length – yards	10	
		No. Tape in packets - nos	4	
		Color	Multicolor	
12	Safety Goggles	Medical safety goggles made-	Polycarbonate	10
		Frame size -	Medium	
		Lens -	Clear with adjustable strap	
13	Electrical Tool Kit	Screw driver	1	5
		Combination plier	1	
		Nose plier	1	

16

		Wire stripper	1	
		Pvc electric tape	1	
		Adjustable spanner	1	
		Line tester	1	
		Multimeter	1	
		Tool kit bag	1	
14	Hand Glove	Size- inch	9	10
		Powder free	Yes	
		Non-sterile	Yes	
		Material	Latex	
		Water proof	Yes	
15	Technician Safety Helmet	Require standard size which generally fits all interiors are with air-mesh fabric to keep collinear	Yes	10
		Material :mesh outer material -	Plastic	
		Material -	Abs	
		Size -	M	
16	Vga Cable	Cable material : plastic , copper, pvc. Conductor material : tin,		5
		Cable material	Plastic, copper, pvc	
		Conductor material	Tin	
		Type : .	Male/ female	
		Connector material	Silver plated.	
		Cable length - mtrs.	1.5	
17	Pen Drives	Memory storage capacity gb	16	5
		Item dimensions- length- mm	4.5	
		Width -mm	1.48	
		Height - mm	0.5	
		Weight -mm	6.4	
18	Flexo-Lite	Description	Flexible lite pipe	2
		Lenth	254mm	
		Lens style	Round with flat top	
		Lens size	4.2mm	
		Color	Clear	
19	Optic Connector	Housing material	Polymer	2
		Ferrule material	Ceramic	
		Type	Coupler	

		Mounting type	Panel mount, snap-in	
		Features	Angle polished, dust cap, shutter	
20	Fibre Patch Cable	Cable type	Fibre Optic, Ethernet	2
		Dimensions	x 16.99 x 3.81 cm 16.99	
		Batteries required	No	
		Weight	g 249	
		Bend radius	10mm (static)	
		Lenth	30 mtr	
21	Universal Tool Kit	Screw driver- 01 nos, combination piler-01 nos ,line tester-01 nos wire stripper- 01 nos pvc electronic tape-01 nos	Yes	10
22	Extractor Tool	Material	Metal	15
		Application	socket terminals removal tool	
		weight	g 113	
		Height	Inches 2	
		Width	Inches 5	

Note :

- Every items/material should be ISI mark (Wherever applicable).
- Bidder needs to submit for every tool, equipment, kit etc., a relevant BIS certification (Wherever applicable) to get Standardised products.
- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

4. Vocational - Hands-on Skill Training to Students

The bidder shall conduct 2-day training workshop to the students and teachers of the respective trades at the 789 schools for every six months:

1. Training Duration and Structure:

The bidder shall conduct a 4-day hands-on training workshop at each school, designed for both students and teachers participating in the respective vocational trades. Each day will include a minimum of 4 hours of structured sessions, incorporating both theoretical instruction and practical application.

2. Training Coverage:

The training should emphasize the effective utilization of equipment, development of trade-specific skills, adherence to operational best practices, and implementation of safety protocols to ensure proper handling and maintenance.

Particular focus should be given to real-world applications, task-based learning, and live skill demonstrations, aimed at fostering confidence and self-reliance among participants.

3. **Training Materials and Resources:**

The bidder shall provide:

- a. Printed handouts/user guides for each trade
- b. **Video manuals** demonstrating equipment usage and safety instructions, which shall be installed in the school's system for **on-demand access** by teachers.

4. **Assessment and Feedback:**

On the final day of training, the bidder shall conduct a **structured assessment** for both students and teachers to evaluate skill comprehension and practical readiness. The assessment shall include **hands-on tasks, oral questioning, and observation-based evaluation**.

5. **Reporting and Documentation:**

A **comprehensive report** shall be submitted to the concerned department after completion of each workshop. This report shall include:

- a. Attendance of participants
- b. Training schedule and content covered
- c. Assessment results and feedback summary

5. **Math Student Kit**

Scope of work: Supply of Math kits for students along with training. (Ten (10) kits each for classes 6 to 10 respectively) are to be provided in 789 schools. Each of the 789 schools should be provided with Math kits along with training support.

Kit Components:

- a. Activity Materials: Math Kit for each class should have Mathematical activities mapped with curriculum covering all chapters of the respective class.
- b. Instruction Manual: Step-by-step guides for each activity. should be mapped to the curriculum.
- c. Additional Resources: Links to video tutorials and additional reading material should be provided.

Activities Included:

Geometric Constructions: Using compasses, rulers, and protractors to construct shapes and angles.

- a. Fractions and Decimals: Visual aids and manipulatives to understand the concepts of fractions and decimals.
- b. Algebraic Expressions: Tools to simplify and solve algebraic expressions.
- c. Probability: Simple experiments to understand probability concepts.
- d. Statistics: Collecting and analyzing data using charts and graphs.
- e. Linear Equations: Hands-on activities to solve linear equations and inequalities.
- f. Coordinate Geometry: Using graph paper and tools to plot points and understand the coordinate plane.
- g. Number Theory: Exploring prime numbers, factors, and multiples through engaging activities.
- h. Ratios and Proportions: Visual aids to understand and solve problems involving ratios and proportions.
- i. Mensuration: Measuring and calculating the area, volume, and perimeter of various shapes.

DETAIL SPECIFICATIONS:

Sr. No.	Name	Technical Specifications
1	Math Kit for Class 6	<p>The kit should contain various magnetic boards such as the Number System Operator (N), Algebra Annotator (A), Coordinate System Demonstrator (CL), Geometry Expositor (G), Mensuration Evaluator (M), and Circle Descriptor. Along with these magnetic boards, the kit should include accessories like Data Handling Bar Plates, Button Magnets, Smiley Magnets (10 pieces), Triangle Plates, one Measuring Scale, Plastic Sticks and Square Plates (25 pieces). The kit should be reusable and safe, with non-toxic materials clearly labeled.</p> <p>Using this kit, students should be able to perform activities covering a wide range of topics included in their curriculum. The topics and corresponding activities should include:</p> <ul style="list-style-type: none"> ○ Whole Number ○ Playing with Numbers

		<ul style="list-style-type: none"> ○ Understanding Elementary shapes ○ Decimal ○ Integers ○ Fractions ○ Prime and Composite Number ○ Data Handling ○ Menstruation ○ Algebra ○ Ratio & Proportion ○ Symmetry ○ Practical Geometry
2	Math Kit for Class 7	<p>The kit should contain various magnetic boards such as the Number System Operator (N), Algebra Annotator (A), Coordinate System Demonstrator (CL), Geometry Expositor (G), Mensuration Evaluator (M), and Circle Descriptor</p> <p>Along with these magnetic boards, the kit should include accessories like Data Handling Bar Plates, Button Magnets, Smiley Magnets (10 pieces), Triangle Plates, one Measuring Scale, Plastic Sticks and Square Plates (25 pieces). The kit should be reusable and safe, with non-toxic materials clearly labeled.</p> <p>Using this kit, students should be able to perform activities covering a wide range of topics included in their curriculum. The topics and corresponding activities should include:</p> <ul style="list-style-type: none"> ○ Integers ○ Fractions ○ Data Handling ○ Simple Equations ○ Lines and Angles ○ Congruence of Triangles ○ Comparing Quantities ○ Rational Numbers ○ Practical Geometry ○ Perimeter and Area ○ Algebraic Expressions ○ Exponents and Powers
3	Math Kit for Class 8	<p>The kit should contain various magnetic boards such as the Algebra Annotator (A), Coordinate System Demonstrator (CL), Geometry Expositor (G), Mensuration Evaluator (M), and Circle Descriptor (C).</p> <p>Along with these magnetic boards, the kit should include accessories like Data Handling Bar Plates, Button Magnets, Smiley Magnets (10 pieces),</p>

		<p>Triangle Plates, one Measuring Scale, Plastic Sticks and Square Plates (25 pieces). The kit should be reusable and safe, with non-toxic materials clearly labeled.</p> <p>Using this kit, students should be able to perform activities covering various topics in their CBSE curriculum. The topics and corresponding activities should include:</p> <ul style="list-style-type: none"> • Rational Numbers • Linear Equations in One Variable • Quadrilaterals • Square and Square Roots • Cube & Cube Roots • Comparing Quantities • Algebraic Expressions • Algebraic Identities • Menstruation • Exponents & Powers • Direct & Inverse Proportion • Factorization
4	Math Kit for Class 9	<p>Using this kit, students should be able to perform activities covering a wide range of topics included in their curriculum. The topics and corresponding activities should include:</p> <ul style="list-style-type: none"> • Number System • Polynomials • Co-Ordinate Geometry • Linear Equation in two variables • Introduction to Euclid's Geometry • Lines and Angles • Triangles • Quadrilateral • Area of parallelograms and Triangles • Circle • Heron's Formula • Statistics
5	Math Kit for Class 10	<p>The kit should contain various magnetic boards such as the Algebra Annotator (A), Coordinate System Demonstrator (CL), Geometry Expositor (G), Mensuration Evaluator (M), and Circle Descriptor (C). Each of these magnetic boards should be at least 283mm * 283mm in size. Along with these magnetic boards, the kit should include accessories like Data Handling Bar Plates, Button Magnets, Smiley Magnets (10 pieces), Triangle Plates, one Measuring Scale, Plastic Sticks and Square Plates (25</p>



		<p>pieces). The kit should be reusable and safe, with non-toxic materials clearly labeled.</p> <p>Using this kit, students should be able to perform activities covering a wide range of topics included in their curriculum. The topics and corresponding activities should include:</p> <ul style="list-style-type: none"> • Real Number • Polynomials • Pair of Linear equations • Quadratic Equation • Arithmetic Progression • Triangles • Co-Ordinate Geometry • Introduction to trigonometry • Circle • Area related to circle • Statistics
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Note :

- Every items/material should be ISI mark (Wherever applicable).
- Bidder needs to submit for every tool, equipment, kit etc., a relevant BIS certification (Wherever applicable) to get Standardised products.
- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

6. Maths School Kit

Scope of work: Maths Lab should be established in each of the 789 schools with the following specifications.

1. Supply of tools for hands on learning.
2. Activity based Video tutorials.

DETAIL SPECIFICATIONS:

Sr. No.	Description	Specifications	Qty
1	9" Geoboard	Should be of 9" transparent square plastic geoboard with a 10x10 pegs array and 8-10 coloured rubber bands	5
2	8" Fraction Geoboard	Should be of 8" two-sided plastic geoboard. One side circular with 17 pegs, the other side square with 25 pegs. It includes 8-10 rubber bands.	5

704

3	X-Y Coordinate Board	X-Y coordinate board should be of size 16x16 cm with transparent movable strips for both X and Y axis. It should also include 30 to 40 pegs and 8 to 10 rubber bands.	5
4	Linking Cube Graph Board with linking cubes set of 100	1 Linking Cubes graph board should be of 15 inches x 15 inches with 10 grooves. Kit also includes 2 cm plastic linking cubes in 10 different colours.	1
5	Shape Master which has wide range of 2D-3D Geometric Set	Set of 11 three-dimensional shapes, each 8 cm in size, including a cube, cone, cylinder, triangular pyramid, square pyramid, pentagonal pyramid, hexagonal pyramid, triangular prism, rectangular prism, pentagonal prism, and hexagonal prism. The set also includes foldable 2D nets and removable bases for each 3D shape.	2
6	Shape Master which has wide range of 2D-3D Flip Chart	Faces, edges, vertices and nets for building 3D shapes	5
7	Volume Relation between Cube and Sphere	The kit should contain a transparent cube with a 9 cm edge, open at the top, and 2 connecting hemispheres with an 8 cm diameter, which can be placed inside the cube. The material thickness for both the cube and hemispheres is 1 mm.	5
8	Geometric Volume Set	Set of 17 transparent three-dimensional shapes, each 5 cm in size, including 2 square prisms, 2 rectangular prisms, 1 pentagonal prism, 2 triangular prisms, 1 square pyramid, 1 triangular pyramid, 1 pentagonal pyramid, 2 cylinders, 1 cone, 1 sphere, 1 hemisphere, 1 hexagonal pyramid, and 1 hexagonal prism. Each shape should have removable base and stopper for easy filling with dry or wet material.	2
9	Hollow Cylinder	Transparent hollow cylinder with a height of 10 cm, an outer diameter of 8 cm, and an inner diameter of 4 cm.	5
10	Hollow Sphere	Transparent Hollow Sphere with a height of 10 cm, outer diameter of 10 cm and Inner Diameter of 6 cm.	5
11	Teacher Geometry Box	Big sized Geometrical instruments – Scale, Protractor, Set Square and Compass	1
12	Trigonometry Board	The set should include a square trigonometry board with dimensions 20 x 20 cm, representing the circular system in trigonometry. It also comes with connectors, pins, a set of rubber bands, and plastic measuring strips.	5
13	Arithmetic Progression Kit	Set of 50 magnetic rectangular foam tiles in two sizes: Type 1: 8.4 x 2.4 x 0.5 cm and	5

		Type 2: 5.8 x 2.4 x 0.5 cm, and 50 magnetic square foam tiles, each 2.4 x 2.4 x 0.5 cm.	
14	Ruler Set	Plastic Flexible Ruler of 30 cm length	5
15	Algebra Tiles	Set should contain 20 small square tiles, 10 rectangular tiles and 5 big square tiles.	5
16	Clinometer Compass	A clinometer of length 25 cm should include a handle, a compass, and a movable needle to indicate different angles.	5
17	Plane Erase Board (Set of 30 Boards)	Set of 30 write-and-wipe A4 size plain, made from 300 GSM laminated card.	1
18	X-Y Dry Erase Board (Set of 30 Boards)	Set of 30 write-and-wipe A4 size double-sided Cartesian axis, made from 300 GSM laminated card.	1
19	Graph Erase Board (Set of 30 Boards)	Set of 30 write-and-wipe A4 size double-sided graph, made from 300 GSM laminated card.	1
20	Fraction Circles	9 Plastic Fraction Circles that includes whole, half, thirds, quarter, fifths, sixths, eighths, tenths and twelfths part of the circle	5
21	Symmetry Kit	It should include a sturdy rectangular base measuring 30 x 15 cm, perfectly sized to securely hold a semi-circular-shaped mirror and a rectangular-shaped mirror. These mirrors should be made with durable, child-safe materials that provide clear reflections. The kit should also include colorful plastic pattern blocks, each with a height of 1 cm, available in various shapes such as triangles, squares, and etc	5
22	Base Ten Blocks	Wooden / plastic model containing blocks as below: 1) 100 pieces of 1 cm x 1cm x 1 cm 2) 20 pieces of 1cm x 1 cm x 10 cm 3) 10 pieces of 1cm x 10 cm x 10 cm 4) 1 piece of 10 cm x 10 cm x 10 cm	2
23	Storage Cabinet	Plastic Storage Cabinet	2
Total Number of items			83

Note :

- Every items/material should be ISI mark (Wherever applicable).
- Bidder needs to submit for every tool, equipment, kit etc., a relevant BIS certification (Wherever applicable) to get Standardised products.

72

- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

7. Science Student Kit

Scope of work: Science kits should be supplied to students along with training, with ten (10) kits each for Classes 6 to 10 to be provided in 789 schools.

Kit Components

- Experiment Materials: Science Kit for each class should have Minimum 10 experiments mapped with curriculum.
- The base material (PVC/Hardboard/ EVA foam /wood etc.) of the kits should be durable, suitable for multiple use.
- Instruction Manual: Step-by-step guides for each experiment, mapped to the CBSE syllabus.

Included Experiments

The experiments should cover a variety of topics in the syllabus for classes 6th to 10th, such as:

- Acid-Base Reactions: Understanding pH levels and indicators.
- Electric Circuits: Basics of series and parallel circuits.
- Electrical properties: Demonstrating the physical and chemical properties of electricity
- Laws of Motion: Demonstrating Newton's laws with simple apparatus.
- Density and Buoyancy: Experimenting with different materials in water.
- Magnetism: Exploring magnetic fields and forces.
- Chemical Reactions: Observing exothermic and endothermic reactions.
- Sound Waves: Studying the properties of sound through various mediums.
- Harmonic motion: Understanding the laws of harmonic motion using a pendulum.
- Work and energy: Understanding energy transfer concepts.
- Light Refraction: Understanding how light bends through different materials.
- Food and Nutrition: Simple experiments to understand the chemistry of our food.

DETAILED SPECIFICATIONS

Sr. No.	Name	Technical Specifications
1	For all Science Kits	<p>The kit should offer the opportunity to explore science and provide students the opportunity to explore scientific concepts through hands-on experiments and interdisciplinary learning. It Develops skills in science, technology, engineering, and mathematics through practical application.</p> <p>The kit should include a variety of pre-cut plain/ Printed sheets (as base) as per the requirement of experiment in different colors and thicknesses, electronic components, non-toxic chemicals & supporting materials, and experiment tools to perform at least 10 experiments. It should include a detailed color manual with step-by-step instructions for each experiment, including illustrations and scientific explanations, detailed video with associated STEM learning outcomes. The kit should be robust, reusable, and suitable for institutional use. The kit should be supported by Videos enabling to learn and use the elements of ideation, critical thinking, creativity & innovation, and collaborative learning. The kit should design with safety using non-toxic materials, clearly labelled, and child-friendly tools.</p>
2	Science Kit for Class 6	<p>The kit should offer the opportunity to explore science and provide students the opportunity to explore scientific concepts through hands- on experiments and interdisciplinary learning. It Develops skills in science, technology, engineering, and mathematics through practical application.</p> <p>The kit should include a variety of pre-cut plain EVA foam sheets in different colors and thicknesses, electronic components, non-toxic chemicals & supporting materials, and experiment tools to perform at least 10 experiments. It should include a detailed color manual with step-by-step instructions for each experiment, including illustrations and scientific explanations, detailed video with associated STEM learning outcomes. The kit should be robust, reusable, and suitable for institutional use. The kit should be supported by Videos enabling to learn and use the elements of ideation, critical thinking, creativity & innovation, and collaborative learning. The kit should design with safety using non-toxic materials, clearly labelled, and child-friendly tools.</p> <p>The kit should be containing the following materials to perform the experiments:</p> <ul style="list-style-type: none"> - An EVA foam pre-cut sheet with a diagram printed on it, and it must include necessary experiment supplies such as soil, filter paper, funnel, paper cup, stirrer, and straw in a separate package with labels. - An EVA foam pre-cut sheet with a diagram printed on it , and it must include necessary experiment supplies such as pins and translucent paper in a separate package with labels.

104

	<ul style="list-style-type: none">- An EVA foam pre-cut sheet with a diagram printed on it and it must include necessary experiment supplies such as mirrors and cardboard pipe in a separate package with labels.- An EVA foam pre-cut sheet with a diagram printed on it, and it must include necessary experiment supplies such as a bulb with holder, cells & holder, key, screws, wires, and screwdriver in a separate package with labels.- The Kit must include necessary experiment supplies such as a stirrer, iodine solution, starch powder, and bowl in a separate package with labels.- The Kit must include necessary experiment supplies such as a bar magnet, iron filling, and paper sheet in a separate package with labels.- The Kit must include necessary experiment supplies such as a bar magnet, iron filling, and paper sheet in a separate package with labels.- An EVA foam pre-cut sheet with a diagram printed on it , and it must include necessary experiment supplies such as a mirror, ambulance sheet, and torch in a separate package with labels.- The Kit must include necessary experiment supplies such as a beaker, beaker cap, buzzer, cell & holder, metal strips, salt, and double side tape in a separate package with labels. <p>The Kit must include necessary experiment supplies such as sodium hydroxide, methylene blue, sugar, bottle, stirrer, gloves, vinegar, baking soda, ballon, and spoon in a separate package with labels.</p> <p>Using this material, students should be able to create at least 10 experiments covering various topics in their curriculum. The topics and corresponding activities should include:</p> <ul style="list-style-type: none">-Sedimentation, decantation & Filtration Process-Pinhole Camera-Periscope-Electric circuit with switch-Starch Test in a Food-Protein Test in a food-Introduction about Bar Magnet-Mirror reflects a beam of light-Conductivity test using different liquids-Reversible and Irreversible reaction
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3	Science Kit for Class 7	<p>The kit should offer the opportunity to explore science and provide students the opportunity to explore scientific concepts through hands- on experiments and interdisciplinary learning. It develops skills in science, technology, engineering, and mathematics through practical application.</p> <p>The kit should include a variety of pre-cut plain EVA foam sheets in different colors and thicknesses, electronic components, non-toxic chemicals & supporting materials, and experiment tools to perform at least 10 experiments. It should include a detailed color manual with step-by-step instructions for each experiment, including illustrations and scientific explanations, detailed video with associated STEM learning outcomes. The kit should be robust, reusable, and suitable for institutional use. The kit should be supported by videos enabling to learn and use the elements of ideation, critical thinking, creativity & innovation, and collaborative learning. The kit should design with safety using non-toxic materials, clearly labeled, and child-friendly tools.</p> <p>The kit should be containing the following materials to perform the experiments:</p> <ul style="list-style-type: none"> - An EVA foam pre-cut sheet with a diagram printed on it and it must include necessary experiment supplies such as a screwdriver, buzzer, cells & holder, metal wire, wires, and double-sided tape in a separate package with labels. - An EVA foam pre-cut sheet with a diagram printed on it , and it must include necessary experiment supplies such as pulley, DC motor, disc, cells & holder, key, screws, and screwdriver in a separate package with labels. - The Kit must include necessary experiment supplies such as a screen, holder, convex lens, and candle in a separate package with labels. - The Kit must include necessary experiment supplies such as a screen, holder, concave lens, and candle in a separate package with labels. - An EVA foam pre-cut sheet with a diagram printed on it , and it must include necessary experiment supplies such as a mirror and torch in a separate package with labels. - An EVA foam pre-cut sheet with a diagram printed on it and it must include necessary experiment supplies such as a transparent glass with 85mm height and 75mm diameter, Y tube, two small balloons and big balloon in a separate package with labels. - The Kit must include necessary experiment supplies such as a stirrer, bowls, citric acid, red litmus, blue litmus, vinegar (CH_3COOH), soap solution, and milk of magnesia in a separate package with labels. - The Kit must include necessary experiment supplies such as a stirrer, bowls, citric acid, pH strip, vinegar (CH_3COOH), soap solution, and milk of magnesia in a separate package with labels.
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		<ul style="list-style-type: none"> - The Kit must include necessary experiment supplies such as thread and paper cups in a separate package with labels. - The Kit must include necessary experiment supplies such as a bar magnet and iron fillings in a separate package with labels. <p>Using this material, students should be able to create at least 10 experiments covering various topics in their curriculum. The topics and corresponding activities should include:</p> <ul style="list-style-type: none"> -Steady hand testing electric game -Newton's Disc -Image formation using Convex Lens -Image formation using concave lens -Convergent and Divergent rays -Mechanism of Breathing -Red and Blue Litmus Test -ph Test -Circuit Making & Switch -Change in the color of copper sulphate react with metal
4	Science Kit for Class 8	<p>The kit should offer the opportunity to explore science and provide students the opportunity to explore scientific concepts through hands- on experiments and interdisciplinary learning. It develops skills in science, technology, engineering, and mathematics through practical application.</p> <p>The kit should include a variety of pre-cut plain EVA foam sheets in different colors and thicknesses, electronic components, non-toxic chemicals & supporting materials, and experiment tools to perform at least 10 experiments. It should include a detailed color manual with step-by-step instructions for each experiment, including illustrations and scientific explanations, detailed video with associated STEM learning outcomes. The kit should be robust, reusable, and suitable for institutional use. The kit should be supported by videos enabling to learn and use the elements of ideation, critical thinking, creativity & innovation, and collaborative learning. The kit should design with safety using non-toxic materials, clearly labeled, and child-friendly tools.</p> <p>The kit should be containing the following materials to perform the experiments:</p> <ol style="list-style-type: none"> 1. Three EVA foam pre-cut sheets with a diagram printed on it and it must include necessary experiment supplies such as ball with, two marbles, thread, bowl and straws in a separate package with labels. 2. Making a Kaleidoscope: An EVA foam pre-cut sheet with a diagram printed on it in size , and it must include necessary experiment supplies such as mirrors, transparent sheets, thermocol balls, and tape in a separate package with labels.

	<p>3. An EVA foam pre-cut sheet with a diagram printed on it , and it must include necessary experiment supplies such as mirrors in a separate package with labels.</p> <p>4. An EVA foam pre-cut sheet with a diagram printed on it, and it must include necessary experiment supplies such as copper wire, balloon, paper foil, transparent sheet, and sandpaper in a separate package with labels.</p> <p>5. The Kit must include necessary experiment supplies such as a stirrer, iron nails, zinc granules, aluminium strips, copper strips, aluminium sulphate, copper sulphate, ferrous sulphate, zinc sulphate, and bowls in a separate package with labels.</p> <p>6. Two EVA foam pre-cut sheets with a diagram printed on it in and it must include the necessary experiment supplies such as a mirror, pins, and scale in a separate package with labels.</p> <p>7. An EVA foam pre-cut sheet with a diagram printed on it, and it must include necessary experiment supplies such as a mirror, pins, protractor, and torch in a separate package with labels.</p> <p>8. An EVA foam pre-cut sheet with a diagram printed on it, and it must include necessary experiment supplies such as a beaker with approx. 100ml volume, beaker cap, copper sulphate, cells, and holder, copper strip and stainless screw in a separate package with labels.</p> <p>9. The Kit must include necessary experiment supplies such as a thread and paper cups in a separate package with labels.</p> <p>10. The Kit must include necessary experiment supplies such as a bar magnet and iron fillings in a separate package with labels.</p> <p>Using this material, students should be able to create at least 10 experiments covering various topics in their curriculum. The topics and corresponding activities should include:</p> <ul style="list-style-type: none"> -Work and Energy Activity -Kaleidoscope -Multiple Images -Electroscope -Relative reactivity of Metal -Study the formation of image in a plane mirror -Calculate angle of incidence and reflection -Electroplating -Toy telephone -Non-contact forces and magnetic lines
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5	Science Kit for Class 9	<p>The kit should offer the opportunity to explore science and provide students the opportunity to explore scientific concepts through hands- on experiments and interdisciplinary learning. It develops skills in science, technology, engineering, and mathematics through practical application.</p> <p>The kit should include a variety of pre-cut plain EVA foam sheets in different colors and thicknesses, electronic components, non-toxic chemicals & supporting materials, and experiment tools to perform at least 10 experiments. It should include a detailed color manual with step-by-step instructions for each experiment, including illustrations and scientific explanations, detailed video with associated STEM learning outcomes. The kit should be robust, reusable, and suitable for institutional use. The kit should be supported by a Videos enabling to learn and use the elements of ideation, critical thinking, creativity & innovation, and collaborative learning. The kit should design with safety using non-toxic materials, clearly labelled, and child-friendly tools.</p> <p>The kit should contain the following materials to perform the experiments:</p> <ol style="list-style-type: none"> 1. The Kit must include necessary experiment supplies such as transparent glass, PVC pipe, balloon, white hard plastic straw, and clay in a separate package with labels. 2. The Kit must include necessary experiment supplies such as 2 Paper cups, 4 Sketch colors, and 2 Filter papers of 110mm diameter in a separate package with labels. 3. An EVA foam pre-cut sheet should have a diagram printed on it in a black color. It must include necessary experiment supplies such as Pendulum bob, Thread, and white hard stick in a separate package with labels. 4. An EVA foam pre-cut sheet should have a diagram printed on it in a black color. It must include necessary experiment supplies such as a CaCO₃ pack in 1 drum vial, 2 empty vials, motor, 2 Cells, cell holder, wire, and small pulley in a separate package with labels. 5. The Kit must include necessary experiment supplies such as balloons, Tape, and thread in a separate package with labels. 6. An EVA foam pre-cut sheet should have a static model of an atom sticker. It must include necessary experiment supplies such as thumbnails, transparent glass or bowl, and thermocol balls in a separate package with labels. 7. An EVA foam pre-cut sheet should have a diagram printed on it. It must include necessary experiment supplies such as beaker, funnel, 2 Filter paper of , 4 white hard plastic sticks, wooden stirrer, and soil packed in a pouch in a separate package with labels.
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6	Science Kit for Class 10	<p>The kit should offer the opportunity to explore science and provide students the opportunity to explore scientific concepts through hands- on experiments and interdisciplinary learning. It develops skills in science, technology, engineering, and mathematics through practical application.</p> <p>The kit should include a variety of pre-cut plain EVA foam sheets in different colors and thicknesses, electronic components, non-toxic chemicals & supporting materials, and experiment tools to perform at least 10 experiments. It should include a detailed color manual with step-by-step instructions for each experiment, including illustrations and scientific explanations and detailed video. The kit should be robust, reusable, and suitable for institutional use. The kit should be supported by a teaching-learning platform (LMS-based Content) enabling to learn and use the elements of ideation, critical thinking, creativity & innovation, and collaborative learning. The kit should design with safety using non-toxic materials, clearly labelled, and child-friendly tools.</p> <p>The kit should be containing the following materials to perform the experiments:</p> <p>1. An EVA foam pre-cut sheet should have a diagram printed on it. It must include necessary experiment supplies such as 4 metal plates, 1 Cell, Copper</p>

12

	<p>wire of 28 gauge, connecting wires, 4 screws, and screwdriver in a separate package with labels.</p> <p>2 An EVA foam pre-cut sheet should have a diagram printed on it. It must include necessary experiment supplies such as bulb, bulb holder, variable resistor, connecting wires, double side tape in a separate package with labels.</p> <p>3. An EVA foam pre-cut sheet should have a diagram printed on it . It must include necessary experiment supplies such as LEDs, Resistors, connecting wires, 2 Cells, cell holder, screws, screwdriver, and aluminium plate in a separate package with labels.</p> <p>4. An EVA foam pre-cut sheet should have a diagram printed on it. It must include necessary experiment supplies such as LEDs, Resistors, connecting wires, 2 Cells, cell holder, screws, screwdriver, and aluminium plate in a separate package with labels.</p> <p>5. The Kit must include necessary experiment supplies such as transparent glass, 2 rods, salt, connecting wires, 2 cells, cell holder, and EVA base in a separate package with labels.</p> <p>6. The Kit must include necessary experiment supplies such as CuSO_4, Na_2SO_4, BaCl_2, Iron Nails, 4 transparent bowls, wooden stirrer.</p> <p>7. The Kit must include necessary experiment supplies such as Citric acid, Vinegar, $\text{Mg}(\text{OH})_2$, Soap Solution, pH paper booklet, and red and blue litmus paper booklet.</p> <p>8. The Kit must include necessary experiment supplies such as Iodine Solution, starch powder, transparent glass, wooden stirrer.</p> <p>9. The Kit must include necessary experiment supplies such Glass slab , pins, Paper, protractor in a separate package with labels.</p> <p>10. The Kit must include necessary experiment supplies such as Iodine solution, starch powder, amylases, pippet, wooden stirrer, and 3 transparent bowls in a separate package with labels.</p> <p>Using this material, students should be able to create at least 10 experiments covering various topics in their curriculum. The topics and corresponding activities should include:</p> <ul style="list-style-type: none"> -Make your own motor -Variable Resistance -Series Circuit -Parallel Circuit -Electrolysis of water -Displacement and Double Displacement Reaction -ph Test & Red and Blue litmus test -Magnetic effect using a bar magnet -Refraction of light through a glass slab
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101

	-Effect of salivary amylases on food
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- Note :**
- Every items/material should be ISI mark (Wherever applicable).
 - Bidder needs to submit for every tool, equipment, kit etc., a relevant BIS certification (Wherever applicable) to get Standardised products.
 - Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

8. STEM School Kit

Scope of work: Science (STEM) Labs/Kits should be established in 789 schools as per the following specifications.

1. Supply of tools for hands on learning.
2. Delivery of activity based video tutorials.

DETAIL SPECIFICATIONS:

Name of Kit	Description	Qty
Strawbot	<p>The kits should feature a robust physical framework constructed from MDF material and connecting parts for other components, providing the necessary structure like a Bat, Swimmer, Crawler, Skipper, Paralympic, etc. The Kit should include MDF sheets (240mm x 100mm x 3mm) cut into specific shapes (O, Y, L, X, T, I, T-Lock, 3 Leg, 1 Leg), bottom plates (80mm x 20mm x 3mm) cut into H shapes, motor arms (25mm x 20mm) in Z shapes, top plates (30mm x 25mm x 20mm) in U shapes, plastic straws (200mm length, 6mm diameter), 3 to 12 V DC, 150RPM two-side shaft BO motors with compatible wheels (70mm diameter, 6mm width, rubber grip).</p> <p>The kit should include all necessary accessories battery casings for two AA cells with switches, standard AA batteries, thin rubber bands (3 inches), DIY craft scissors, and 15cm plastic scales.</p>	4
Electronic Starter Kit	<p>The kit should offer the opportunity to explore working with real electronic components without a soldering iron. Kids work with real electronic components and breadboard is frequently used for prototyping real electronics projects. The kit should have a breadboard, Jumpers, Connectors etc, should be part of the kit. The kit should be a prototyping component Package that has basic components like breadboard, Resistors, Capacitors in variable values, switches, Voltage regulator (7805), timer IC (555), transistor (BC 547), buzzer, different color 5mm LED and Breadboard with a jumper cable bundle. The students will learn multiple circuit fundamentals like current flow, voltage distribution, Series and</p>	4

	<p>parallel, transistors, and logic gates. Many real projects can be created like doorbells, Night lights, water level indicators, and hand dryers.</p> <p>The kit should also have a printed Manual for step-by-step building instructions for at least 10 Projects with material included in the kit accompanied by diagrams, and simulation. circuit explanation and output detailed programming videos with associated STEM learning outcomes. The kit should be robust, reusable, and suitable for institutional use. Audio Visual explanation on clearly understanding the breadboard assembly and its use and explaining different concepts.</p>	
STEM Electronics	<p>The kit should have a power distribution module (onboard 3 inputs and 3 outputs in the form of a JST connector), at least 18 different types of input-output modules. It should be for educational purposes, prototyping, and small-scale development projects.</p> <p>The power distribution module must have a distributing signal and power to up to three other modules. It must have a minimum of three input ports and three output ports. The power distribution module's PCB board must have handle protection, with a minimum size of 59mm x 47mm, and be encased in color-coded rubber or plastic casings with openings for connections. The modular design of the power modules must ensure that all functional components can be connected via JST connectors.</p> <p>The kit should have different types of sensor modules that cover a wide range of sensing capabilities and must have a light sensor, IR sensor, switch, POT, and more. Additionally, the kit should have gate modules like AND, OR, and NOT gates. The PCB board must have handling protection, with a minimum size of 37mm x 27mm, and be encased in color-coded rubber or plastic casings with openings for connections. The sensor module should be designed to be modular, allowing it to be connected via JST connectors with a supporting microcontroller.</p> <p>The kit should have various output modules such as LED modules in different colours, a buzzer module, a motor module, a vibro motor module, and a laser module. The PCB board should have protection for handling, a minimum size of 37mm x 27mm, and be encased in color-coded rubber or plastic casings with openings for connections. The output module is designed to be modular, allowing it to be connected via JST connectors with a supporting microcontroller.</p> <p>The kit packaging must be in a strong cardboard box with a plastic tray. Plastic tray should have separate placeholders for each 18 modules so that these modules remain intact during transportation and later on as well. The box must be designed with separate compartments for the sensors, output modules, power distribution modules, and other blocks. It must have the essentials for powering and connecting various components. These should consist of a power bank, JST wires, and power cables for connecting the power board to other peripherals.</p>	4



Little- Science-Bot	<p>The kit should include a variety of MDF cutouts and components for creating battery-operated models. It contains MDF pieces for different models including cutouts measuring 140x104x3mm, 112x114x3mm, and 92x74x3mm. The kit also includes over 35 unique interlocking pieces such as T Pieces, Motor Arm Pieces, and Linker Pieces for creating rotating legs for a walking dog model.</p> <p>An MDF sheet should be cut into three sizes: 140x107x3mm, 82x72x3mm, and 172x136x3mm for a walking robot. It also needs over 35 unique interlocking pieces such as hands, legs, and the robot face.</p> <p>An MDF sheet needs to be cut into three sizes: 156x154x3mm and 136x152x3mm cutouts for a cart-pushing robot. The robot features over 30 unique interlocking pieces such as wheels, linkers, hands, legs, and a cart.</p> <p>An MDF sheet needs to be cut into three sizes: 188x114x3mm, 146x134x3mm, and 134x102x3mm for a flying dinosaur model. The model has over 35 unique interlocking pieces, including wings with living hinge mechanisms and wheels.</p> <p>An MDF sheet needs to be cut into three sizes: 142x164x3mm, 124x148x3mm, and 163x104x3mm for a walking dino, consisting of over 45 unique interlocking pieces including 16 Teeth Gears, 12 Teeth Gears, and 8 Teeth Gears.</p> <p>The kit should include all necessary accessories candle wax, thin rubber bands (minimum 3 inches), transparent cello tape (at least 15 meters), a plastic geared DC motor (60mm x 20mm x 20mm, 3 to 12 V DC, 150 RPM with dual shafts), a battery holder for two AA cells with a two-way slide switch and cover, standard AA batteries, and a DIY craft scissor. With the help of this kits students can learn different kind of STEM concept like force ,friction and energy conservation etc.</p>	4
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Note :

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9. Sports Equipment


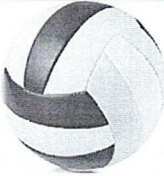


Scope of Work: Sports equipment, with a focus on cricket kits, should be supplied to 789 schools to promote physical education and team sports. This initiative should encourage student participation in outdoor games, enhance physical fitness, and foster team spirit through structured sports activities.

List of items:






Sl. No.	Items	Quantity
1	Sports Kit for Upper Primary Classes	1
2	Sports Kit for Secondary/Senior Secondary Classes	1

Detail Specifications:


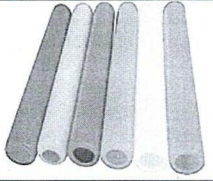





1. Sports Kit for Upper Primary classes

Sl. No.	Item	Specifications	Qty	Image
1	Football 4 No.	Size: 4, Material: Synthetic Waterproof stitched Bladder: Rubber Numbers of Panels: 32 Surface: Smooth Circumference: 60 to 65 cm, Weight with air: 350 to 370 grams	1	
2	Volleyball	Material-PU/Rubber Circumference: 65~67cm Diameter: 20.5~21.5 cm Construction- Pasted Panels-18 Panel Moulded Colour: yellow and blue or multi-coloured Weight: 260~280 grams Winding-Nylon Water Proof Bladder – Rubber	1	
3	Foot pump	Material- Metal, Plastic/Rubber padded Foot operated. Weight – 220 gm or above PSI - 100 or above.	1	
4	Wooden Stump (Set of 6) with bails (4 No.)	Material: Wooden, Size: Above ground 28-30 Inches; Below ground 4 inches, Dia: 1.2 - 1.5 inches, Weight of stump: 300 gm - 500 Gram or above Weight of Bail: 15 - 25 Gram or above	2	






12

5	Wooden Bat 4 No.	Material of Blade: wooden, Sizes: 4, Length 31 inches x Width 3.8 inches, Material of Handle: Wood, Mass of Cricket Bat: 800 - 900 Grams Rubber Grip : Rubber Shape of Handle: Round	2	
6	Wooden Bat 6 No.	Material of Blade : wooden, Sizes: 6, Length 806 mm x Width 102 mm or above, Material of Handle : Wood Mass of Cricket Bat: 1050- 1200 grams Rubber Grip : Rubber Shape of Handle : Round	2	
7	Tennis Ball	Material- Rubber Item Weight - 90 Grams or above Dia: 65 mm \pm 2 mm Ball must be wrapped with coloured felt cloth/fabric.	2	
8	Badminton Racket	Frame: Aluminium Alloy, Stem: Steel, Eyelets : Nylon or Polypropylene. Mass of badminton without gut: 85 to 95 gm, Coating: Aluminium alloy frame shall be anodized. Utility: Training, Handle: Wood, String Material: High Quality Nylon, String Construction: Multifilament, String Warp: Double Warp, No. of holes on racket: 74 or above.	2	
9	Shuttle Cock	Material- Light Cork & Plastic, Head Diameter: 25-28 mm, Overall length: 80-90 mm, Skirt Dia: 58-68 mm, Weight of each cock is 1.5 Gram or Above	6	

12

10	Skipping Rope	Material: Rubber with Wooden/Plastic Handle. Length- 9ft, Weight- 160 Gram or above	2	
11	Relay Baton	Material- Plastic, Length - 290 mm Dia- 40 mm Weight of each Baton - 45 Grams or above	1	
12	Wooden Chess 16"	Material: Wooden 18 mm thick premium quality particle board. Size- 16 inch X 16 Inch, Weight- 1.50 Kg or above Chessmen- 2 set LDPE, Chessmen Weight- 350 Gram or above each set	1	
13	Carrom Board	Material- Wooden, Size: 26 inches X 26 Inches, Carrom coin/goti: 2 set wooden coin/goti of Black and white colour with one red colour (Queen) Striker: 1pc in other different colour Carrom Coin/goti Weight - 100 Gram and above Total Weight- 2-3 Kgs or above	1	
14	Hurdle's 9 Inches	Material : PVC Height (inch) : 9 inch Bottom : 8 inch Width : 18 inches Thickness : 20 mm Weight : 220 to 280 Grams	4	
15	Marking Cones 6 inches	Material- LDPE Length- 6 Inches, Base Dia: 100- 115 mm Weight: 35 Grams or above	4	
16	Marking Cones 9 inches	Material- LDPE Length- 9 Inches, Base Dia- 138 - 155 mm Weight - 70 Grams or above	4	

Handwritten signature or mark.

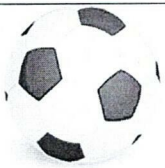
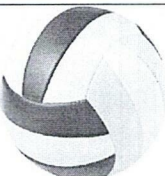
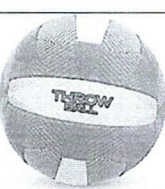
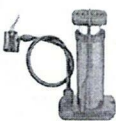

17	Marking Cones 12 inches	Material- LDPE Length- 12 Inches, Base Dia- 165- 177 mm Weight - 110 Gram or above	4	
18	Soccer Cone	Material- LDPE, height: 2 inch, Dia: 7 inches, Weight: 20-30 Gram	1	
19	Frisbee	Material - LDPE/PP Dia: 10.5 inch, Weight 120 Gram	1	
20	Tennikoit	Material: Rubber, Height: 6 inches, Weight 220-250 Gram,	1	
21	Kit Bag	Material: PVC coated fabric with cardboard bottom. Comes with heavy duty zipper and shoulder strap. Approximate Size- Length 2 Ft., Width 1.5 Ft., Depth 1.5 ft. Weight 2 Kg or above	1	

Note :






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101

2. Sports Kit for Secondary/Senior Secondary Schools


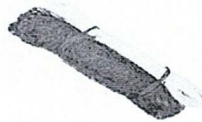
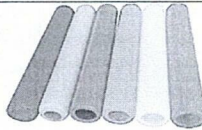

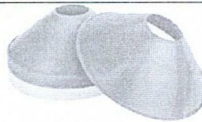
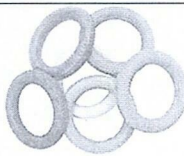

Sl. No.	Item	Specifications	Qty	Image
1	Football No 5	Material- Synthetic Waterproof stitched Leather Size: 5, Bladder: Rubber Numbers of Panels: 32 Surface: Smooth Dia - 21.5 Cm - 22.5 Cm, Weight with air: 400 - 450 Grams	2	
2	Volley ball No. 4	Material: PU/Rubber, Circumference: 65 - 67 Cm, Diameter: 20.5 - 21.5 cm, Construction: Pasted, Panels: 18 Panel Moulded, Colour: Yellow and blue or multi-coloured Weight with air: 260 - 280 gm, Winding: Nylon Winding Water Proof	2	
3	Throw ball No. 5	Material: Synthetic, Panels: 18 Moulded, Circumference: 68 - 70 cm, Construction: Stitched, Recommended for-Match, , Weight with air: 410 - 450 grams.	2	
4	Foot pump	Material- Metal, Plastic/Rubber padded Foot operated. Weight – 220 gm or above PSI - 100 or above.	1	
5	Cricket Bat Full Size	Material of Blade: Wooden, Sizes: 851 mm x 108 mm or above, Material of Handle : Wood Mass of Cricket Bat: 1125 - 1200 grams Rubber Grip : Rubber Shape of Handle : Round	2	

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6	Cricket Bat No. 6	Material of Blade : Wooden. Sizes: 785 mm x 95 mm or above, Material of Handle : Wood Mass of Cricket Bat: 1050 - 1200 grams Rubber Grip : Rubber Shape of Handle : Round	2	
7	Tennis ball	Material: Rubber, Ball must be wrapped with coloured felt cloth/fabric. Ball Weight 120gm \pm 10 gms Diameter 65 mm \pm 2 mm	6	
8	Wooden Stump (Set of 6) with bails (4 No.)	Material: Wooden, Size: Above ground 28-30 Inches; Below ground 4 inches, Dia: 1.2 - 1.5 inches, Weight of stump: 300 gm - 500 Gram or above Weight of Bail: 15 - 25 Gram or above	2	
9	Badminton Racket	Frame: Aluminium Alloy, Stem : Steel, Eyelets: Nylon or Polypropylene. Mass of badminton: 95 to 105 gm , Length - 673 mm X Width - 190 mm , Coating: Aluminium alloy frame shall be anodized. Utility: Training, Handle: Wood, Frem is String: Yes , String Material: High Quality Nylon String, Construction: Multifilament String Warp: Double Warp No. of holes on racket: 74 or above.	4	
10	Shuttle Cock	Material- Light Cork & Plastic, Head Diameter: 25 - 28 mm Overall length 80-90 mm, Feather Dia 58-68 mm Weight of each cock is 1.5 Gram or Above	8	

11	Marking Cones 6 inches	Material- LDPE Length- 6 Inches, Base Dia- 100- 115 mm Weight 35 Grams or above	4	
12	Marking Cones 9 inches	Material- LDPE Length- 9 Inches, Base Dia- 138 - 155 mm Weight - 70 Grams or above	4	
13	Marking Cones 12 inches	Material- LDPE , Length- 12 Inches, Base Dia- 165- 177 mm, Weight - 110 Gram or above	4	
14	Hurdels 12 Inches	Material : PVC, Height (inch) :12 inch, Bottom : 8.5 inch, Width : 18 inches, Thickness : 20 mm, Weight : 300 Grams or above	4	
15	Wooden Chess 16"	Made of 18 mm thick premium quality particle board. Size- 16inch X 16 Inch, Chess Board Material- Wooden Weight- 1.50 Kg or above Chessmen- LDPE, Weight- 350 Gram or above	1	
16	Frisbee/Flying Disk	Material - LDPE/PP, Dia 10.5 inch, Weight 120 Gram	5	
17	Skipping Rope	Material: Rubber Rope with Wooden/Plastic Handle. Length- 9ft, Weight- 160 Gram or above	5	

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18	Stop Watch	Digital	2	
19	Volley Ball Net	Head Band- PVC Net Material- Nylon Weight : 1.5 Kg above	1	
20	Relay Baton set of 6 Pcs	Material- Plastic, Length - 290mm, Dia- 40 mm, Weight of each Baton - 45 Grams or above	1	
21	Carrom Board	Material- Wooden, Size: 34 inches X 34 Inches, Carrom coin/goti: 2 set wooden coin/goti of Black and white colour with one red colour (Queen) Striker: 1pc in other different colour Carrom Coin/goti Weight - 130 Gram and above Total Weight- 4-5 Kgs or above	1	
22	Soccer Cone	Material: Plastic, Height 2 inch, Dia: 7 inches, Weight -20 Gram or above	10	
23	Tennikoit	Material: Rubber, Size: 6 inches, Weight 220 – 250 Gram	2	
24	Kit Bag	Material: PVC coated fabric with cardboard bottom. Comes with heavy duty zipper and shoulder strap. Approximate Size- Length 3 Ft., Width 2 Ft., Depth 1.5 ft. Weight 2.5 Kg or above	1	

12

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10. Development of Playground Facilities

Scope of work: Outdoor and Indoor sports game facilities. Any two of below items should be developed/supplied in 789 schools as per the following specifications.

Outdoor Sports

Detail Specifications:

Sl. No.	Playground	Detailed Specifications
1	Badminton Court Flooring & Fixed Type Poles	Preparation: To clear the area of grass, roots, debris, and any large rocks. Build a sloped sub-base: The court should have a slight slope (about 1–2% gradient) to allow water to runoff naturally. This prevents pooling of water in low areas. Line Marking: To groove the line on the ground according to the standard line marking of the game and fill it with fine lime stone powder. Fixed Type Badminton Poles with Net Standard size : playing area : 44ft x 20 ft <ul style="list-style-type: none">• Signage and Display: Install a signboard panel (minimum 5mm thickness) displaying court guidelines, equipment details, and usage norms.
2	Volleyball Court Flooring & Fixed Type Poles	<ul style="list-style-type: none">• Preparation: To clear the area of grass, roots, debris, and any large rocks. Build a sloped sub-base: The court should have a slight slope (about 1–2% gradient) to allow water to run off naturally. This prevents pooling of water in low areas.• Line Marking: To groove the line on the ground according to the standard line marking of the game and fill it with fine lime stone powder. Fixed Type Volleyball Poles with Net Standard size : Playing area - 59ft x 29.5ft Signage and Display: Install a signboard panel (minimum 5mm thickness) displaying court guidelines, equipment details, and usage norms.

Note :




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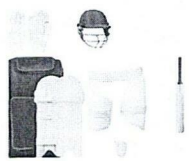
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Indoor – Table Tennis set up & School Cricket Kit

Detail Specifications:

Sl	Playground	Detailed Specifications																															
3	Table Tennis Set up (qty: 2)	Provision of Professional Table Tennis (T.T) Table – - 15mm engineered wooden top with anti glare finish Black Table with 20x30 mm steel frame and 50 mm wheels (8 with locks) to provide stability and easy mobility. 2 TT Rackets, 6 Balls, 1 Table Cover & Clamp Net • Signage and Display: Install a sunboard panel (minimum 5mm thickness) displaying court guidelines, equipment details, and usage norms.																															
	School Cricket Kit	Provision of cricket kit for Primary, Upper Primary and Secondary /Sr Secondary schools. i. Upper Primary Classes: (6 Kits per school) <table> <tr> <th>Sl. No.</th><th>Item</th><th>Specification</th><th>Picture</th></tr> <tr> <td>1</td><td rowspan="8">Cricket Kit (Size-4 No.)</td><td>One Bat- wooden- Bat Size-4 (787 mm x 96 mm)(Length x Width)</td><td rowspan="8"></td></tr> <tr> <td>2</td><td>One Pair of Leg Guard- Length 21 Inches</td></tr> <tr> <td>3</td><td>One Pair of Gloves- Length Approx. 19 Cm</td></tr> <tr> <td>4</td><td>One Elbo guard</td></tr> <tr> <td>5</td><td>One Abdo</td></tr> <tr> <td>6</td><td>One Pair of Thigh guard</td></tr> <tr> <td>7</td><td>One Helmet</td></tr> <tr> <td>8</td><td>One Kit Bag</td></tr> </table> ii. Secondary /Sr. Secondary Classes: (6 Kits per school) <table> <tr> <th>Sl. No.</th><th>Item</th><th>Specification</th><th>Picture</th></tr> <tr> <td>1</td><td>Cricket Kit</td><td>One Bat- wooden- Bat Size-6 (806 mm x 102 mm)(Length x Width)</td><td></td></tr> </table>		Sl. No.	Item	Specification	Picture	1	Cricket Kit (Size-4 No.)	One Bat- wooden- Bat Size-4 (787 mm x 96 mm)(Length x Width)		2	One Pair of Leg Guard- Length 21 Inches	3	One Pair of Gloves- Length Approx. 19 Cm	4	One Elbo guard	5	One Abdo	6	One Pair of Thigh guard	7	One Helmet	8	One Kit Bag	Sl. No.	Item	Specification	Picture	1	Cricket Kit	One Bat- wooden- Bat Size-6 (806 mm x 102 mm)(Length x Width)	
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Sl. No.	Item	Specification	Picture																														
1	Cricket Kit	One Bat- wooden- Bat Size-6 (806 mm x 102 mm)(Length x Width)																															



		2	(Size-6 No.)	One Pair of Leg Guard- Length 24 Inches		
		3		One Pair of Gloves- Length Approx. 21 Cm		
		4		One Elbo guard		
		5		One Abdo		
		6		One Pair of Thigh guard		
		7		One Helmet		
		8		One Kit Bag		

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11. Digital Hardware and Software

Scope of work: Digital hardware and software solutions should be supplied, installed, and accompanied by training to establish ICT enabled Learning labs in 789 schools. The setup should include State of Art Configured Desktops, Printer, Headset, Webcams, Network equipment, Chairs, Tables, Device management Systems, Microsoft Tools for AI programing, Hackathons and administrative tasks.

BOQ:

SL No.	Items	Quantity
1	Desktop	8
2	Printer	1
3	UPS	1
4.	Headset	8
5.	Table	9
6.	Chair	24
7.	Networking Component	1
8.	Electrification, Installation & Teacher training	1



3.4.2. Recurring Cost for ICT lab (All Type for One Year per Lab)

S.NO	Components	Quantity
1	Instructor at school level	1
2	4G Internet Charges	1
3	Cartridges	1
4	A4 sheets 100 bundle Pack -70 GSM	12

The detailed technical specification of each of the item are given below.

Technical Specifications of the Hardware, Software, Peripherals to be supplied: -

1. Desktop:

S.NO	Parameter	Specifications
1	Processor	Minimum x86 architecture or higher 64- bit processor with minimum 4 cores with 2.2 GHz or higher base clock frequency and minimum 8 MB cache or higher.
2	Motherboard	Compatible Motherboard make from the same Desktops OEM (OEM logo must be embossed/Printed on the motherboard)
3	Memory	Minimum 8 GB, DDR4 or Higher expandable up-to minimum 32 GB.
4	Hard Disk	512 GB SSD NVMe or Higher
5	Monitor	Minimum 19.5” with Minimum resolution of 1600 x 900 or higher. Monitor must TCO and Energy Star Certified
6	Ethernet	Integrated Gigabit 10/100/1000.
7	Wi-Fi	Integrated Wi-Fi 5 and Bluetooth 4.0 or Higher
8	Mouse	USB Optical Wired Mouse
9	Keyboard	USB Wired Keyboard
10	Ports	Minimum 6 Ports or more (including minimum 2 x USB 3.1 Type A or higher and 1 x 1 USB 3.1 Type A/Type C port or higher), 1 x HDMI Port, 1 x Display Port/VGA Port 1 x RJ45 Port and 1 x Universal audio port
11	Operating System	Microsoft Windows 11 under STF/Home/SL (Product key should be embedded in BIOS or OEM recovery DVD or option of cloud recovery)
12	Software	MS office M 365 A3
13	Cabinet	Any Form Factor (Micro/Mini/Small/ Tower)
14	Power supply	Compatible Power Supply

16/

15	Certifications	FCC, CE, Energy star, R0Hs, UL/MET, ISO 9001, 14001 and 27001 and Windows 11 certification for the quoted model
16	Warranty	Standard Warranty for 3 Years
17	OEM Ranking	Desktop OEM must be in top 5 in 2024 sales of PC sales in India as per IDC Report
18	OEM and Product Compliance	OEM should comply with GFR- 144(xi) (land border clause)

2. Printer:

Sl. No.	Parameter	Specifications
1	Print technology	Laser
2	Cartridge type	Composite
3	Function	Print/Scan/Copy
4	print speed (A4):	20 ppm or higher
5	Print resolution	1200x1200 dpi or better
6	Processor	600 MHz or higher
7	Connectivity	Hi-Speed USB 2.0 or better
8	Scan type	Flat Bed
9	Scan file format	BMP; JPG; PDF; PNG
10	Memory	128 MB or Higher
11	Input tray	150-sheets or Higher
12	Output tray	100-sheets or Higher
13	Duty cycle	10,000 pages or Higher
14	Starter toner	1500 pages or higher or Higher
15	Warranty	Standard Warranty for 1 Year
15	OEM Compliance	Made in India and OEM should comply with GFR- 144(xi) (land border clause)

3. UPS:

SL. No.	Parameter	Specifications
1	Rating	3KVA/2700W
Input		
2	VOLTAGE RANGE	110VAC+5% - 300VAC+5%
3	FREQUENCY RANGE	40Hz-70Hz
4	PHASE	Single Phase with Ground

5	INPUT POWER FACTOR	≥0.99 @ Full Load
Output		
6	VOLTAGE RANGE	200/208/220/230/240VAC
7	AC VOLTAGE REGULATION	±1%(Battery Mode)
8	FREQUENCY RANGE (Battery Mode)	50Hz+0.25Hz or 60Hz+0.3Hz
9	CURRENT CREST RATIO	3:1
10	HARMONIC DISTORTION	≤2% THD(Linear Load); 4% THD(Non-Linear Load)
11	OVERLOAD CAPABILITY	110% <Load<130% =5 mints, 130% <Load<140% = 1 mint Load>140% =1.5 Secs
Transfer Time		
12	AC MODE TO BATTERY MODE	Zero
13	INVERTER TO BYPASS	<4ms(Typical 2.5ms)
14	WAVEFORM (BATTERY MODE)	Pure Sine Wave
15	EFFICIENCY	90% (AC mode) 89% (Battery mode)
Battery		
16	DC VOLTAGE	72VDC
17	Battery rating	Total 3024VAH (SMF batteries)
Environment		
18	OPERATING HUMIDITY	20-95% RH@ 0-40°C(Non-Condensing)
19	NOISE LEVEL	Less than 50dBA@1Meter(With Fan Speed Control)
20	LED/LCD INDICATION	LCD Indications
Management		
21	communication port	SMART RS-232, USB and SNMP card Slot
22	Degree of Protection	IP-20
23	SAFETY	BIS
24	Certification	ISO 9001, ISO 14001, ISO 14025, ISO/IEC 20000-1, ISO 50001, ISO 45001, ITL9000, CE, ROHS, FCC and E-waste Certificate from CPCB, OEM should comply with GFR- 144(xi) (land border clause)

25	Additional features	<ul style="list-style-type: none"> • Inbuilt OVCD (Over Voltage Cut-Off Device) with Surge Protection. • EMI/RFI Noise Filter available • Generator compatible • Hot Stand-by feature available.
26	Warranty	2 Years on UPS Machine and 1 Year on Batteries

4. Headset:

Over the ear headset with cushion and 3.5 mm jack, 1.5M cable length, 40mm or higher driver, 32 Ohm or higher speaker Impedance, 20Hz to 20 KHz frequency, 98dB sensitivity, Adjustable Mic. OEM should comply with GFR- 144(xi) (land border clause).
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5. Table:

ISO Certified, 600 mm x 450 mm x 725 mm or better having facility for keeping PU, Monitor, Keyboard and mouse (pull tray). Material of table top and keyboard tray -- MDF board of grade SBG II of IS 12406 latest or Pre laminated particle boards (wood product) of grade II type II of IS 12823 latest

6. Chair:

PVC/ Melded chair without arm (ISO certified)

7. Networking Component:

SL. No.	Parameter	Specifications
1	Interfaces	1 x Gigabit Ethernet WAN port
		4 x Gigabit Ethernet LAN port
		1 x power connector
		1 x WPS button
2	Operation Modes	Router mode, Access Point mode and Repeater mode
3	Management	Should have WEB GUI Management and TR-069 client
4	Wireless Standard	IEEE 802.11 ac/n/g/b/a wireless LAN Standard
5	WAN Type	Static IP, Dynamic IP, PPPoE, PPTP and L2TP
6	Antenna	Should have Four external 5 dBi or higher antennas
7	Wi-Fi Data Rate	5 GHz up to 867 Mbps or Better
		2.4 GHz up to 300 Mbps Or Better
8	Advanced Features	Periodic scan of channels, automatic switch to least loaded channel
		Should have Guest Wi-Fi network

		Stateful Packet Inspection (SPI)
		WMM (Wi-Fi QoS)
		DMZ (Demilitarized Zone)
9	VPN	Should Support Site to site IPsec VPN tunnel
10	VPN Pass-Through	Should support L2TP, PPTP, IPsec
11	Security Protocol	WPA/WPA2-Enterprise
		WPA/WPA2-Personal
		WPA3-Personal
		WPS (Push Button Configuration)
12	Certifications	MTCTE, CE, ISO 9001, ISO 27001, ISO 45001, ISO 14001
		OEM should have L2 & L3 technical support (TAC) and Repair centre in India
13	OEM Compliance	OEM should comply with GFR- 144(xi) (land border clause)

Note :

- OEM (Either self or through its bidder or authorized dealer/stockist) should have 5 years' experience of supplying their proposed products in any state/central government/PSUs as on bid submission date.
- OEM should have facility for service centre/call centre at all districts headquarters and State capital.

8. Electrification, Installation & Teacher training:

The basic electricity connection will be provided by the School in the ICT Lab. Other additional electric fitting materials within the computer lab shall have to be made by the agency.

The required internal electrifications with earthing for installation of all the hardware items supplied with proper network configuration as per requirement within the computer lab (ICT Lab) will be responsibility of the bidder. The bidder must ensure necessary safety provisions being taken while carrying out electrification within the lab to avoid any unforeseen event.

(Note: Average Classroom Size is approx. 500 Sq. Ft. which may vary for individual schools.)

Note :

- Every items/material should be ISI mark/ISO Certification (Wherever applicable).
- Bidder needs to submit for every tool, equipment, kit etc., a relevant BIS certification (Wherever applicable) to get Standardised products.
- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

16

12. Language Lab

Scope of work: Language Labs should be supplied, installed, commissioned, and supported with training in 789 schools to enhance English language learning. The lab setup should include the necessary hardware and software to facilitate interactive and immersive instruction focused on listening, speaking, reading, and writing (LSRW) skills. The licensed software should be available and proper installed in all system.

S. No.	Description	Qty. Per Lab
i.	English language Lab Software	1
ii.	Wired Headphones	15
iii.	Tablets	15
iv.	Networking Device for wifi connection	1

DETAILED SPECIFICATIONS –

a. English language Lab Software

Technical Specifications
1. The software should have various levels of logins for Head of Department, Teachers & Students.
2. The Software should work on Desktop PCs, Slim PCs, Thin Clients, and tablets. It will work on Windows, Linux as well as the Android operating systems
3. All the interface of the Head of Department & Teacher should be password controlled. Each student would also be provided with an individual student user id and password.
4. At any given time, multiple teachers should be able to login simultaneously.
5. The software should generate each student’s performance report and the teacher can view it at any given time. The software will be able to generate teachers’ activity reports as well and it is available to the Head of Department.
6. The teacher shall be able to create and assign lessons / works to all or selected students in a group or the entire class and create exams and conduct them based on text / audio-based activities. The teacher can upload files for students to access from their login ids. The teacher will create session modules for students to access a content management library on the student’s dashboard for self-study even when the teacher is not present in class.
7. The software should have teaching content to be used in the classroom and practice material to be practiced by the students in the language lab. It will allow blended teaching methodology, considered the best one for skill-based language learning.



8. The student can perform reading aloud activity for more than one student or whole class at the same time without disturbing the others and record their reading. And where teachers can listen to their reading student wise at any time after the activity and give feedback to individual students.
9. Provision to automatically generate graphical representation on the recorded audio of the learner as against the originals for self-assessment and evaluation. This will facilitate pronunciation related improvement. It will also let a student understand which part of the word, phrase or sentence recorded needs improvement.
10. The software should allow the teacher to have text chat with all the students or a group of students. This could be broadcast mode or personal chat mode.
11. The software should have a provision for talking to a certain student, group of students or broadcast to all the students in the class.
12. The teacher should be able to share their screen with the students or see their screen to monitor the activities.
13. The Software should have 10 levels ranging from pre-A1 to C1 level with substantial content to hone the learner skills and should be based on the Blended Learning Mechanism, i.e. It should have Instructor Lead Teaching (ILT/ Classroom teaching) content as well as Computer Based Teaching (CBT/Lab practice) content. Basic Level should use the contextual learning methodology.
<p>14. The software should consist of a glossary of words with correct pronunciation in the Indian context. The software will have feature where Vocabulary Test can be taken – The activity should allow teachers to easily conduct word quiz -type language learning tests. The system should have a ready word list and students will then need to simply fill in their answers in a dialog that is launched on their screens. The activity should allow teachers to create, launch and save tests, as well as collect results. Teachers should be able to see the individual reports of each student's activity. The content shall have below featured: –</p> <ul style="list-style-type: none"> a. Boggle b. True or False c. Rearrange the sentence d. Fill in the Blanks e. Multiple Choice Question f. Match the Items

12

g. Select Word h. Syllable Breakup i. Punctuation j. Insert Word k. Audio Record Subjective Answers
15. The software should have 3D animated near human looking mouth movements for proper articulation for all 44 sounds. These include the Vowel Sounds – Monophthongs Diphthongs and Consonant sounds. These should be available as front facing and side facing models.
16. It should cater to all the four skills with the following given activities: a. Speaking b. Listening c. Reading d. Writing
17. The software should have 300 learning modules, 6000 exercises/ assessments and 3000 vocabulary words.
18. Train the Trainer program will be provided by a subject matter expert.

b. Wired Headphones

Over the year headset with cushion and 3.5 MM jack, 1.5 M cable length, 40 MM or higher driver, 32 Ohm or higher speaker Impedance, 20 Hz to 20 Khz frequency, 98 dB sensitivity, adjustable mic. OEM should comply with GFR – 144 (xi) (Land Border Clause).

c. **Tablets**

Sl. No.	Parameters	Minimum specification
1	CPU GHz	2 GHz Octa-Core or higher
2	Technology	GSM/HSPA/LTE/5G
3	Operating system & OS Version	Android 13 or higher
4	SIM Type	SS/Micro sim
5	RAM	4 GB or higher
6	ROM	64 GB or above
7	Expandable Memory	1 TB
8	Screen resolution	1340 X 800 resolution or higher
9	Speakers	Dual speakers
10	Screen Type	TFT
11	Display Size	11 inches or higher
12	Camera Rear	8.0 MP or higher
13	Camera Front	2.0 MP or higher
14	Wireless type	802.11a/b/g/n/ac Dual band
15	Battery mAh	Min. 5000 mAh battery or higher
16	Number of Lithium Ion Cells	1
17	Included components	USB Type-C Cable, Ejection Pin, Quick Start Guide (QSG), Travel Adaptor without cable
18	Warranty (Years)	1 or more
19	Certification	BIS, FCC, CB, CE, ROHS, SAR, GMS & EPR
OEM should comply with GFR – 144 (xi) (Land Boarder Clause)		

Note :

- Every items/material should be ISI mark/ISO Certification (Wherever applicable).
- Bidder needs to submit for every tool, equipment, kit etc., a relevant BIS certification (Wherever applicable) to get Standardised products.
- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

13. Musical Instrument

Scope of Work: Functional and age-appropriate musical instruments should be provided in 789 schools to promote music education and creative expression among students. Each school should receive one set of instruments for the Upper Primary level and one set for the Secondary/Senior Secondary level. The instruments should be selected to support both traditional and modern music learning within the school curriculum and co-curricular activities.

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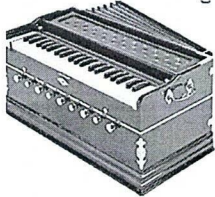


Bill of Material

Sl.		Quantity
i.	Musical Instrument for Secondary/ Sr. Secondary School	01


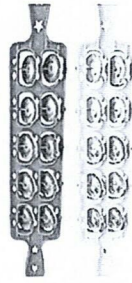
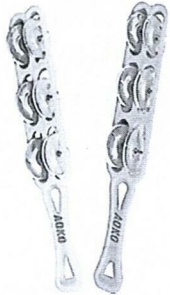

Note: All OEMs should comply with GFR - 144 (xi) (Land Border Clause).

Detailed Specifications

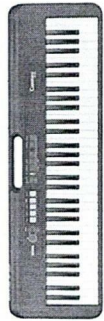

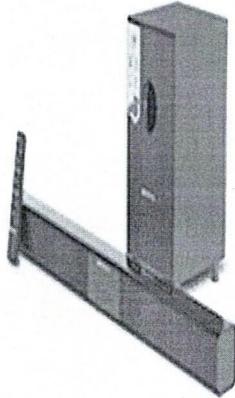
Musical Instrument for Secondary/ Sr. Secondary School

Sl. No.	Name	Specs	Image	Qty
1	Harmonium	Harmonium should be top 3 selling brand in India. Length: 22 Inch, 11.50 Inch Width, 9.5 Inch height, No. of Stoppers 9, No of Keys 42, Body Material Wood, Keys: made of plastic, stopper: made of iron, 3.5 Octave, double bellow, double reed. Weight: 7-8 Kg. Provided with good quality cushioned Box/Case with zip. Warranty - After Sales Service for one year.		1
2	Dafli (Tambourine)	Overall Dia - 8 inch. Plastic Frame thickness 5mm, Polyester sheet film of 125 micron Grooves - 6 nos. 3 steel jingles in each groove, jingle dia - 40 mm, thickness 0.3 mm, Weight: 250 to 350 gm		2
3	Dholak/ Naal	Made of wood & Side base made of goat leather. Length: 15 to 18 Inches, Upper Dia - 7 Inches Lower Dia - 9 Inches, No. of Keys/ nut bolts - 18, Size of keys minimum 2.5 inches, Weight: 3.5 Kg to 4.5 kg. Provided with good quality Box /Case with zip		1


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4	Tabla set	<p>Pair Made of Metal+wood; Metal Tabla Dia 7 Inches, Wooden Tabla Dia 5-6 Inches, Upper base made of goat leather,</p> <p>Weight – 3 to 4 Kg with bag and Accessories with good quality cushioned Box/Case with zip</p>		1
5	Virgin Plastic Zheeka Big 10 jingles	<p>Virgin Plastic body, 10 Jingles made of stainless steel, length 18 Inches, Width 4 Inches. Weight: 180-220 gm</p>		2
6	Virgin Plastic Zheeka Small 6 jingles	<p>Virgin Plastic/ wooden body, 6 Jingles made of stainless steel, length 10 Inches, Width 3 Inches. Weight: 90-150 gm</p>		2
7	Brass Manjira	<p>Manjira made of brass, Size 3-inch dia tied with a white rope, Weight 100-150 gm.</p>		2

72

8	Keyboard 61 keys	61 Keys, Full Size Piano Style Keys, Keyboard with handle to carry, Minimum 32 Polyphony, Minimum 120 tones, Minimum 60 Rhythms, Sustain Required, Reverb: Yes, Speaker Output: 2W + 2W, 2 speakers USB (to Host): Yes (Micro B), At least 10 Hours Battery & Power - AC Adaptor 9 V or higher. Size (W x D x H): 820 x 256 x 73mm or higher, Weight: 2.5 kg to 4.5 kg. Top 3 selling brand in India.		1
9	Bansuri (Flute)	Material - Mild Steel, Length 12 inches, no. of holes 7, Mouthpiece made up of plastic. Weight: 50-60 gm		2
10	Speaker and Mic	<p>PA System - Output Power: 100W or more</p> <p>BT v5.3 or latest HDMI (ARC) Optical IN USB AUX</p> <p>Driver Size: Sound bar 6 cm X 2 or More, Subwoofer 13 cm X1 or more</p> <p>Impedance: Sound bar - 8 Ohm, Subwoofer: 4 Ohm</p> <p>Frequency Response: 20Hz-20kHz</p> <p>S/N Ratio: >70dB</p> <p>Separation: >32dB</p> <p>File Format Support (USB): MP3 Line Input: 3.5mm, Optical IN, HDMI (ARC), Max Supported USB Memory: 32GB or more Speaker with 2 cordless Mic</p> <p>Warranty - 1 year.</p>		1

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11	Gungroo anklet (25 pc per anklet)	Pair of Ghungroo made of brass with 25 bells of 1 cm in each anklet tied with white rope. Weight: 150-200 gm.		2
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Note:


- All OEMs should comply with GFR – 144 (xi) (Land Border Clause).
- Every items/material should be ISI mark/ISO Certification (Wherever applicable).
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- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

14. Outdoor Science Park

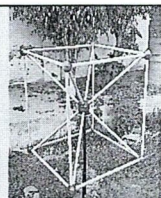
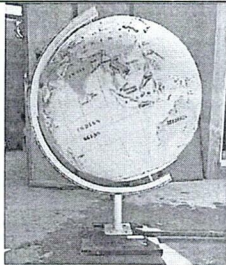
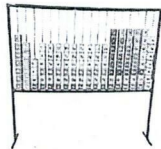
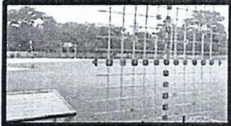
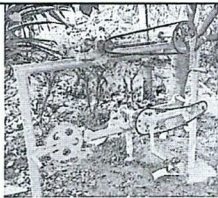
SCOPE OF WORK: Supply and installation of Outdoor Science Parks in selected 38 schools should promote experiential, interactive, and play-based learning through life-size science models. These open-air Teaching-Learning Material (TLM) parks should be designed to make scientific concepts more accessible and engaging for students through practical demonstration and self-exploration.

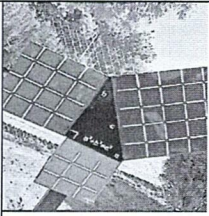

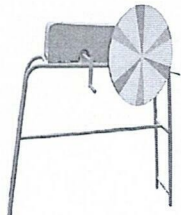

- BEPC will provide a maximum 2000 sq. ft. area for the development of the Outdoor Science Park along with plastic net fencing.
- A list of class-wise experiments should be displayed in the park.
- All models should have variability for different experiments and activities.
- Models/exhibits should be durable and weatherproof for outdoor installation.
- Training videos/ Tutorials may be provided for each exhibit.

List of Equipment:

Sr. No.	Models	Concept	Images
1	Newton's Cradle	Showcases the conservation and transfer of kinetic energy between colliding spheres. Size: Length should be of 4 Ft., Width should be of 3 Ft. and Height 6 Ft. Solid Balls Diameter- 2.5 inch	

10

2	BCC Crystal Structure	BCC Crystal Structure (Body-Centred Cubic) is a type of arrangement of atoms inside a crystal where: Atoms are positioned at each corner of a cube. There is one atom in the exact centre of the cube. Each corner atom is shared with eight neighbouring cubes, so it effectively counts as 1/8th of an Total atoms per BCC unit cell = 2 atoms (1 from the centre + 8 x 1/8 from comers). atom per cube. Equipment comes with a TBS-Mild Steel Base setup, With Gear Mechanism conductivity with 8 gear 3 shafts and coupling set. Smooth corners with Fillet lines. Equipment Occupancy dimensions Height 5.5 -Feet Length 3 feet and width 3 feet approximately. Heavy-Duty ground inlet clamps with dimensions (H-21.50 centimetres by Thickness of 10.15 centimetres). Equipment with Basement.	
3	Time Indicator Globe	Equipment Occupancy dimensions Height 4.5-Feet Length 3 feet and width 3 feet approximately. Heavy-Duty ground inlet clamps with dimensions (H-21.50 centimetres by Thickness of 10.15 centimetres). Equipment with Basement structure inlet clamps with Fine-G-204 Hex Nuts-Hex Bolts and Washers.	
4	Periodic Table	Organizes elements by increasing atomic number and groups them based on similar chemical properties and electron configurations. Height should be approx. (\pm) 1 ft. Occupancy area: 6ft x 4ft Material: - MS painted frame & plastic blocks	
5	Cartesian Plane	Visualizes coordinates and plotting points on a two- dimensional grid. Height should be of 5 ft., and Width – 3 ft	
6	Gear Belt chain drive	Mechanisms that transmit power and motion between shafts, allowing for efficient mechanical movement and speed control. Size should be of 1 x 4 x 6 Ft.	

7	Pythagoras Theorem	Demonstrates the relationship between the sides of a right-angled triangle.	
8	DNA Model	This DNA Double Helix Model stands approx. 5–6 feet tall and is mounted on a sturdy 2.5×2.5 feet painted concrete base.	
9	Newton's Color Wheel Model	It demonstrates the composition of white light. White light is nothing but a mixture of colours. A famous theory is explained by whirling colored wheel. Total Height should be 3 Ft. Occupancy area – 5' x 3'	
10	Wave Motion Model	Node, antinode and collision of two waves can be visualized here. The height should be 8 Ft. Occupancy area – 4' x 4'	

Note:

- **All OEMs should comply with GFR – 144 (xi) (Land Border Clause).**
- Every items/material should be ISI mark/ISO Certification (Wherever applicable).
- Bidder needs to submit for every tool, equipment, kit etc., a relevant BIS certification (Wherever applicable) to get Standardised products.
- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

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15. Band Uniform

Scope of Work: Band uniforms (25 sets per school) should be supplied to 789 schools to enhance student participation in ceremonial, cultural, and national events. The provision of standardized, high-quality band uniforms should aim to instill discipline, pride, and team spirit in school marching bands and musical groups. Each set should contain the following line items: -

Detailed Specifications



Sl. No.	Item name	Material/ Fabric
1	Band coat/jacket	Gavadin
2	Trousers/skirt (trouser for boys	Gavadin
3	Headgear/ P Cap	Wool and cotton
4	Lanyard	Zari and polyester
5	Belt	Cotton mix
6	Gloves (white)	Cotton mix
7	Sashes or cummerbund	Zari and polyester
8	Anklets	Zari and polyester
9	Shoes	Black, standard marching type
10	Socks	Cotton

- Uniforms should be visually consistent with the school’s cultural and institutional identity.
- Designs approved by school committee, leadership and cultural/arts in-charge.

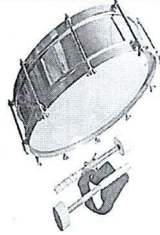

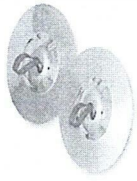
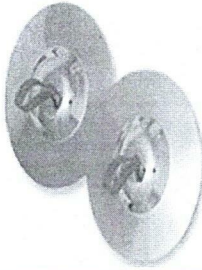

16. Band set

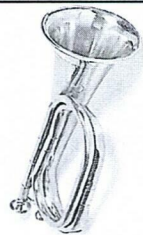
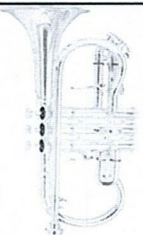


Scope of work: Band instruments should be supplied to 789 schools as part of a complete marching and musical band set. The instruments should be selected to support school parades, ceremonial functions, and cultural activities, fostering rhythm, coordination, and musical discipline among students.

Detail Specifications:

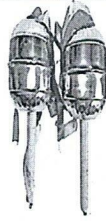
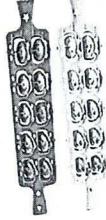
Sl. No.	Name	Specifications	Image	Qty
1	Brass Trumpet	Keys - B-flat , Material brass , number of Piston / valve 3 , finish Golden/ nickle / chrome plating. Bore size : 12-14 mm outer dia / 12-13 mm inner dia, bell dia : 115-125 mm / barrel diameter : 15-20 mm outer dia / 13-15 mm inner dia , barrel length : 115- 118 mm Piston length : 62-65 mm half , 120-126 mm full , length 16-19 inch , width : 5-6 inch , weight 1.200kg - 1.250 Kg Provided with good quality cushioned Box with zip		3
2	Stainless Steel Side Drum with sticks	Drum Material: Stainless Steel, Base -Polyester film of 120 micron, Hooks Material: Brass, Rod material : iron. Accessories-: Belt, a pair of stick depth : 5-6 inch, dia : 12 to 14 inch, Number of iron rods - 8, Weight: 2 to 2.5 kg		8

112

3	Stainless Steel Bass drum/ PT DRUM with beater	Drum Material: Stainless Steel, Base -Polyester film of 120 micron, Hooks Material: Brass, Rod material : iron. Accessories-; Belt, a pair of beater Depth : 9-12 inch. Dia : 24 to 28 inch, Number of Rods: 8, Weight: 3.5 to 4 Kg		2
4	PT Drum Stand	Adjustable height stand made of Metal material, weight – 1 - 2 Kg or higher. Should be easy to assemble or dissemble		1
5	Stainless Steel Cymbals 8"	Material- Stainless Steel tied with rope, Dia 8 inch, Weight: 150-200 gm		3
6	Stainless Steel Cymbals 10"	Material- Stainless Steel tied with rope, Dia 10 inch, Weight: 200-250 gm		3
7	Major Stick/ Leading Sticks	More than 52 Inches height made of canwood, Steel Round of 11 Inches, upper symbol: 2 Inches made of metal, steel Chain rounded, Weight: 550-650 gm		1

8	Brass Bigul	Made of copper & brass with mouthpiece 12 inches, Bell Dia 2 to 3 inches, Weight- 400 Gram Provided with good quality cushioned Box/Case with zip		3
9	Brass Cornet	Keys - B-flat , Material brass , number of Piston / valve 3 , finish Golden, nickle / chrome plating. Bore size : 10-12mm outer dia / 10-12 mm inner dia bell dia : 5 inch / barrel diameter : 18-20 mm outer dia / 14-16 mm inner dia , length 12-13 inch , width : 5-6 inch , weight 1.250 kg Provided with good quality cushioned Box/Case with zip		3
10	Bansuri-Steel (Flutes)	Material – Mild Steel, Length 12 inches, no. of holes 7, Mouthpiece made up of plastic. Weight: 50-60 gm		6
11	Maracas Small	Made of steel and wood, Maximum of 12-14 inches in circumference measured from the midpoint, stainless steel ball with wooden handle fitting. Weight: 250-350 gm		5

102

12	Maracas Big	Made of steel and wood , Maximum of 15-18 inches in circumference measured from the midpoint, stainless steel ball with wooden handle fitting and satin ribbons on the top. Weight: 600-700 gm		3
13	Virgin Plastic Zheeka/ Jhaal 10 jingles	Virgin Plastic body, 10 Jingles made of stainless steel, length 18 Inches, Width 4 Inches. Weight: 180-220 gm		6
14	Hat	Hat for the band leader (fibre and cotton fabric)		1

Note:

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- Every items/material should be ISI mark/ISO Certification (Wherever applicable).
- Bidder needs to submit for every tool, equipment, kit etc., a relevant BIS certification (Wherever applicable) to get Standardised products.
- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

17. Smart board with interactive learning panel

Scope of Work: Smart boards with interactive learning panels should be supplied and installed in 789 schools as per the following specifications. Two sets should be provided in each school.

Each set shall contain below line items -

Sl. No.	Item Details	Qty
1	Interactive Flat Panel 75"	02
2	OPS	02
3	Protective casing for panel	02

4	Web Camera	02
5	1 KVA UPS	02

Detailed Specifications:

1. Display Panel Technical Specifications

- **Size:** 75-inch or 86-inch (Diagonal) Anti-Glare LED-backlit LCD.
- **Resolution:** 4K Ultra HD (3840 x 2160).
- **Brightness:** 400 - 500 nits or higher.
- **Contrast Ratio:** 1200:1 (minimum) or 5000:1 (dynamic).
- **Viewing Angle:** 178° Horizontal/Vertical.
- **Aspect Ratio:** 16:9.
- **Surface Treatment:** 4mm Toughened Glass (Mohs 7H hardness).
- **Panel Life:** Minimum 50,000 hours.

2. Touch and Interaction

- **Technology:** Infrared (IR) - High precision.
- **Touch Points:** 40 points (for simultaneous multi-user writing/gesture recognition).
- **Touch Accuracy:** ≤ is less than or equal to ≤ 2 mm.
- **Tools:** Magnetic Pen/Stylus support (2-4 pens).
- **Features:** Palm erase, gesture recognition.

3. Computing System (Android + OPS)

- **Android System:** Android 13.0 or 14.0 (for panel software).
- **RAM/Storage (Android):** 8GB RAM / 128GB ROM or higher.
- **OPS Module (Windows PC):** Inbuilt/detachable Intel Core i5 or i7 (11th/13th Gen).
- **OPS RAM/Storage:** 8GB/16GB DDR4 or DDR5 RAM and 512GB SSD.
- **OS:** Pre-installed Windows 11 Pro.

12

4. Connectivity and Multimedia

- **Wireless:** Inbuilt Wi-Fi and Bluetooth 5.0+.
- **Inputs:** HDMI 2.0 (x3), VGA, USB 3.0/2.0 (front and rear), Type-C.
- **Outputs:** HDMI, SPDIF, LAN (RJ45).
- **Speakers:** In-built 16W x 2 or 25W x 2 (Stereo Sound).
- **Screen Casting:** Support for casting from mobile/laptop via native app.

5. Specialized Software and Features

- **Whiteboard Software:** Inbuilt interactive whiteboard application with palm erasing, shape recognition, and annotation capability.
- **Dual-Platform:** Seamless switching between Android and Windows (OPS).
- **Content Creation:** Tools for subject-specific (Maths/Science) interactive, virtual experiments.
- **Video Conferencing:** Compatibility with Zoom, Microsoft Teams, Google Meet.

6. Physical, Warranty, and Certifications

- **Mounting:** Wall mount or Floor Mount Trolley.
- **Accessories:** Power cable, HDMI cable, Touch pens, Remote.
- **Warranty:** 3 Years On-site warranty.
- **Certifications:** BIS (mandatory), RoHS, TUV (Flicker Free), Energy Star.
- **Quality Requirement:** "Make in India" compliant.

Web Camera Refer Digital Hardware & Software Section

UPS Refer Digital Hardware & Software Section
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Note:

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- Every items/material should be ISI mark/ISO Certification (Wherever applicable).
- Bidder needs to submit for every tool, equipment, kit etc., a relevant BIS certification (Wherever applicable) to get Standardised products.



- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

18. GREEN BOARDS

Scope of work: - Supply of blackboards/ green boards (8 nos. in each school) in 789 schools.

1. **Supply of Boards:** Providing blackboards/ green boards of size 8 feet by 4 feet.
2. **Material Specifications:** Boards must be durable, scratch-resistant, and easy to clean, with smooth writing surfaces to minimize chalk dust.

ITEM	Description
GREEN BOARDS	Frame Material – Anodized aluminium frame Core Material – Honeycomb board Writing Surface – Resin coated steel sheet Size - 8×4 ft

19. Enhancement of School Aesthetics

Scope of work: Digital Signage systems with Content Management Software (CMS) should be supplied and installed in 789 schools to enhance visual communication and overall school aesthetics. These digital displays should be used for showcasing school announcements, educational content, student achievements, event updates, and government messages in a dynamic and visually engaging format. In Addition to this, bidder should do necessary electrification and room paintings and paste curiosity enabled wall posters.

Detailed Specifications:

Sl. No	Parameter	Specification
1	Diagonal Size	65" Digital Signage
2	Panel Type	E-LED/Direct LED or better
3	Resolution	3840*2160 (4K UHD) or better
4	Dynamic/Native Contrast Ratio	1100:1 or Higher
5	Viewing Angle(H/V)	178:178
6	Display Colour	16.7 M or High
7	Audio	Built in Speakers minimum 20 W or Higher Output
8	Input Type	HDMI x 3 or more
		HDCP 1.4 / 2.2
		USB (1), RF Port -1
9	Duty Cycle	16x7 Hr

7

10	Required Features	USB port lock
		OEM should have own Operating System. And Own manufacturing Unit in India
		OTT apps (Netflix, Prime, Hotstar etc.,) should not be preloaded with OS.
11	File Support	Direct viewing of Images and Video from pen drive
12	External Control	RJ45, Wi-Fi 5, Bluetooth supported
13	Power Consumption (Typical)	200W or lower
14	Standby Mode Power	Consumption should be less than 0.5W
15	Product Safety Certifications	CE, UL, BIS, ROHS/EMC- Class B
16	Factory Certification	TV OEM should have owned Factory BIS, ISO:9001, ISO:14001. ISO 45001
17	Make In India	Yes
18	Warranty	3 Years on-site warranty

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- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

20. Teacher ID card

Scope of work: Standardized ID cards should be provided for all 11,784 teachers to support identity verification, professional recognition, and ease of access during institutional and administrative activities. Each card should include teacher details, a photo, the school name, and necessary authentication elements such as a QR code or barcode, if applicable:

DETAIL SPECIFICATIONS

S.No	Description
1	PVC ID card with VDP as per the specifications below: Card dimensions: 85x54 mm (W x H) Thickness: 0.75 to 0.80 mm Lanyard: 10 mm lanyard with single color printing made of yarn in PP material; Lanyard will have end user logos Cardholder in pp material

2	Web based Portal shall be provided for capturing and managing teacher details to adds efficiency to the process
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21. Student ID card

Scope of work: Provision of standard student ID cards for all 6,24,444 enrolled students to support identification, school record management, and campus safety. Each ID card will include the student's name, photograph, school name, class, and other relevant details in a durable and school-branded format.

DETAIL SPECIFICATIONS

S. No.	Description
1	PVC ID card with VDP as per the specifications below: Card dimensions: 85x54 mm (W x H) Thickness: 0.75 to 0.80 mm Lanyard: 10 mm lanyard with single color printing made of yarn in PP material; Lanyard will have end user logos Cardholder in pp material
2	Web based Portal shall be provided for capturing and managing student details to adds efficiency to the process

22. CCTV Cameras

Scope of work: CCTV surveillance systems should be provided, installed and Maintained in 789 schools to enhance safety, monitoring, and administrative oversight. The system should include essential components for effective indoor and outdoor coverage, ensuring secure data storage and real-time monitoring capability.

DETAIL SPECIFICATIONS:

Item	Description	Quantity
IP/Bullet Cameras	2MP IP Wired Outdoor Bullet Cameras with Night Vision, CMOS Image Sensor, 3.6mm Lens (30Mtr),	5 Nos of Each
NVR	8 Channel Network Video Recorder	1 No
POE Giga Switch	8-Port POE Giga Switch	1 No
Hard Disk Drive (HDD)	1TB	1 No
CAT 6 Cable	As per requirement	
LED Monitor (Optional)	21.5 Inch	1 No

161

Rack 6U	Good Quality Rack for Mounting Equipment with two-sided mounting Fan	1 No
Conduit/Accessories	Includes cable conduits, clamps, junction boxes, connectors, etc.	

Note:

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- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

23. Olympiad for Class VI to XII

Scope of Work: Olympiad examinations in Mathematics and Science should be organized for students of Classes VI to XII in 789 schools. The exams should be conducted offline at the school level to encourage academic excellence, competitive spirit, and analytical thinking among students.

The activity should include preparatory material, participation certificates, and recognition for top performers.

Detailed Specifications:

The bidder should be responsible for below:

- o Development of Exam paper
- o Free Olympiad Book should be given to the students
- o Sending exam paper to the school along with OMR sheets.
- o Checking of answer sheets and preparation of result
- o Medals, trophies and certificates should be given to the toppers (top 3)
- o Certificates should be given to all the Olympiad participants
- o State level awards and certificates are also to the toppers
- o Practice book for the subject chosen to be given to the students participating in Olympiad.
- o School would provide a nomination list of students for conduction of Olympiad.
- o Maximum of 250 children should be able to participate in Olympiad per school.

24. Social Science Kit



Scope of work: Social Science Kits should be supplied, installed, and supported with training in 789 schools to promote hands-on, activity-based learning. The kits should consist of educational models, instruments, and teaching aids to help students understand key concepts through interactive demonstrations. Basic training should be provided to teachers to ensure effective classroom use and integration into lesson plans.

Detail Specifications:

The bidder shall supply one set of the below mentioned line items.

Sr. No.	Product/Item	Specifications	Qty
1	Binoculars	Material: Plastic Magnification: Typically, 8x to 12x. Objective Lens Diameter: 4cm	1
2	Solar System (8 Planets), Motorized Model	Material: Plastic Size: 5 X 9.5 X 5 inch Electrical	2
3	Compass	Material: Stainless steel Size: 3.5 inch	2
4	Solar and Lunar eclipse	Material: Plastic Size: 5 X 9.2 X 7 inch Electrical Model	1
5	Day & Night Apparatus, Electrical Model	Material: Plastic Size: 5 X 9 x 8 inch Electrical Model	1
6	Layer of Sun Model	Material: Plastic, wooden base Size: 12 X 8 Inch, Diameter 11 inch	1
7	Earth layer model	Material: Fibre, wooden base 7.5 X 14.8 X 10.5 inch Diameter: 9 inch	1
8	Volcano	Material: Fiber Size: 7 X 7 X 8 inch	1
9	Seismograph Model	Material: Iron and wood Size: 9X16 X14 Inch	1
10	4 seasons models, Electrical Model	Material: Plastic Size: 5 X 9 X 8 inch Electrical Model	2
11	Phases Of the Moon, Electrical Model	Material: Plastic Size: 5 X 9 X 8 inch Electrical Model	1
12	Wind vane	Material: Base-Cast Iron Arrows- MS Sheet Height: 26.5 inch	1
13	Anemometer simple	Material: Plastic and Metal Height 9 inch	1
14	Rain Gauge	Material: Plastic	1

		Size: Diameter: 5 inch, Height: 11.5	
15	Set of Metals (15)	Fixed on round plastic moulded showcase having dia 225mm and depth 27mm. And a plastic disc carrying different type of metals, showcase can be easily locked and unlocked in showcase by press fitting. Overall dimension 225x27mm	2
16	Sun dial	Material: Aluminium Size: 4.5 X 7 X 5	1
17	Earthquake Model	Material: Wooden Base Size: 10.5 X 16 X 4 inch, 2 layers	1
18	Set of Rocks (15)	Fixed on round plastic moulded showcase having dia 225mm and depth 27mm. And a plastic disc carrying different type of rocks, showcase can be easily locked and unlocked in the showcase by press fitting. Overall dimension 225x27mm	2
19	Set of Minerals (15)	Fixed on round plastic molded showcase having dia 225mm and depth 27mm. And a plastic disc carrying different type of minerals, showcase can be easily locked and unlocked in showcase by press fitting. Overall dimension 225x27mm	2
20	DAM Working Model	Material: MS Sheet Base- Wooden 15.5 X 23.5 X 13.5	1
21	Windmill	Material: Plastic 6 X 9 X 12 inch	1
22	Rainwater Harvesting	Material: Plastic, Iron 15 X 24 X 13 inch Working model with a motor	1
23	Layers of Soil	Material: Fibre with detachable magnetic layers Size: 5 X 9.5 X 10	2
24	Charts on various topics	On 300 GSM Laminated paper 19 X 27 inch	20

Note:

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- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

25. Financial Literacy

Provision of a Financial Literacy Course for students of Classes VI to XII to build foundational awareness of personal finance, savings, digital payments, budgeting, and responsible money management in 789 schools. The course should include modular video lessons, designed for self-

paced learning, and will be uploaded on the school's LMS or digital platform for easy access by students and teachers.

To equip students with essential knowledge and skills in personal finance through a structured, video-based course. The program aims to promote financial awareness, responsible money management, and digital transaction literacy among school students, aligned with 21st-century competency goals in 789 schools. All the videos shall be in both English and Hindi.

The course should be designed for students of **Classes VI to XII**, segmented into three academic levels for age-appropriate content delivery:

Upper Primary – Classes VI to VIII

Secondary – Classes IX to X

Senior Secondary – Classes XI to XII

Course Structure

The course should consist of modular video lessons, each focusing on a core area of financial literacy. Each module should be designed to be self-contained, engaging, and aligned with students' learning levels and to be uploaded in the school LMS. Topics include:

- I. Introduction to Money and Savings**
 - a. Understanding money and its evolution
 - b. Importance of saving from an early age
 - c. Differentiating needs and wants
- II. Budgeting and Expense Tracking**
 - a. Basics of income and expenditure
 - b. Creating a personal budget
 - c. Practical exercises in tracking daily expenses
- III. Understanding the Banking System**
 - a. Types of bank accounts and their usage
 - b. How to open and operate a savings account
 - c. Use of ATM cards, passbooks, and mobile banking basics
- IV. Digital Payments and Online Transactions**
 - a) Overview of UPI, digital wallets, and QR code payments
 - b) Setting up secure transactions
 - c) Cyber safety and precautions for online payments
- V. Loans, Interest, and Insurance**
 - a) Concept of borrowing and lending
 - b) Simple and compound interest explained with real-life examples
 - c) Basic understanding of insurance and its relevance

- VI. **Financial Planning and Investment Awareness**
 - a) Concept of short-term and long-term financial goals
 - b) Basics of investment options like fixed deposits and mutual funds
 - c) The power of compounding and starting early
- VII. **Responsible Financial Behaviour**
 - a) Avoiding impulsive spending
 - b) Understanding credit traps and debt cycles
 - c) Building habits of mindful and ethical financial decisions

26. First Aid Kit

Scope of Work: The selected vendor should be responsible for the supply and delivery of First Aid Kits in 789 schools, ensuring that each kit is fully equipped to address minor injuries and basic medical needs. All components should be within valid expiry dates.

The bidder should ensure proper packaging, labelling, and safe transportation. Additionally, basic operational instructions and maintenance guidelines should be provided for school staff responsible for first aid kit management and replenishment.

Sl. No.	List of Item		Qty
1	Medications (to be administered under qualified supervision)	Paracetamol tablets (500 mg) – pack of 10	2
		ORS (Oral Rehydration Salts) packets	10
		Antiseptic ointment (e.g., Betadine)	1
		Antacid tablets (e.g., Digene) – pack of 10	2
		Anti-vomiting medication (e.g., Ondansetron) – pack of 10	2
		Pain relief gel/ spray (e.g., Diclofenac)	1
		Glucose Chewable Tablet	1
2	Wound Care Supplies	Gauze Swab	5
		Dressing Bandages 5 cm	2
		Dressing Bandages 10 cm	2
		Dressing Bandages 15 cm	2
		Crepe Bandage 10 cm	1
		Adhesive Tape 2.5 cm	1
		Cotton Roll (20 gm)	1
		Tinture Iodine Solution	1
		Antiseptic wipes	1
		Disposable gloves	2
3	Instruments	Scissors (blunt ended)	1

		Tweezers	1
		Digital thermometer	1
		Measuring spoon or cup	1
		Tongue Depressor	1
		Safety pins	1
		Pen Torch	1
4	Additional Items	CPR face shield or mask	1
		Eye wash solution	1
		Burn relief dressing	1
		Instant cold packs	1
		First aid manual	1
5	All the material above to be packed in a sturdy plastic box		

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27. School Magazine

Scope of Work:

An engaging, educational, and age-appropriate monthly magazine should be developed and printed for students in Classes 6 to 8, and 9 to 12 respectively, in 789 schools. The magazines should foster curiosity, reading skills, learning, creativity, and joyfulness while aligning with students’ academic curriculum and interests. Three separate magazines should be created to cater to the distinct learning levels of each group.

Detailed specifications of Magazine:

No. of Pages: 48

Magazine Size: 7.75"X10.25"

Complete printing in four colours

Paper for inside on Glazed Newsprint 56 GSM.

701

Paper for cover 100 GSM Art Paper

Binding: Centre stitch

Bright, colourful illustrations, info graphics, and photos to engage young readers.

Each issue should revolve around a theme to tie content together

Specification of Content for Magazine:

The magazine should cover the contents from topics (not limited to) as below:

Class 6 to 8

Content

1. Mission
2. Vision
3. About us
4. Editorial
5. Notes
6. Little Scientists/Science Junction
 - a. Robotics
 - b. Space & Astronomy
7. Science Spark
 - a. Earth & Environment
 - b. Biology & Life Sciences
 - c. Chemistry in Daily Life
 - d. Physics and Technology
8. Magic of Words
 - a. Public speaking
 - b. English language & Grammar
 - c. Learn Spoken English
9. Kindness Corner
 - a. Moral Values & Life skills
 - b. Skill Development & Activities
10. Cyber Corner
 - a. Computer & Technology
 - b. Artificial Intelligence
11. Knowledge Nest
 - a. Theories and Principles of Maths and Science
 - b. What is Surgical Strike

12. Brain Booster Zone
 - a. Quiz of the Month
 - b. Curiosity Corner
 - c. Journey to the Poles
 - d. Invention of the Wheel
13. Fit & Fun
 - a. Sports & Fitness
 - b. Creativity Corner (student drawing, art picture)
14. Feedback previous edition

Class 9 to 12

Content

1. Mission
2. Vision
3. About us
4. Editorial
5. Notes
6. Master Mind Tips
 - a. Combined Practice Set – JEE/NEET/NTSE
 - b. JEE Pattern-Based Practice Set
 - c. Conquer Exam fear
7. Brain Booster Zone
 - a. Current Affairs & General Knowledge
 - b. Important Static Current GK
 - c. Did you Know/Facts
8. Higher-order thinking problems
9. How to Manage School & Coaching Together
10. How to Manage Stress, Sleep and Screen Time
11. International Science based Awards
12. Knowledge Nest
 - a. Awards & honours
 - b. BPSC
 - c. Civics & Constitution Basics for Students
 - d. Constitution Knowledge
13. Interview Section
14. Leadership of Top Scorers
15. Toppers' Talk
 - a. Career Guidance
 - b. Communication tips

- c. Counselling tips
- 16. Creativity Corner (student drawing, art picture)
- 17. Feedback previous edition

28. PM SHRI Selfie Point

The PM SHRI Selfie Point should be visually impactful, student-centric installation designed to capture the spirit of transformation, innovation, and national pride under the Pradhan Mantri Schools for Rising India (PM SHRI) initiative in 789 schools. It should serve as a dedicated space for students, teachers, and visitors to capture memorable moments, fostering a sense of pride and belonging within the school community.

Design and Structure: Vibrant, modern, and student-friendly design reflecting the PM SHRI mission.

Materials: Durable, weather-resistant, and eco-friendly materials suitable for outdoor conditions.

Branding: Prominently display the PM SHRI logo, motivational themes, and school-specific branding if required.

Safety: Ensure sturdy, safe, and child-friendly construction with no sharp edges.

Anchoring: Provide secure installation with proper base support and weatherproof coating.

Bidder should submit the 4 designs for approval and upon approval, bidder should supply the same to school

29. Health Devices

Scope of work: Supply of Health devices in 789 schools as per below specifications:

Item List:

Sl. No.	Item Details	Qty
1	Blood Pressure Monitoring Machine	01
2	Oximeter	01
3	Nebulizer	01
4	BMI Calculator Machine	02
5	Health Monitoring Software	01

Detailed specifications:

S. No.	Item Name	Technical Specifications
1	Blood Pressure Monitoring Machine	LCD Digital Display Measurement Method: Oscillometric method Measurement Range: Pressure: 0 to 299 mmHg Pulse: 40 to 180 beats/min Accuracy: Pressure:±3mmHg, Pulse: ±5% of display reading
4	Oximeter	SpO2 and pulse rate measurement, OLED display, auto shut-off, battery operated, and fingertip design.
5	Nebulizer	Compressor-based, suitable for children, noise level < 60 dB, medication cup capacity ~10 ml.
6	BMI Calculator Machine	<p>The BMI Machine Should have the Features:</p> <ol style="list-style-type: none">1. Load cell based weight measurement2. Ultrasonic based height measurement <p>Specifications:</p> <ol style="list-style-type: none">1. Design should be using Micro controller2. Measurable Weight upto 150 Kg3. Measurable Height upto 210 cm4. Display -7 Segment Bright Red LED5. Self-Weight - 20 Kg Approx6. Built with rugged Metallic Structure7. Operating Power- 230v / 50hz Ac
7	Health Monitoring Software	<p>A Health Monitoring System for school to be designed to track and improve the health, nutrition, and overall well-being of children. Here are the key features such a system should include:</p> <p>1. Child Health Tracking Growth Monitoring: Height, weight, BMI tracking with automated alerts for malnutrition.</p> <p>2. Digital Record Keeping & Reporting</p> <p>Cloud-Based Data Storage: Secure and centralized data management.</p> <p>Real-Time Data Entry via Web/Mobile App: Facilitates easy updates by school.</p> <p>Automated Reports & Dashboards</p>



Note:

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- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

30. Innovative Learning Tools

Scope of Work: Provision of Humanoid Robot at 789 schools.

Detailed Specifications:

Sl. No.	Name	Specifications	Qty
1	Humanoid Robot	<ul style="list-style-type: none">• WMR• Minimum 3 Ft Height• High torque motors• Industry-grade wheels• Fixed hand• Mild steel Body• Powder coated with white and blue color• Wireless Controlled• OCU• Lead Acid Battery• Fixed Head• 12 Facial Expressions• On/Off Switch• Battery Level Indicator• Robot Battery Charger	03

Note:

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- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).



31. Gamified Learning

Scope of Work: Lab should equip students with practical skills in interactive learning using game-based platforms, simulation tools, and digital content for hands-on engagement in concept reinforcement and skill development through gamified experiences. No. of Schools – 789.

Detailed Specifications:

S.No		Feature	Description
1	Gamified Learning Tool-Qty 1 per school	Chemistry Resource Pack	Explore elements, compounds, and chemical reactions. Conduct virtual experiments using a periodic table and lab tools.
		Custom Blocks for Educators	Special blocks to: Restrict movement, Preserve structures, Designate build zones.
		Lesson Library	Access to 600+ ready-to-teach lessons across subjects: STEM, History, Language Arts, Math, Climate Science, and more.
		AI and Cyber Safety Modules	Lessons on AI literacy, digital citizenship, and cybersecurity.
		3D Exporting	Export student creations for use in Remix 3D or other 3D modeling tools.

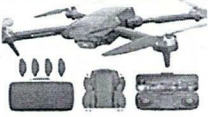
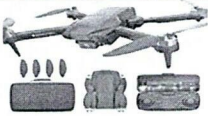
Multiplayer Collaboration	Supports up to 30 students in a single world without needing a separate server. Enables cross-platform play across Windows, macOS, iPad, and Chromebook. Ideal for group projects, team-based challenges, and esports programs.
Code Builder	Integrated coding environment supporting: Block-based coding (Make Code), JavaScript, Python. Students can press 'C' in-game to launch the coding interface.
Immersive Reader	Built-in tool that reads text aloud and translates it. Supports language learners and students with reading difficulties.
Classroom Mode	Companion app for teachers to: View a map of the world, Monitor student locations, Teleport students, Use a chat window for communication.
Assessment Tools	Camera and Portfolio tools allow students to document their work. Book & Quill lets students write reflections or reports in-game.
Non-Player Characters (NPCs)	Teachers can create NPCs to: Provide instructions, Share links to external resources, Guide students through lessons.

109

32. Drone Training

Scope of work: Supply of drone (Type 1 – 10 kits and Type 2 –10 kits) in 789 schools as per following specifications.

Detailed Specifications:

S. No.	Product Name	Specifications	Snap
1	Nano Programmable Drone – Type 1 (Without Camera)	<ul style="list-style-type: none">• Ultralight DIY nano quadcopter drone• Size : 10X10cm motor to motor• All up weight: 50-90 grams• 4 motors, 4 propellers, flight controller with Wi-Fi Receiver• Rechargeable battery and wireless control• Used for basic drone programming and flight control exercises• Block/ Android based programming support for the beginners	
2	Drone – Type 2	<p>Nano quadcopter drone extension (with motor, propellers , battery and carbon fibre frame and without flight controller) to convert into a drone with 50 gram of payload and 14 mins of flight time.</p> <ul style="list-style-type: none">• Dimensions:20X20cms motor to motor• All up weight: 100-150 grams• Flight time: 14 mins• Compatible with 40X40 mm programmable flight controller• Include manual to assemble and fly	

- Study Material

Activity books with step-by-step instructions for 8 to 10 practical experiments

Covers topics like basic flight mechanics, programming, and real-world applications of drones

- Training & Setup

Online/Offline training content module provided for teachers and students

Installation and demonstration videos of complete drone should be provided

Note:

- **All OEMs should comply with GFR – 144 (xi) (Land Border Clause).**
- Every items/material should be ISI mark/ISO Certification (Wherever applicable).
- Bidder needs to submit for every tool, equipment, kit etc., a relevant BIS certification (Wherever applicable) to get Standardised products.
- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

33. Mentorship Programme

The School Mentorship Program should be designed to support students' academic, social, and emotional development by training them by trained mentors. The program should aim to create a safe, inclusive, and supportive environment where students can build confidence, improve performance, and develop life skills. No. of Schools - 789

Deliverables:

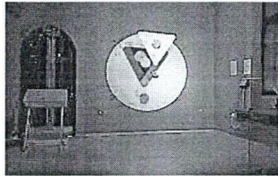

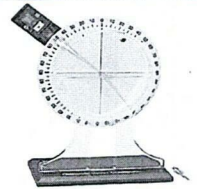
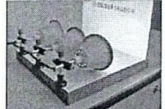

Sr. No.	Topics to be covered	Qty
1	Quarterly lectures on the topics below: <ul style="list-style-type: none">• Academic Support & Study Techniques• Life Skills (Time Management, Communication, Goal Setting)• Career Awareness (STEM, vocational, entrepreneurship, government jobs)• Socio-emotional Support• Exposure to real-world professions and success stories	20
2	Mentorship program handbooks	20
3	Quarterly group activities and workshops physically in the school	4
4	Quarterly and annual progress logs and evaluation reports.	1


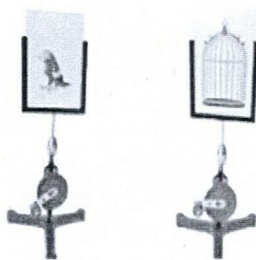
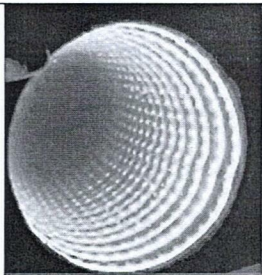
34. Science and Math Curiosity Programme

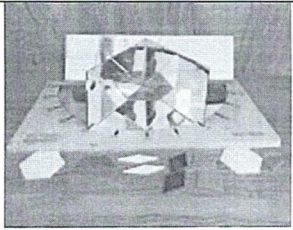

Scope of Curiosity Lab – Science & Mathematics

Science Curiosity Labs should be established in 789 schools to provide an interactive, hands-on, and concept-driven learning space where students can explore, question, and discover scientific and mathematical principles. These labs should include educational tools, DIY kits, models, visual aids, puzzles, and challenge-based learning zones that foster curiosity, analytical thinking, and problem-solving skills.


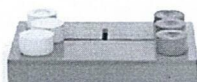

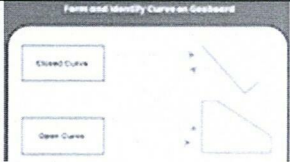


S.no	Tool Name	Specifications	Qty	Image
1	Light and Optics (Dark Room)			
A	Dark Room Infrastructure	Creating a fully enclosed space with no external light leakage. Light blocking fabric curtains should be installed with rods for demonstrating optical experiments.	1 Unit	
B	Light and Optics kit	The Light and Optics Demo Kit should include a laser ray box, an adapter to power the laser ray box, 9 different lens shapes, 1 mirror, 2 arcs, and a manual.	2	
C	Laser optical Tank	Tank should be of 8" Dia x 14" height	1	
D	Colour Shadow	Dimension should be 90mm Dia 500mm depth, come in 3 Colour lights Red, Blue & Green for showing shadow.	1	
2	Illusion and Visual Perception Zone			
A	Funny Mirror	It should include wall-mountable or free-standing mirror. Suitable for regular classroom/lab,use; lightweight and impact-resistant	2	

B	Persistence of Vision	<p>The Zoetrope should be made on plastic moulded round container having slots on upper side, after slots 6mm border in container for better result. On bottom of container fixed barring should be there which is easily fixed in plastic moulded piler with plastic fly nut size 22mm Dia 18mm height (Accuracy +- 10%)</p>	1	
C	Parrot in a cage.	<p>This apparatus should feature a base supporting two rods, each connected by rotating discs. These discs can be turned using a wooden handle. A second wooden handle is provided for manoeuvring the entire apparatus. The top of the apparatus should include a card holder. It also comes with laminated square cards that display visual illusions.</p>	1(6 key cards)	
D	Infinity Tunnel	<p>An infinity tunnel model in a physics lab typically should consist of a series of parallel mirrors facing each other with a light source placed at one end. When an object is placed between the mirrors and the light is turned on, multiple reflections occur between the mirrors, creating the illusion of an endless</p>	2	

		<p>tunnel of light. This phenomenon demonstrates concepts related to optics, such as reflection, refraction, and the behaviour of light waves. It can also serve as a visual representation of principles like infinity, recursion, and the nature of perception.</p> <p>Apparatus Should consist of plastic container having Outer Dia mini 100 mm and inner Dia 100 mm depth of container - 70mm.</p>		
E	Corner Mirror	<p>The corner mirror with math shapes is an educational tool combining a mirror with geometric shapes. It should allow users to explore reflections and symmetry while manipulating the shapes. This interactive learning aid facilitates understanding of spatial relationships, symmetry concepts, and geometric properties in a hands-on and visually engaging manner.</p>	1	
F	Kaleidoscope	<p>It should be made from high-quality, shatter-resistant acrylic, these lightweight mirrors are safe and built to last, making them perfect for entertainment venues or home use Dia-70mm and length of 300mm.</p>	2	

12

3	Mathematics Zone			
	Puzzle Challenging Zone			
A	Tower of Brahma	Made up of 5mm multi-colour plastic/wooden material packed. Three spokes puzzle with five discs of different diameter. Base size 25cm X 08cm	2	
	Parking Puzzle	It should be made up of 5mm thick multi-colour wooden Size 16cm X 10cm X 2 cm high	2	
B	Pegboard Puzzle	It should be made up of 5mm multi-colour wooden, eleven spokes puzzle with five discs of black and five discs of white colour of 1cm diameter and 5mm height. Every disc should have central hole of 1.5 mm diameter. Every Spoke made of wooden. Spoke's height out of base should be 6mm with 2mm diameter. Base size should be 30 cm x 6 cm	2	
C	Activity Worksheets for theorems	It should include laminated, reusable worksheets aligned to major geometry theorems (e.g., Pythagoras, Triangles, Circles).	1 Set	

Images are indicative.

Note:

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- Every items/material should be ISI mark/ISO Certification (Wherever applicable).

12

- Bidder needs to submit for every tool, equipment, kit etc., a relevant BIS certification (Wherever applicable) to get Standardised products.
- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

35. Furniture for Students

Scope of work: Furniture for students should be supplied in 789 schools as per the following specifications. One hundred (100) student dual desks should be provided for classrooms in each school.

Detailed Specifications:

S. No.	Description	Qty
1	Dual Desk manufactured in knockdown construction. The overall dimensions of desk will be W 1050mm x D 890mm x H 760/452mm	100

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36. Lab Equipment (Biology)

Scope of Work: Biology lab equipment should be supplied in 179 schools.

Detailed Specifications:

Sl. No.	Name of Item	Complete Description	Qty
1	Kit Box	12 mm. thick wooden ply outer box size 350mm. x 320 mm x 250mm.depth with door. Inside the box three pocket one side and one for a microscope. locking system and handle in the top. painted in teak colors.	2
2	Compound Microscope	ISI marked microscope: metal body, overall height approx. 320 mm, base 125 mm x 200 mm. Achromatic good quality lenses. Two	1

101

		Objectives: 10x & 40x. Two Eyepieces: 10x & 15x having coarse & fine adjustment knobs & fixed condenser.	
3	Glass micro slides	Standard glass item 75mm. x 25mm x 1mm. thick.	2
4	Pasteur Pipette (Dropper)	Low Density Poly Ethylene (LDPE), capacity 03 mL.	2
5	Washing Brush	Soft hairs. Micro test tube brush.	2
6	Razor Blade	Stainless steel. standard size	2
7	Micro Test Tubes	Borosilicate glass, diameter 10 x 45 mm. height with rim,	2
8	Test tube holder	Length 200 mm, to hold the test tubes upto 10 mm dia.	2
9	Beaker 50 mL.	Borosilicate glass, capacity 50 with 10mL graduation.	2
10	Beaker 10 mL.	Borosilicate glass, capacity 10 mL, dia 25mm x 34 mm height	2
11	Magnifying Lens	Aluminum made two folding type first fold attached with convex lens. Folding size 32mm. x 22mm	2
12	Watch glass	Soda glass, diameter 50 mm.	2
13	Needles	Standard, length 110 mm, with plastic handle.	2
14	Forceps	Stainless steel, length 100 mm.	2
15	Blotting paper	Standard quality. In square shape 100 x 100mm.	2
16	Test tube rack	Perspex sheet size 100 mm X 27 mm X 12 mm. 04 holes to hold Micro Test Tubes.	2
17	Wash Bottle	LDPE, capacity 125 mL.	2
18	Surgical Scissor	125 mm, one prong blunt and other pointed, standard.	2
19	Glass rod	Solid glass rod dia 5mm. x 170mm.	2
20	Filter paper	Ordinary. Circular of dia 100 mm	2
21	Measuring Cylinder (10 mL)	High Density Poly Ethylene (HDPE), capacity 10 mL.	2
22	Cotton	Mini cotton role 50g.	2
23	Muslin cloth	Fine cotton cloth 150x150mm. Piece.	2
24	Painting brush	01 number size with Fine heir	2
25	Spring balance	A.B.S, open type, capacity 250 g graduation in steps of 10 g on one side on front face and Newton's on the other side on front face.	2
26	Measuring Pan with Holder	Plastic pan, dish type dia 80mm. with wire holder.	2

104

27	Laboratory Stand Assembly	G' clamp, 50 mm jaws, maximum opening 40 mm, with two locking screws and holes. HDPE MS rod dia 10 mm x 300 mm long, Boss	2
28	Steel rod Clamp Boss Head	head and laboratory clamp.	2
29	Assembly Boiling tube with cork fitted glass tube	Borosilicate boiling glass tube dia 25mm. x 150mm.length with rim. And assembled cork with bore dia 5mm.x 140mm.length glass tube fitted in the cork bore.	2
30	Tripod		2
31	SPIRIT LAMP		2
32	Test tube 20mL	Borosilicate boiling glass tube dia 25mm. x 150mm.length with rim.	2
33	W- Tube	Borosilicate glass, 2 mm thick x 8 mm dia having length of arm 75 mm with wide mouth in one arm.	2
34	Thread	Small real cotton thread	2
35	Petridish	Borosilicate dia 90mm. x 16mm. depth.	2
36	Cover glasses	Microscopic cover glass 18mm.	2
37	Thermometer (F0)	Specification: Small, durable glass or digital thermometer Size: 15–20 cm length Typical Use: Suitable for experiments involving temperature measurements.	4
38	pH Paper (Acid & Base Both) (2 to 11)	Specification: Standard pH paper strips for measuring acidity and basicity. Size: Each strip is typically 7x7 cm Typical Use: Used in acid-base titrations, testing liquids, or soil testing.	4
39	Sieve Set	Specification: Set of sieves with varying mesh sizes (typically 10 cm to 20 cm in diameter). Size: Diameters of 10 cm, 15 cm, and 20 cm for common laboratory use. Typical Use: For separating mixtures, such as in soil studies or when working with powders.	2
40	Reagent Stand	Specification: Sturdy, adjustable stand for holding glassware and chemical reagents. Size: Approximately 30 cm in height Typical Use: Holds test tubes, flasks, and other laboratory apparatus during experiments.	2

16

41	Light Binocular Microscope	Specification: Binocular microscope with adjustable magnification of 40x to 400x. Size: Compact body with an arm length of 25–30 cm. Typical Use: For biological studies such as cell examination, studying tissue samples, and microorganisms.	2
42	T.S. Blastula Mammalian	Specification: Transverse section of a mammalian blastula (a developing embryo). Size: Mounted on a standard glass microscope slide (7.5 x 2.5 cm). Typical Use: For studying early embryonic development in mammals.	4
43	Leech	Specification: Preserved leech specimen for dissection or anatomy study. Size: Typically around 5–10 cm in length, preserved in formalin. Typical Use: Used for studying the anatomy of invertebrates, including body structure and	4
44	Prawn	Specification: Preserved prawn specimen, typically dissected for anatomical study. Size: Length around 8–12 cm, preserved and mounted on a slide. Typical Use: Used for studying arthropod anatomy, including its exoskeleton and organ systems.	4
45	Octopus	Specification: Preserved octopus specimen, typically dissected for studying morphology. Size: Average size is 10–15 cm, preserved in formalin or alcohol. Typical Use: Used for morphological studies, including the study of its limbs, nervous system, and overall body structure.	4
46	T.S. Testes of Grasshoppers	Specification: Transverse section of testes from grasshopper. Size: Mounted on a standard glass slide (7.5 x 2.5 cm). Typical Use: For studying reproductive organs and comparing them with other organisms.	4

119

47	T.S. Testes of Mice	Specification: Transverse section of testes from a mouse. Size: Mounted on a standard glass slide. Typical Use: Used to compare mammalian reproductive structures.	4
48	T.S. Ovary of Grasshoppers	Specification: Transverse section of ovary from a grasshopper. Size: Mounted on a standard glass slide. Typical Use: For studying female reproductive anatomy of invertebrates.	4
49	T.S. Ovary of Mice	Specification: Transverse section of ovary from a mouse. Size: Mounted on a standard glass slide. Typical Use: Used to study the ovary structure of mammals.	4
50	T.S. Blastula Mammalian	Specification: Transverse section of a mammalian blastula. Size: Mounted on a standard glass slide. Typical Use: For studying embryonic development in mammals.	4
51	Different Stages of Mitosis & Meiosis Slide	Specification: Slide showing various stages of mitosis and meiosis. Size: Mounted on a standard glass slide. Typical Use: Used for studying cell division processes in biology classes.	4
52	Blood Corpuscles	Specification: Prepared slide showing different types of blood corpuscles (red and white blood cells, platelets). Size: Mounted on a standard glass slide. Typical Use: For studying the structure and types of blood cells under a microscope	4
53	Skeleton	Human skeletal system should be made of plastic of 2 ft height	2
54	Symbiotic association	Root of nodules of leguminus plant	2
55	Flash card modles	Homologus and analogus organ	2
56	Brain	Human brain 3D model should be fixed on a stable base of 240 x 240mm.	2

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57	Heart	The model should have a plastic base measuring 4 x 4 inches, with a metallic rod that supports a detailed structure of the heart. It should illustrate the heart's internal anatomy, including its four chambers: the right atrium, right ventricle, left atrium, and left ventricle. The model also demonstrates how blood flows through these chambers and valves.	2
58	Excretory system	Excretory system should be on a base of size 30 x 12 inch	2
59	Human Nervous System	Human Nervous system should be fixed on wooden base with key card pasted on base of dimensions 36 x 12 inch	2
60	Plants & animal kingdom	Should Provide the Information	2
61	Eye model	A human eye model should be mounted on a plastic base of size 6"x 6" and should represent the internal structures of the human eye, including the lens, retina, and optic nerve.	2
62	Ear model	This model should have three different parts: the outer ear, the middle ear, and the inner ear mounted on a plastic base measuring 9.5 x 5.5. Height of the model should be at least 5.5 inches. The human ear model should demonstrate the anatomy of the ear and how it detects sound waves and converts them into electrical signals for the brain.	2
63	Mendelian chart	As per Room Size	2

Note:

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22

37. Lab Equipment (Chemistry)

Scope of Work: Chemistry lab equipment should be supplied in 185 schools.

Detailed Specifications:

Sl. No.	Name of Item	Complete Description	Qty
1	Micro Test Tube	Borosilicate glass, diameter 10 x 45 mm height with rim	2
2	Test Tube Holder	Length 200 mm, to hold the test tubes upto 10 mm dia.	2
3	Test Tube Stand	Perspex sheet size, 100mm x 27mm x 12 mm height with four blind holes to hold micro test tubes dia 10mm.	2
4	Dropper with Rubber Bulb	Rubber bulb with 32mm x dia 6 mm. Glass tube, overall dropper size 125 mm.	2
5	Glass Rod and Stirring	Glass rod Dia 4 mm x 100 mm in length	2
6	Spatula	Overall size 104mm spoon size 9 x 7 mm. Stainless steel	2
7	Beaker (10 mL)	Borosilicate 10 mL with rim. dia 25mm x 34mm height.	2
8	Funnel	Borosilicate top dia. 40 mm.	2
9	Dry Cell Holder	Cell holder for 4 'D' type cells. Box outer size 135 mm x 75 mm x 35 mm. height with cover.	2
10	Torch Bulb with Holder	Screw type bulb holder with 3 V	2
11	Beaker (50 mL)	Borosilicate glass, capacity 50 mL with 10mL graduation.	2
12	Measuring Cylinder (10 mL)	Height density polyethylene (HDPE) capacity 10 mL	2
13	W- Tube	Borosilicate glass, 2 mm thick x 8 mm dia having length of arm 75 mm with wide mouth in one arm. ass	2
14	Tripod		2
15	Spirit Lamp		2
16	Laboratory Stand	MS rod Dia 10 mm x 375 mm long with base attach with G-clamp and Boss Head.	2
17	Litmus Paper	Red and Blue colors.	2
18	Watch Glass	Soda glass, Dia 50 mm x 2 mm thick.	2
19	China Dish	Bowl, outer diameter 70 mm / 75mm.	2
20	Magnet	Size 75 mm x 12 mm x 08 mm, red colour N and S pole mentioned Alnico.	2
21	Thermometer (Laboratory)	Glass, alcohol filled, -10° C to 110° C, graduation 1° C with card board/plastic cover and cotton at both ends.	2
22	pH Paper	pH 1-11, paper box containing, 10 booklets	2
23	Metals (Zn, Cu, Fe,	Strips, dimension 80 mm x 5 mm, x 1mm.	2
24	Emery Paper and Sand paper	A4 size sheet of each	2
25	Iron Nails	Length 50 mm	2
26	Fe- Filings and Zn dust	Packed in plastic container .	2
27	Filter paper	Ordinary. Circular of dia 100 mm	2
28	Micro Test Tube Brush	Plastic, Soft Hair, 120mm in length.	2
29	Dispensing Bottle	Low density poly ethylene, capacity 15mL dia 30mm. with screw cap and nozzle.	2
30	Vials	Low density poly ethylene, 55mm. height x dia 15 mm.	2
31	Double mouthed flask	Borosilicate. Thickness 1.5 mm with one mouth dia 26 mm x 25 mm height (with rim) and outer dia of nozzle 06mm to 08	2

		mm x 28 mm length. Bulb outer dia 50 mm with overall length 110 mm. As per sample	
32	Measuring Cylinder	Plastic, transparent with built in base, 100 mL graduation (min 1 mL), marking with 10 to 100mL.	2
33	PIPETTE 25ML (BOROSILICATE)	Material: Borosilicate glass, Graduation: 0.1 ml	2
34	MEASURING CYLINDER 200ML	Material: Glass/Plastic, Graduation: 1 ml/0.5 ml	20
35	REAGENT BOTTLE 500ML	Material: Glass, Narrow neck, Stopper	20
36	CHROMATOGRAPHY PAPER	Material: High-quality cellulose paper	2
37	CHROMATOGRAPHY CHAMBER	Material: Glass/Plastic, Capacity: 500 ml–1 L	10
38	MORTAR & PESTLE	Material: Ceramic/Glass, Size: 50–200 ml	4
39	BUNSON BURNER/SPRITE LAMP	Material: Metal (Brass), Fuel: Gas	10
40	SPRITE	Material: Glass/Metal, Fuel: Alcohol	1LTR
41	TEST TUBE (BOROSILICATE)	Material: Borosilicate glass, Capacity: 10–100 ml	200
42	TOUNGE	Material: Stainless Steel	20
43	CHEMICAL BALANCE (ELECTRONIC)	Type: Electronic, Capacity: 2 kg, L.C. 0.1gm (100mg).	2
44	CONICAL FLASK 250ML	Material: Borosilicate glass, Volume: 250 ml	2
45	IGNITION TUBE	Material: Borosilicate glass	2
46	PH CHART	Type: Paper or digital	2
47	BURRETE 100ML (BOROSILICATE) WITH GLASS STOPPER	Material: Borosilicate glass, Capacity: 100 ml	10
48	THERMOSTATE	Type: Analog/Digital	4
49	DROPPER	Material: Glass/Plastic, Capacity: 1–3 ml	20
50	dil- Hydrochloric acid	Concentration: 0.1 M–6 M	500ML
51	conc- Hydrochloric acid	Concentration: ~12 M	500ML
52	dil- Sulphuric acid	Concentration: 0.1 M–6 M	500ML
53	conc- Sulphuric acid	Concentration: ~18 M	500ML
54	dil- Nitric acid	Concentration: 0.1 M–6 M	500ML
55	conc- Nitric acid	Concentration: ~14 M	500ML
56	Acetic acid	Concentration: 99–100%	500ML
57	Oxalic acid	Solid or aqueous solutions	500 G
58	Sodium hydroxide	Concentration: 0.1 M–6 M	500 G
59	Ammonium hydroxide	Concentration: 0.1 M–6 M	500ML
60	Potassium hydroxide	Concentration: 0.1 M–6 M	500 G
61	Ammonium acetate	Solid or aqueous solution	500 G
62	Ammonium chloride	Solid or aqueous solution	500 G

63	Ammonium carbonate	Solid	500 G
64	Ammonium molybdate	Solid	25G
65	Ammonium oxalate	Solid	500G
66	Ammonium sulphate	Solid	500G
67	Barium chloride	Solid or aqueous solution	500G
68	Bromine water	Concentration: ~0.2 M	500ML
69	Chlorine water	Concentration: Saturated solution	500ML
70	Copper sulphate	Solid or aqueous solution	250GM
71	Dimethyl glyoxime	Solid	50GM
72	Disodium hydrogen phosphate	Solid	500GM
73	Ferric chloride	Solid or aqueous solution	500GM
74	Iodine solution	Concentration: ~0.1 M	125ML
75	Lead acetate	Solid or aqueous solution	250GM
76	Lime water	Saturated solution of calcium hydroxide	500ML
77	Litmus solution (blue)	pH indicator	125ML
78	Litmus solution(red)	pH indicator	125ML
79	Methyl orange	Concentration: 0.1%	500ML
80	Potassium chromate	Solid or aqueous solution	250ML
81	Potassium dichromate	Solid or aqueous solution	500ML
82	Potassium ferrocyanide	Solid or aqueous solution	250GM
83	Potassium iodide	Solid or aqueous solution	100ML
84	Potassium permanganate	Solid or aqueous solution	250GM
85	Potassium thiocyanate	Solid or aqueous solution	125ML
86	Phenolphthalein	Concentration: 1%	125ML
87	Silver nitrate	Solid or aqueous solution	125ML
88	Starch solution	Concentration: ~1%	125ML
89	Sodium carbonate	Solid or aqueous solution	500GM
90	Sodium bicarbonate	Solid or aqueous solution	500GM
91	Sodium nitropruside	Solid or aqueous solution	50GM
92	Zinc dust	Fine powder	100GM
93	Copper turning	Solid	100GM
94	Ferrous sulphate	Solid or aqueous solution	500GM
95	Nessler's reagent	Prepared solution	100ML
96	Potassium nitrate	Solid	500GM
97	Calcium carbide	Solid	100GM
98	Ethanol	Concentration: 70–100%	250ML
99	Ferric chloride	Solid or aqueous solution	500GM
100	Sodium hydrogen carbonate	Solid or aqueous solution	500GM
101	Sodium nitrate	Solid	120GM
102	β- Naphthol	Solid	50GM
10	Ceric ammonium nitrate	Solid or aqueous solution	50GM
104	2,4-DNP reagent	Prepared solution	50GM
105	Fehling's solution A	Prepared solution	500ML

76/

106	Fehling's solution B	Prepared solution	250ML
107	Schiff's reagent	Prepared solution	125ML
108	Acetone	Liquid, Concentration: Pure	500ML
109	Tollen's reagent	Prepared solution	75ML
110	Molisch's reagent	Prepared solution	125ML
111	Iodine solution	Concentration: ~0.1 M	250ML
112	Glucose	Solid or aqueous solution	250ML
113	α - Naphthol	Solid	50GM
114	Benedict's solution	Prepared solution	500ML
115	Starch solution	Concentration: ~1%	125ML

Note:

- All OEMs should comply with GFR – 144 (xi) (Land Border Clause).
- Every items/material should be ISI mark/ISO Certification (Wherever applicable).
- Bidder needs to submit for every tool, equipment, kit etc., a relevant BIS certification (Wherever applicable) to get Standardised products.
- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

38. Lab Equipment (Physics)

Scope of Work: Physics lab equipment should be supplied in 190 schools.

Detailed Specifications:

Sl. No.	Physics Tools	Specification	QTY
1	Cone Run Uphill	The set should include a wooden cone of Dia 3 inches, V shape wooden stand with dimensions 5x18 inch. The "Cone Runs Uphill" apparatus demonstrates the concept of the centre of mass. The conical shape of the double cone causes it to sink toward the wider end of the V-shaped rails, creating the illusion that it rolls uphill, even though its centre of mass is moving downward.	2
2	Wave Dynamic Model	The kit should include high-quality materials such as a wooden base, plastic balls with steel hooks, and string lengths for varied wave properties. Must have safety features and be easy to set up for repeated use.	1

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3	Reflection Physics Kit	This apparatus designed to demonstrate the reflection of light in a plane mirror. The setup should include a plane mirror mounted on a stable base, an adjustable light source, and a protractor or angle measuring device. The mirror's surface is precisely aligned to ensure accurate reflections. The light source allows for controlled incidence angles, and the protractor measures the angle of incidence and reflection.	1
4	Play with colour shadow	It should contain three laser lights, wires, and a power supply board, measuring 6 x 6 x 3 inches. This apparatus demonstrates how objects can cast shadows with varying colours based on the light they block.	1
5	Newton Cradle	Newton's Cradle Apparatus should consist of a wooden base measuring 6 x 6 x 1 inches, and a horizontal metal stand from which small balls with a diameter of 18 mm are suspended by strings, resembling a pendulum setup.	1
6	Fleming Left Hand Rule	This apparatus should feature a transformer-like setup with a vertical rod 6.5x5x7 inch and inbuilt power supply for easy use. Fleming's Left-Hand Rule tells the direction of the force exerted on a current-carrying conductor in a magnetic field. By using the rule, you can determine how the force acts on the conductor: your forefinger indicates the direction of the magnetic field, your middle finger shows the direction of the current, and your thumb points in the direction of the force or motion experienced by the conductor	1
7	Fleming Right Hand Rule	This apparatus should feature a transformer-like setup with a vertical rod 6.5x5x7 and inbuilt power supply for easy use. Fleming's right-hand rule describes the direction of force on a current-carrying conductor in a magnetic field: Point your thumb in the direction of the current, your index finger in the direction of the magnetic field, and your middle finger will show the direction of the resulting force.	1
8	Hydro Dynamics	Hydrodynamics works by using the energy of moving or falling water to turn a turbine, which then drives a generator to produce electricity. This tool should consist of a wooden/plastic base (8.5 x 6.5 inches), two wooden/plastic poles, a 250 mL plastic beaker, a metallic turbine, a pipe, and a voltage output monitoring device.	2

9	Newton's 2nd Law	This tool should consist of a metallic rod with a spring wound around it attached to the plastic base (9 x 3 inches) and a plastic slider to push the spring. Newton's Second Law Apparatus is designed to demonstrate newton second law of motion which states that how the motion of an object is affected by forces.	1
10	Induced Current	The apparatus features a plastic base should be of 4 x 3 x 1 inches with a coil of insulated copper wire wound on a cylinder with terminals, two LED bulbs, and magnets indicating the north and south poles. This apparatus demonstrates the concept of induced current in a conductor due to a changing magnetic field. Induced current occurs when a conductor is exposed to a varying magnetic field, as described by Faraday's Law of Induction	1
11	Demagnetizing and Magnetizing Coil	The Demagnetizing and Magnetizing Coil apparatus should feature a solenoid wound with insulated copper wire and should mounted on a base (11.5 x 6 x 0.5 inches). It includes a switch and a metallic rod. Magnetizing coils generate a magnetic field through an electric current, aligning the magnetic domains within ferromagnetic materials to magnetize them. These coils are essential in devices such as transformers, electric motors, and magnetic recording equipment. Conversely, demagnetizing coils use alternating current (AC) to reduce or eliminate the magnetism of materials.	1
12	Electric Bell	The Electromagnet and Magnetic Effects Apparatus should consist of a wooden base measuring 12 x 5 cm, which supports a standing wooden block measuring 20 x 12 cm. This block holds a coil of wire and a magnet, forming an electric circuit to demonstrate electromagnetism and the magnetic effects of current. When current flows through the coil, it generates a magnetic field, turning the coil into an electromagnet. The setup allows for experimentation with magnetic field strength, the interaction between electric currents and magnets, and the visualization of concepts such as electromagnetic induction and the relationship between current and magnetic fields.	1

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13	Visual Illusion	This apparatus should feature a metallic base (5 x 5 x 13 inches) supporting two metallic rods, each connected by three rotating discs. These discs can be turned using a wooden handle. A second wooden handle is provided for manoeuvring the entire apparatus. The top of the apparatus includes a card holder. It also comes with laminated square cards that display visual illusions.	1
14	Electric Motor	The electric motor converts electrical energy into mechanical energy through electromagnetic principles. It should consist of a copper wire, a metallic case, a plastic base (4.5 x 4.5 x 4 inches) and a fan.	1
15	Ampere Law	It should include heavy brass/steel wire, one large compass, and three small compasses. To demonstrate Ampere's Rule, arrange the compasses around the wire, connect the wire to a power supply, and turn it on. The electric current will cause the compass needles to change direction.	1
16	Battery eliminator	It should be of size: 7.5 x 5 x 6 inches	1
17	Ohm's law apparatus	For demonstration of Ohm's law. This completely self-contained apparatus has all the necessary components for performing experiments. It should have 4mm socket terminals provided for connecting the resistance. On varying the flow of current using the knobs provided the corresponding voltage reading can be had from the voltmeter. Circuit diagram should be printed on top of the enclosure operates on 220V AC. Plastic moulded box dimension – 240X165X37mm.	1
18	PN Junction Apparatus	Instrument should comprise of two DC Regulated Power Supplies 0-2VDC & 0-100 VDC, two dual range meters for voltage & current measurement, PN Junction Diodes mounted behind the panel, connections of Supplies, Meters & Diodes brought out at 4 mm Sockets. Plastic moulded box dimension -: 240X165X37mm	1
19	Newton's coloured disc	It should be mounted on stand with driving wheel, belt and handle export quality, The Newton color disk, also known as Newton's disk or Newton's color wheel, is an optical demonstration tool that illustrates the concept of color mixing and the nature of white light	1



20	Parallelogram apparatus	Parallelogram Law Apparatus consisting of a baseboard, pulleys on clamps, and hangers with slotted weights. Constructed with durable, rust-resistant materials suitable for repeated educational use.	1
21	Resonance Apparatus	All metal should be fitted on heavy cast iron base with two levelling screws. Pipe Dia 1". Resonance apparatus is used to study various phenomena such as the resonance of strings and air columns, the resonance in mechanical systems, and the behaviour of oscillating systems under different conditions	1
22	Spring Constant	The apparatus should consist of a spiral spring about 25mm in diameter and 10cm long. The upper end of the spring is suspended from chuck nut and lower end is provided with small pointer which moves over a vertical wooden meter scale. The lower end is also provided with hook for carrying weights. All this setup is provided on a heavy metal base and with weights.	2
23	Resistance box 500 ohm	Accurately calibrated Resistance Coils should be enclosed in a teak wood polished case with Heavy Bakelite top and rectangular brass blocks. 22X10X11 cm, A typical resistance box, should include the 500-ohm version, consists of a set of resistors that can be connected in series or parallel, allowing the user to select the desired resistance by adjusting switches or dials. These resistors are often precision-built to ensure that the resistance values are accurate and stable over time. The resistance values are usually marked on the box, and the user can choose specific values by flipping switches that connect various resistors together in the circuit.	2
24	Rheostat 12"	Slide wire rheostats are in a variety of resistance & different current carrying capacities 31 x 10 x 6 cm, rheostat is a type of variable resistor should be designed to adjust the resistance in an electrical circuit, allowing users to control the flow of current. It is commonly used in both educational and experimental settings for demonstrating and studying the relationship between voltage, current, and resistance in electrical circuits.	2

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25	Vernier Callipers	Typically ranges from 0 mm to 150 mm (6 inches), though larger callipers can measure up to 300 mm, 600 mm, or more. Should be durable and resistant to rust and wear. Lightweight but less durable (for lower precision applications), Vernier callipers are precision measuring instruments used to measure the length, width, depth, and internal and external dimensions of an object with high accuracy.	2
26	Screw Gauge	Brass Body should be with steel screw of 0.5 mm pitch, thimble with ratchet stop, range 0 to 25 mm, reading to 0.01 mm, in plastic pouch, a screw gauge is a highly accurate and reliable tool used for measuring small dimensions such as the diameter or thickness of objects. With its finely threaded screw and precise scales, it provides measurements with great accuracy, often to the nearest hundredth of a millimetre.	2
27	Spheres set of 6	Laboratory Grade should have set of six metal spheres or pendulum bobs. List of Metals should include: one piece each of brass, aluminium, copper, zinc, iron, and lead.	2
28	Prism	Glass prism, A prism is a transparent optical object, should be typically made of glass, with flat, polished surfaces that are angled to each other. The most common type of prism is the triangular prism, which has two triangular bases and three rectangular sides	2
29	Half meter scales	Should be made in good quality wood, 1/2 meter, graduated in centimetres and millimetres, one edge reading 0 to 50	5
30	Meter scales	A meter scale should have 100 divisions, with each division being 10 centimetres. Each centimetre is further divided into 10-millimetre units. A meter scale can measure the length and distance of different items up to 1 millimetre material wooden.	5
31	Galvanometer	For D. C. measurements, Scale 35-0-35. For D.C. use only, with a permanent magnet, spring-controlled movement, jewelled bearings, hard polished pivots, and knife edge pointer. Each meter should be mounted on a plastic/acrylic stand with color-coded terminals	2
32	Voltmeter	The word 'voltmeter' is an abbreviation for the word 'voltmeter meter' Volt, A voltmeter is an essential instrument used to measure the electrical potential difference, or voltage, between two points in an electrical circuit	2

109

33	Ammeter	An ammeter is an instrument for measuring the current flowing through a live circuit. The word 'ammeter' is an abbreviation for the word 'ampere meter' 5 amp,	2
34	Plug keys 1 Way	One way copper plug key switch should include two, 4mm terminals, and one removable plug (with plastic guard). Fitted on a sturdy base. Useful in classroom physics experiments and provides an interesting way to complete a circuit in electrical demonstrations. Base measures 3" x 2".	2
35	Plug keys 2 way	Two-way copper plug key switch should include two, 4mm terminals, and one removable plug (with plastic guard). Fitted on a sturdy base. Useful in classroom physics experiments and provides an interesting way to complete a circuit in electrical demonstrations. Base measures 4" x 2".	2
36	Concave lens	20FL, A concave lens, also known as a diverging lens, is a type of optical lens that should be thinner at the centre than at the edges. It is characterized by its ability to diverge light rays that pass through it, causing them to spread apart.	5
37	Convex lens	20FL, A convex lens, also known as a converging lens, is an optical lens that should be thicker at the centre than at the edges. It is designed to converge (bring together) light rays that pass through it. Convex lenses are typically made of transparent materials like glass or plastic and are widely used in optical instruments such as eyeglasses, microscopes, cameras, and telescopes.	5
38	Concave mirror	Concave mirrors reflect light inward to one focal light. Therefore, they are mostly used to focus light. A concave mirror should show different image types depending on the distance between the mirror and the object, A concave mirror is a curved mirror that has an inward-curved reflecting surface, resembling the shape of a spoon.	5
39	Convex mirror	Convex mirrors always form virtual, erect, and diminished images, regardless of the object's position. They are commonly used in applications requiring a wide field of view, such as rear-view mirrors and security mirrors, A convex mirror should be a type of curved mirror whose reflecting surface is outwardly curved, resembling the shape of the exterior of a sphere.	5
40	Plane mirror	A plane mirror is a mirror should be flat (planar) reflective surface, smooth mirror with a reflective surface that forms images by the reflection of light. The surface of a plane	5



		mirror should typically made of glass or another transparent material that has been coated with a highly reflective material, such as silver or aluminium, to create a clear, sharp reflection.	
41	Glass slab	A transparent glass slab with a ray of light falling on it makes a normal shift in optics. The surface of the glass, as well as all materials, is not perfectly flat and smooth; 100 x 60 x 18mm, a glass slab is a fundamental tool in optics and physics, providing a simple yet effective way to explore the behaviour of light as it passes through different media.	2
42	Magnet kit	A magnet kit should be collection of various types of magnets and related tools designed to help demonstrate and explore the principles of magnetism in physics. These kits are commonly used in educational settings, such as schools or science labs, to help students understand magnetic fields, forces, and the behaviour of magnetic materials.	1
43	Commutators	A commutator should be a rotary electrical switch in certain types of electric motors and electrical generators that periodically reverses the current direction between the rotor and the external circuit. It consists of a cylinder composed of multiple metal contact segments on the rotating armature of the machine.	1
44	Drawing board	12"x18" wooden, the drawing board in a physics lab should be typically made of smooth, durable materials like wood, drawing board is often part of the setup when creating technical diagrams or schematics for experiments in mechanics, optics, electromagnetism, and other branches of physics.	1
45	Slotted weight	100 g	2
46	V - stand (lens holder)	A V-stand (lens holder) should be a wooden stand designed to securely hold lenses for optical experiments. It has an overall size of 50x65x110 mm, making it stable and durable. The stand is ideal for supporting convex or concave lenses during refraction and focal length studies. Its wooden construction ensures minimal interference with optical observations.	2

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47	Plano convex lens	A Plano convex lens should be a transparent glass lens with one flat and one convex surface. It is primarily used to focus or converge light beams in optical instruments. The lens is made of high-quality glass, ensuring clarity and minimal aberration. It plays a crucial role in experiments related to focal length and image formation.	1
48	Semi-circular glass slab	A semi-circular glass slab should be a transparent optical component made of high-quality glass. It is used in experiments involving refraction, total internal reflection, and light deviation. The curved surface allows controlled bending of light rays, making it essential for studying critical angles. Its glass construction ensures durability and accuracy in optical studies.	2
49	Lens holder	A lens holder should be a plastic stand designed to securely hold optical lenses in position. It has an overall size of 120x35x75 mm, making it compact and easy to use. The holder provides a stable base for lenses used in refraction and reflection experiments. Its plastic material is lightweight yet sturdy for regular lab use.	4
50	Periscope	A periscope is an optical instrument should be made of plastic with a diameter of 30 mm and a length of 265 mm. It allows users to observe objects beyond their direct line of sight using mirrors or prisms. It is commonly used in physics experiments to demonstrate light reflection and image formation. The plastic body makes it lightweight and easy to handle.	1
51	Kaleidoscope	A kaleidoscope is an optical device should be made of plastic with a 42 mm diameter and 210 mm length. It contains multiple mirrors that create symmetrical patterns when viewed through one end. It is used in physics experiments to study multiple reflections and symmetrical image formations. Its durable plastic construction ensures long-term usability.	2
52	Clamps	A universal clamp a laboratory tool should be made with a metal rod of 9 mm diameter. It is used to hold various lab equipment, such as test tubes, burettes, or thermometers, during experiments. The clamp provides a secure grip, preventing accidental movement or spillage. Its durable metal construction ensures longevity in laboratory settings.	5
53	Electric Generator Model	An electric generator model is a dynamo model should be fixed on a plastic base measuring 220 x 140 x150 mm. It demonstrates the conversion of mechanical energy into	1

101

		electrical energy through electromagnetic induction. The model should include coils, magnets, and a rotating handle for manual operation. It is widely used in physics experiments to study electricity generation.	
54	Magnetic compass big	A magnetic compass (big) is a navigation and measurement tool should be with a 70 mm diameter. It contains a magnetic needle that aligns with Earth's magnetic field, indicating direction. It is used in experiments related to magnetism and Earth's geomagnetic field. The large size enhances readability for precise measurements.	2
55	Copper wire 24 gauge	A copper wire (24 gauge) is a conductive wire should wound on a plastic reel. It is commonly used in electrical circuits, resistance experiments, and electromagnetism demonstrations. The thin gauge allows flexibility while maintaining conductivity. The plastic reel helps in easy storage and handling.	10m
56	Iron fillings powder	An iron fillings powder should come in a 250 g pack, used primarily for visualizing magnetic field lines. It is sprinkled around magnets to observe the pattern of magnetic force. The fine particles react instantly to magnetic fields, making it a useful tool in magnetism studies. The sealed pack ensures safe storage and easy application.	1
57	Series combination of resistors (set)	A series combination of resistors set should be a circuit with LEDs fixed on a plastic base measuring 185 x 120 mm. It should demonstrate how resistors connected in series share voltage and affect current flow. The built-in battery holder and connection leads allow easy setup. It is essential for understanding Ohm's Law and electrical resistance concepts.	1
58	Parallel combination of resistors (set)	A parallel combination of resistors set should be a circuit with LEDs mounted on a plastic base of 185 x 120 mm. It illustrates how resistors in parallel provide alternative current paths, reducing overall resistance. The setup includes a battery holder and connecting leads for easy experimentation. It is crucial for studying current distribution and circuit behaviour.	1
59	Multimeters	A digital multimeter is an electronic measuring tool used for physics and home laboratory applications. It should have a compact size, measuring 5 inches tall, 2.75 inches wide, and 1 inch long. The device includes testing leads for measuring voltage, current, and resistance. It is a versatile tool for diagnosing electrical components.	1

60	Copper plate (electroplating)	A copper plate (electroplating set) consists of a plastic container with an outer diameter of 105 mm, an inner diameter of 100 mm, and a depth of 70 mm. It comes with copper and aluminium electrodes for electrolysis experiments. The setup demonstrates the process of water decomposition into oxygen and hydrogen gas using electric current. A plastic cap holds the electrodes in place, ensuring accuracy.	1
61	Calorimeter	A wooden calorimeter is a heat measurement device with a 95 mm square block. It is used in experiments related to heat transfer, specific heat capacity, and thermal equilibrium. The insulated wooden construction minimizes external heat loss. It is an essential tool in thermodynamics studies.	2
62	Clinical thermometer	A clinical thermometer is a device used to measure the temperature of the human body.	2
63	Celsius thermometer	A Celsius thermometer, also known as a laboratory thermometer, is used to measure temperatures in scientific experiments and general environments.	1
64	Helical Spring (Slinky)	A helical spring (Slinky) is a flexible coil with a 2-inch diameter that can expand up to 10 meters. It is used in physics experiments to demonstrate wave motion, oscillations, and elasticity. The spring provides a visual representation of transverse and longitudinal waves. Its durable metal construction ensures long-lasting performance.	2
65	Tuning Fork (Box)	Tuning fork (box) is a metal instrument used to produce a fixed sound frequency when struck. It is commonly used in physics experiments related to sound waves, resonance, and vibrations. The tuning fork should come in a protective box for safe storage. Its accurately calibrated prongs ensure consistent frequency output.	1
66	Gold leaf electroscope	Electroscope with Metal Frame	1
67	AC DC Dynamo	An AC-DC dynamo is an electrical generator model should be fixed on a plastic base of 220x140x150 mm. It illustrates the principles of alternating and direct current generation. The model includes a hand crank for manual operation. It is widely used in physics laboratories for electromagnetism demonstrations.	1

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68	Inclined plane	A wooden inclined plane is a physics apparatus should be of 4-inch base, used to study motion, friction, and mechanical advantage. It demonstrates the effects of inclined surfaces on rolling or sliding objects. The smooth wooden surface reduces unwanted resistance. It is essential in mechanics experiments.	2
69	Battery holders	A battery holder is a compact device designed to hold two battery cells securely. It ensures proper electrical connections in circuit experiments. The holder prevents accidental disconnections during testing. Its durable plastic construction makes it a reliable lab tool.	2
70	Overflow jar	An overflow jar is a plastic container should be of diameter 50 mm and a height of 120 mm. It is used in fluid mechanics experiments to measure displaced liquid volume. The container allows accurate water displacement studies. The plastic material makes it lightweight and durable.	10
71	Electric switches	An electric switch is an open model designed to help students understand how a switch operates. It should be mounted on a plastic base of size 75x50mm. The switch demonstrates the basic principle of opening and closing an electrical circuit. It is widely used in physics experiments related to electricity and circuits.	250g
72	Spring balance	A tubular spring balance should be of 1-inch diameter and 6-inch length. It is used to measure force or weight in Newtons or grams. The balance consists of a calibrated spring inside a transparent casing. It is commonly used in physics experiments to study force, mass, and Hooke's law.	1
73	Optical Fibre Model	An S-type acrylic optical Fiber model designed with a laser light system. It helps demonstrate how optical Fibers transmit light through total internal reflection. The model should be of 8 inches in length and is widely used in physics and telecommunications studies.	1
74	Electronic weighing machine	A digital weight machine used for precise measurement of mass. It is commonly used in physics and chemistry experiments requiring accurate weight calculations. The machine features an easy-to-read digital display and a stable weighing platform.	1

75	Spirit lamp	A round spirit lamp should be of 3-inch diameter used as a heat source in laboratories. It is fuelled by alcohol and produces a steady flame for heating chemical solutions and conducting experiments. The lamp comes with a metal lid to extinguish the flame safely.	1
76	Lactometer	A lactometer is a hydrometer designed to measure the purity and density of milk. It should consist of a cylindrical glass tube with a weighted bottom to ensure proper floating. The scale on the lactometer indicates the specific gravity of milk. It is widely used in dairy industries and laboratories for milk quality analysis.	1
77	Pascals law apparatus	A hydraulic press model demonstrating Pascal's law, which states that pressure applied to a confined fluid is transmitted equally in all directions. It should consist of two different-sized plastic syringes fixed on a base of size 6"x4". This apparatus is used in fluid mechanics experiments.	4
78	Cells 1.5 v	A cell (1.5V) is a small, portable energy source used in basic electrical circuits. It should provide a steady voltage output of 1.5 volts, suitable for powering small devices and experimental setups. The cell has two terminals, positive and negative, for easy circuit connections. It is commonly used in school physics experiments.	4
79	Cells 9V	A cell (9V) is a rectangular battery that supplies a stable voltage of 9 volts for circuit applications. It is used in electrical experiments, multimeters, and small electronic devices. The battery features snap connectors for secure and easy attachment. It provides a long-lasting power source for various scientific applications.	6
80	Rechargeable Cells	A rechargeable cell is a reusable energy source that can be charged multiple times. It is available in different voltage ratings, commonly 1.2V or 9V, depending on the application. Rechargeable cells are environmentally friendly as they reduce battery waste. They are used in physics experiments and electronic projects requiring a sustainable power source.	1
81	Human eye model	A human eye model should be mounted on a plastic base of size 6"x6". It represents the internal structures of the human eye, including the lens, retina, and optic nerve. This model is used in biology studies to explain vision and eye anatomy.	1

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82	Lattice crystal structure of NaCl	Demonstrating the crystal structure of sodium chloride (NaCl). This model should come with transparent casing and helps students understand the arrangement of ions in a cubic lattice.	2
83	Rectangular glass plates	A rectangular glass plate is a transparent optical component used in reflection and refraction experiments. Should be made of high-quality glass with smooth, polished edges. The plate helps demonstrate the principles of light transmission and angle measurement. It is an essential tool in optics studies.	2
84	Cylinders (for vernier callipers)	A cylindrical metal rod should be of 12mm diameter and 35mm length. It is used with Vernier callipers to demonstrate precision measurement techniques. This helps in physics experiments related to length and diameter measurement.	1
85	Weighing box (physical balance)	A physical weight box containing different weights ranging from 10g to 100g. It is used for calibration and accurate mass measurement in physics and chemistry experiments. The weights are made of durable metal for precision.	4
86	Split cork	A split cork should be of size 7 No, used for holding glass tubes, thermometers, or other cylindrical objects in place. It provides a secure grip and prevents breakage during experiments. Commonly used in physics and chemistry labs.	1
87	Cotton thread	A cotton thread is a fine, flexible fibre used in pendulum experiments and force demonstrations. It is lightweight and does not significantly affect the motion of objects. The thread is used in various physics experiments, including tension and rotational motion studies. It is an essential lab supply for mechanical experiments.	2
88	Stop watches	A stopwatch is a digital or analog timing device used for measuring time intervals accurately. It has a start, stop, and reset function for precise time recording. The stopwatch is essential in experiments involving motion, speed, and reaction time. Its portable design makes it convenient for use in physics laboratories.	5
89	Quill tubes	A quill tube is a small glass tube should be measuring about 5 inches in length. It is used in physics and chemistry experiments for gas collection and fluid transfer. The tube's thin structure allows easy observation of liquid movement. Its transparent material ensures clear visibility during experiments.	1

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90	Strong Thread (nylon)	A nylon thread reel used in force and motion experiments. It is stronger than cotton thread and provides durability for repeated use. Commonly used in physics demonstrations.	4
91	Thin mirror strip (Concurrent forces)	Should be of 1"X 4" in size.	1
92	Specific gravity bottle (50ML)	A small glass bottle with a fixed volume of 50ml, used to determine the specific gravity of liquids. It features a stopper with a capillary hole for accurate measurement. Commonly used in chemistry labs for density calculations.	2
93	Capillary Tubes (surface tension)	Thin glass tubes used to study surface tension and capillary action of liquids. These tubes help demonstrate how liquids rise in narrow spaces due to cohesive and adhesive forces.	1
94	Spirit level	A plastic spirit level used to determine horizontal alignment. It should contain a liquid-filled tube with an air bubble that indicates whether a surface is level. It is widely used in physics experiments related to equilibrium.	4
95	Cork to hold capillary tube	A small cork designed to hold capillary tubes securely in place during experiments. It prevents breakage and ensures stability while measuring liquid behaviour.	1
96	Drawing pins (boxes)	A box of metal drawing pins used to fix paper, charts, or sheets to surfaces for experiments and presentations. These are commonly used in physics and general lab work	2
97	Rubber Hammers	A rubber hammer should be of 10-inch length used in experiments requiring controlled force application. It is used in physics for impact and resonance studies. The rubber head prevents damage to delicate surfaces.	1
98	Connecting Wires	A set of connecting wires should be with banana plugs on both ends Used for creating electrical circuits and making secure connections in experiment	1
99	High Resistance	A high resistance component is an electrical resistor with a large resistance value, housed in a plastic box should be of 90x90 mm. It is used in electrical circuits to limit current flow and study Ohm's Law. The resistor provides a stable resistance for experimental accuracy. It is a fundamental component in electronics and circuit analysis.	1
100	Meter Bridge Set	A meter bridge set is a wooden apparatus should be of 4 inches by 1 meter, used in electrical experiments to determine resistance using the Wheatstone bridge principle.	2

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		It includes a metal wire, scale markings, and connecting terminals. The setup is essential for studying resistance variation and circuit balancing. Its sturdy wooden frame ensures durability.	
101	Transistor Set	A transistor set is a circuit board mounted with NPN and PNP transistors, fixed on a plastic base of 6x4 inches. It is used to study transistor characteristics, amplification, and switching properties. The setup helps in understanding semiconductor behaviour. It is an essential tool in electronics and circuit analysis.	1
103	Right-Hand and Left-Hand Rules	45cm x 60cm, should hanging chart with metal sticks at top and bottom, 300 GSM Laminated Paper, Multicolour printing.	1
104	Electromagnetic Spectrum	45cm x 60cm, should be hanging chart with metal sticks at top and bottom, 300 GSM Laminated Paper, Multicolour printing.	1
105	Friction: Types and Examples	45cm x 60cm, should be hanging chart with metal sticks at top and bottom, 300 GSM Laminated Paper, Multicolour printing.	1
106	Circular Motion	45cm x 60cm, should be hanging chart with metal sticks at top and bottom, 300 GSM Laminated Paper, Multicolour printing.	1
107	Calendar of scientist	45cm x 60cm, should be hanging chart with metal sticks at top and bottom, 300 GSM Laminated Paper, Multicolour printing.	1
108	Dispersion of Light (Prism)	45cm x 60cm, should be hanging chart with metal sticks at top and bottom, 300 GSM Laminated Paper, Multicolour printing.	1
109	Human Eye and Defects of Vision	45cm x 60cm, should be hanging chart with metal sticks at top and bottom, 300 GSM Laminated Paper, Multicolour printing.	1
110	Vector and Scalar Quantities	45cm x 60cm, should be hanging chart with metal sticks at top and bottom, 300 GSM Laminated Paper, Multicolour printing.	1
111	Magnetic Field Lines Around Bar Magnet Bar Magnet	45cm x 60cm, should be hanging chart with metal sticks at top and bottom, 300 GSM Laminated Paper, Multicolour printing.	1

Note:

- **All OEMs should comply with GFR – 144 (xi) (Land Border Clause).**
- Every items/material should be ISI mark/ISO Certification (Wherever applicable).

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- Bidder needs to submit for every tool, equipment, kit etc., a relevant BIS certification (Wherever applicable) to get Standardised products.
- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

39. Science lab establishment with all equipment's (Physics)

Scope of Work: Supply of Physics lab along with previously mentioned equipment (Section no 43) in 599 schools with test benches of 2 as presented below in each school with chairs.

Sl. No.	Item Name	Qty	Unit
1	Modular Island Workbench consisting of 4 NOS 16/6 Amp Electrical switches and sockets with SS top. Material of construction: Made of pipe frame structure cross section 30*30*1.2 mm for pipe frame with CRCA Material. Interior & Exterior Finish with 60-70 microns Powder - coated finish. Table Dimension- 1800*1200*900mm Reagent rack - 900*300*600mm CRC Sheet-20 Gauge	2	SET
2	Laboratory Stool without back: Made in Powder coated MS, SS Table top for the Seat, Round Ring for Leg Rest, 360 Degree Revolving & Lift for Up-Down Movement.	15	Pcs

Note:

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- Every items/material should be ISI mark/ISO Certification (Wherever applicable).
- Bidder needs to submit for every tool, equipment, kit etc., a relevant BIS certification (Wherever applicable) to get Standardised products.
- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

40. Science lab establishment with all equipment's (Chemistry)

Scope of Work: Chemistry labs should be established in 604 schools with all necessary equipment as mentioned in previous related section (section no : 42) along with Testing Tables and chairs as presented below.

Sl. No.	Item Name	Qty	Unit
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1	Modular Island Workbench is without base cabinets with 1 double tier reagent rack consisting of 16/6 Amp electrical switches and sockets with SS Table Top Material of construction: Made of pipe frame structure cross section 30*30 * 1.2 mm for pipe frame with CRCA material. Interior & Exterior Finish with 60-70 microns powder - coated finish. Table Dimension - 1800*1200*900mm Reagent rack - 900*300*600mm CRC Sheet 22 Guage	2	SET
2	Supply and installation of wash basin	2	Pcs
3	Laboratory Stool without back: Made in Powder coated MS, SS Table top for the Seat, Round Ring for Leg Rest, 360 Degree Revolving & Lift for Up-Down Movement.	10	Pcs

Note:

- **All OEMs should comply with GFR – 144 (xi) (Land Border Clause).**
- Every items/material should be ISI mark/ISO Certification (Wherever applicable).
- Bidder needs to submit for every tool, equipment, kit etc., a relevant BIS certification (Wherever applicable) to get Standardised products.
- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

41. Science lab establishment with all equipment's (Biology)

Scope of Work: Biology labs should be established, equipped with all necessary equipment as mentioned in previous section (section no 41) and the facilities in each schools with 2 units on a single Table as presented below.

Detailed Specifications:

Sl. No.	Item Name	Qty	Unit
1	Modular Island Workbench is without base cabinets with 1 double tier reagent rack consisting of 16/6 Amp electrical switches and sockets with SS Table Top Material of construction: Made of pipe frame structure cross section 30*30 * 1.2 mm for pipe frame with CRCA material. Interior & Exterior Finish with 60-70 microns powder - coated finish.	2	SET

104

	Table Dimension - 1800*1200*900mm Reagent rack - 900*300*600mm CRCA Sheet 22 Gauge		
2	Laboratory Stool without back: Made in Powder coated MS, SS Table top for the Seat, Round Ring for Leg Rest, 360 Degree Revolving & Lift for Up-Down Movement.	15	Pcs

Note:

- All OEMs should comply with GFR – 144 (xi) (Land Border Clause).
- Every items/material should be ISI mark/ISO Certification (Wherever applicable).
- Bidder needs to submit for every tool, equipment, kit etc., a relevant BIS certification (Wherever applicable) to get Standardised products.
- Bidder needs to submit the test reports for quality and safety of tools from NABL accredited lab (Wherever applicable).

42. Dedicated furniture for library

Scope of work: Library furniture should be supplied in 485 schools.

Sr. No.	ITEM	Qty
1	Computer table	10
2	Chair	20
3	Book Shelves	1
4	Storage Unit	2
5	News paper Table	2

Detailed Specifications

Table:

ISO Certified, 600 mm x 450 mm x 725 mm or better having facility for keeping PU, Monitor, Keyboard and mouse (pull tray). Material of table top and keyboard tray -- MDF board of grade SBG II of IS 12406 latest or Pre laminated particle boards (wood product) of grade II type II of IS 12823 latest

Chair: PVC/ Melded chair without arm (ISO certified)

Bookshelves:

Material	Solid Wood/MDF
No. of Shelves	8 Shelves
Mount Type	Free Standing
Country of Origin	Made in India

Finish Type	Polished/Pre laminatedLaminated
Color	Brown
Rack Type	Open Rack

Storage Unit : 5 feet or above steel almirah

News paper table:

Material	Metal
Usage / Application	Office
Wood Type	MDF
Usage/Application	Colleges
Height	3 Feet
Color	White/other
Reading Table	Flat
No. Of Shelves	2 Shelves
Finish	Matte
Warranty	1 Year
Wrist Rest	Yes
Weight Tolerance Capacity	50 Kg
Paper Stop	Yes

43. Colourful sorting dustbins

Scope of Work: Colourful sorting dustbins painted with interesting characters for waste segregation should be supplied in 789 schools. Ten (10) dustbins should be provided per school.

DETAIL SPECIFICATIONS

S. No.	Description	Specifications
1	Capacity	50-60 L
2	Material	PPCP
3	Wheel Material	Solid Rubber
4	Total Weight	5 Kg

44. Sanitary Pads

Scope of Work:- High-quality sanitary pads suitable for adolescent girls should be provided, ensuring adequate absorbency and comfort for regular to heavy flow.

- Ensure pads meet safety standards, using hypoallergenic, chemical-free materials.

12/1

- Provide hygienically sealed packaging with clear labelling.

ITEM	Specs
Sanitary Pad for 325758 girls	Total 12 packs in a year. Each pack of 5 pads.

Note: specifications may vary +/- 10% variation (applicable from S.no 1 to 49)

45. Computer Instructor:

45.1. Scope of work:

- The bidder/agency should deploy one computer instructor per school in all **789 schools**.
- The Service Level Agreement with the successful agency/bidder will be signed with Bihar Education Project Council, Patna and on behalf of the BEPC, Patna, for the day to day execution of the contract.
- Minimum educational qualification: Bachelor's degree in Computer Science, Information Technology, or a related field, or a Diploma in Computer Engineering/IT with at least 2 years of relevant experience.
- Proficiency in operating systems (Windows 11 Professional, Linux), open-source office software, and basic networking.
- Fluency in English and Hindi for communication and training purposes.

45.2. Experience:

- At least 1-2 years of experience in teaching computer education or managing ICT infrastructure in educational institutions or similar settings.
- Experience in handling hardware troubleshooting, software installation, and basic network configuration is preferred.

45.3. Minimum Salary & other conditions for Computer instructor:

- The minimum gross wages/salary and related statutory compliance of computer instructor shall be as per the minimum wages act applicable in the State.
- The bidder shall ensure compliance with all applicable laws, local and Central, including all labour laws like ESI, EPF, Minimum Wages Act, Bihar Shops & Establishments Act, Contract Labour (Regulation and abolition) Act 1970, Payment of Bonus Act etc. and shall keep BEPC indemnified and harmless in case of any action for violation by the bidder of any of the applicable laws. For all purposes the persons deployed will be employees of the bidder and they will have no relation whatsoever with BEPC. The bidder shall be responsible for furnishing all such information/documents to BEPC in this regard as may be required by

it from time to time. Furthermore, the bidder shall be responsible to furnish self-attested copies of all returns/challans filed by the bidder in the office of ESI, EPF, Minimum Wages Act, Contract Labour etc. on monthly basis to the BEPC, in case, the bidder fails to submit or not willing to submit the copies of returns, BEPC shall be entitled to stop the payments till the submissions of the returns.

- iii. Computer Instructor is allowed to take 16 leave per year. In case the resource is absent for more than 10 days in any month, the bidder needs to arrange an alternative resource failing which a penalty of Rs. 250/- per working day would be levied on the bidder for each day exceeding 10 days the Vocational trainer is absent.

45.4. Responsibilities of Computer Instructor:

- i. Ensure the effective installation, commissioning, and maintenance of digital hardware, software, and peripherals supplies.
- ii. Provide computer education services and training to students and teachers.
- iii. Monitor and manage the operational efficiency.
- iv. Support the integration of digital resources and e-content as provided by the Department.
- v. Maintain a web-based online project monitoring system for tracking usage and performance.

46. Vocational Trainer:

46.1. Scope of work:

- i. The Bidder/Agency should deploy Vocational trainer in the ratio of 1:5, one vocational trainer shall monitor 5 schools.
- ii. Total no of 158 Vocational trainers are to be deployed.
- iii. Vocational trainer should cover the allotted schools minimum 2 times in the week.
- iv. The Service Level Agreement with the successful agency/bidder will be signed with Bihar Education Project Council, Patna and on behalf of the BEPC, Patna, for the day to day execution of the contract.
- v. The minimum qualification of the Vocational trainer should be Graduation with at least 1 year Diploma Course in ITI/Computer/IT and good communication skills.

46.2. Minimum Salary & other conditions for Vocational trainer:

- i. The minimum gross wages/salary and related statutory compliance of Vocational trainer shall be as per the minimum wages act applicable in the State.

- ii. The bidder shall ensure compliance with all applicable laws, local and Central, including all labour laws like ESI, EPF, Minimum Wages Act, Bihar Shops & Establishments Act, Contract Labour (Regulation and abolition) Act 1970, Payment of Bonus Act etc. and shall keep BEPC indemnified and harmless in case of any action for violation by the bidder of any of the applicable laws. For all purposes the persons deployed will be employees of the bidder and they will have no relation whatsoever with BEPC. The bidder shall be responsible for furnishing all such information/documents to BEPC in this regard as may be required by it from time to time. Furthermore, the bidder shall be responsible to furnish self-attested copies of all returns/challans filed by the bidder in the office of ESI, EPF, Minimum Wages Act, Contract Labour etc. on monthly basis to the BEPC, in case, the bidder fails to submit or not willing to submit the copies of returns, BEPC shall be entitled to stop the payments till the submissions of the returns.
- iii. Vocational Trainer is allowed to take 16 leave per year. In case the resource is absent for more than 10 days in any month, the bidder needs to arrange an alternative resource failing which a penalty of Rs. 250/- per working day would be levied on the bidder for each day exceeding 10 days the Vocational trainer is absent.

46.3. Responsibilities of Vocational Trainer:

- i. **Program Oversight and Monitoring:** supervise the implementation of vocational education programs across 5 designated schools, ensuring adherence to curriculum, schedule, and training quality.
- ii. **Trainer Coordination:** regularly coordinate with school-level Vocational teachers to track lesson completion, classroom delivery standards, and daily attendance.
- iii. **Quality Assurance:** Conduct periodic classroom observations, review training material usage, and verify skill lab functionality to ensure consistency and quality across all schools.
- iv. **Assessment and Evaluation Support:** Facilitate the organization of formative and summative assessments and ensure standardized evaluation practices across the cluster.
- v. **Reporting and Documentation:** Maintain consolidated reports for all assigned schools, including trainer performance, student participation, assessment records, and placement data.
- vi. **Industry Linkage Facilitation:** Identify and coordinate with local industries for guest sessions, field visits, internships, and placement opportunities for students from all five schools.
- vii. **Capacity Building:** Organize refresher training, knowledge-sharing sessions, and handholding support for school-level vocational teachers.
- viii. **Stakeholder Engagement:** Liaise with school principals, nodal officers, and local education authorities to ensure administrative and logistical support for the vocational program.

- ix. **Compliance and Audit Readiness:** Ensure that all documentation, lab setup, safety protocols, and operational norms are audit-ready and comply with the guidelines.
- x. **Student Mentorship and Outreach:** Interact with students during school visits to resolve grievances, motivate participation, and identify high-performing students for competitions or advanced opportunities.

47. Vocational Teachers:

47.1. Scope of work:

- i. The Bidder/Agency will have to deploy 2 Vocational teachers per school for the respective trades deployed in 789 schools.
- ii. The Service Level Agreement with the successful agency/bidder will be signed with Bihar Education Project Council, Patna and on behalf of the BEPC, Patna, for the day to day execution of the contract.
- iii. The minimum qualification of the Vocational teacher should be Graduation with at least 1 year Diploma Course in ITI/Computer/IT and good communication skills.

47.2. Minimum Salary & other conditions for Vocational teacher:

- i. The minimum gross wages/salary and related statutory compliance of Vocational trainer shall be as per the minimum wages act applicable in the State.
- ii. The bidder shall ensure compliance with all applicable laws, local and Central, including all labour laws like ESI, EPF, Minimum Wages Act, Bihar Shops & Establishments Act, Contract Labour (Regulation and abolition) Act 1970, Payment of Bonus Act etc. and shall keep BEPC indemnified and harmless in case of any action for violation by the bidder of any of the applicable laws. For all purposes the persons deployed will be employees of the bidder and they will have no relation whatsoever with BEPC. The bidder shall be responsible for furnishing all such information/documents to BEPC in this regard as may be required by it from time to time. Furthermore, the bidder shall be responsible to furnish self-attested copies of all returns/challans filed by the bidder in the office of ESI, EPF, Minimum Wages Act, Contract Labour etc. on monthly basis to the BEPC, in case, the bidder fails to submit or not willing to submit the copies of returns, BEPC shall be entitled to stop the payments till the submissions of the returns.
- iii. Vocational teacher is allowed to take 16 leave per year. In case the resource is absent for more than 10 days in any month, the bidder needs to arrange an alternative resource failing which a penalty of Rs. 250/- per working day would be levied on the bidder for each day exceeding 10 days the Vocational trainer is absent.

47.3. Responsibilities of Vocational teacher:

Sr. No.	Primary Function	Description
1	Program Implementation & Oversight	Manage daily operations of vocational programs, monitor classes, and ensure equipment/lab functionality.
2	Collaboration	Coordinate guest lectures.
3	Student Guidance	Counsel students on vocational careers, further studies, and opportunities.
4	Monitoring & Reporting	Track student progress, lab usage, and report performance to school and agency authorities.
5	Support & Outreach Activities	Lead initiatives to promote vocational awareness and guide students through skill education pathways.
6	Quality Assurance	Maintain training standards, suggest improvements, and ensure high-quality vocational delivery.

48. Inventory Management System

- i. Supplier Portal Features
- ii. Suppliers shall mark materials as “Dispatched” to the department.
- iii. Suppliers shall enter shipment details, including the type and quantity of each line item/equipment dispatched.
- iv. Department Portal Features
- v. Departments should be able to acknowledge receipt of goods by marking them as “Received from Supplier.”
- vi. Departments shall issue line item /equipment to schools by recording:
- vii. School Name
- viii. Type of Instruments
- ix. Quantity Issued
- x. School Portal Features
- xi. Schools should confirm receipt of equipment by marking them as “Received from Department.”
- xii. System-Level Features

12/1

- xiii. Maintain a Master List of Schools.
- xiv. Maintain a Master List of Equipment.
- xv. Enable User Account Creation for:
 - xvi. Schools
 - xvii. Department Users
 - xviii. Suppliers
- xix. Generate a variety of reports, including:
 - xx. School-wise stock reports showing the quantity of equipment available.
 - xxi. Dispatch reports summarizing the type and number of equipment shipped by various stakeholders within a defined time period.
 - xxii. Vendor-level dispatch reports showing instruments marked as "Dispatched" by suppliers.
 - xxiii. Pending receipt reports identifying instruments marked as "Dispatched" by vendors but not yet received by the department.
 - xxiv. Issue reports showing items issued to schools by the department.

49. Distribution tracking software:

The scope of work should include the design and development of an application for tracking and tracing the movement of shipment batches from the headquarters/State Level to various districts and across the entire value chain up to the school level.

The application should have the following features: -

- a) Each batch shipment will be assigned a unique QR Code/Bar Code
- b) Each batch will have certain fields assigned to it like date of dispatch, source/origin point, destination point, transit route with all interim locations tagged onto the same.
- c) Provision shall be made for all transit points (like district, block, school etc.) to update the information contained in the database (like "received", "dispatched", "cancelled", "delayed" etc.) by scanning the QR Code/Bar Code on the batch shipment. This updation shall be made upon receipt and dispatch of shipment respectively with an option to enter remarks (to input certain important information pertaining to the state of receipt, dispatch, delay etc.)
- d) Provision shall be made to track the shipment by all concerned stakeholders like "Dept. HQRS", "District Level Officer", "Block Level Officer" and "School" to track the journey of the batch shipment through their respective logins in the mobile application. A graphical

seek-bar on the UI can be provided pictorially depicting (representational) the complete route highlighting the areas covered/remaining towards the final destination.

- e) Provision will be made for the administrator to manually update the status of the shipment in case any stakeholder in the value chain is unable to update the information due to technical glitches.
- f) Provision for the administrator to define the different masters like “Shipment Status”, “Shipment Size/Category”, “locations” (for entering “Place of Origin” & “Place of Delivery”), mechanism for defining the transit route, estimated time of delivery etc.
- g) Provision for the administrator to define roles in the system with access rights & privileges and assigning them to different users.
- h) Provision for the administrator to define the various users or optionally, users can download the application from the Android play-store and register themselves using some authentication mechanism.
- i) Provision for the administrator to view/download/print certain pre-defined reports like no. of shipments delivered in a particular time-period, no. of shipments pending to be delivered, no. of shipments which have overrun their estimated time of delivery etc.
- j) Provision for sending different application-based alerts and notifications to all stakeholders upon triggering of key events like “package received”, “package dispatched” etc.