**Domestic Tender for** 

Supply and Installation of Acoustic Panels, Furniture, Lighting and Audio-Visual Equipment for Classrooms at Chemical Sciences Building, IISc

Tender No: IISc/CSB-CR/2024-25 Dt: 14.10.2024



Indian Institute of Science Bangalore

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### **SECTION 1 – BID SCHEDULE**

Tender No: IISc/CSB-CR/2024-25

**Tender Date:** 14.10.2024

Item Description: Supply and Installation of Acoustic Panels, Furniture, Lighting and Audio-Visual Equipment for Classrooms at Chemical Sciences Building, IISc

Tender Type: Two Bid System

Technical Bid (Part-A); Financial Bid (Part-B)

Last date & time for submission of Bids : 04.11.2024, 5:00 pm

Site Visit Schedule (Mandatory): 16.10.2024 & 17.10.2024 from 11:00 am to 1:00 pm

Place of Submission: B116, CSB Office (B-Block, First Floor)

**Chemical Sciences Building** 

Indian Institute of Science

Bangalore-560012

**Opening Date & Time of Technical Bid:** 05.11.2024, 5:00 pm

**Opening Date & Time of Financial Bid:** TBA

Place of Opening of Technical Bid: A107, Chemical Sciences Building

Tender Fees: NIL

**Earnest Money Deposit:** Earnest Money Deposit (EMD) of Rs 5,00,000/- (Rupees Five Lakhs only) in the form of Bank Guarantee/Demand Draft in favour of "The Registrar, IISc, Bangalore", payable at Bangalore to be submitted with the Technical Bid.

### **Any Clarification:**

Dean, Division of Chemical Sciences

Email: dean.che@iisc.ac.in

Contact No: 080-2293 3786; 2382

#### **SECTION 2 – ELIGIBILITY CRITERIA**

#### Prequalification criteria:

1. Bidder should firm)	be a well-established firm. (Enclose GST & MSME Registration Certificate of the
Turnkey Fito Lighting & Department	d have at least 5(five) years experience in Auditorium/classroom Interior and but, which includes Acoustical treatment, Audio Visual Equipment, General Electrical, Modular Furniture and Civil Works in Central/State Govt. s/ PSUs/Banks/reputed/IT and other premier educational institutions. (Self - Annexure 3).
given to C	ust have their office and/or service centre(s) in Bangalore. Preference shall be EM's of AV, lighting, furniture and other critical components with rized service centres in Bangalore.
<ol> <li>Quote should authorized d</li> </ol>	come only from Indian Original Equipment Manufacturer (OEM) or their Indian listributor.
content" as belong to in of equal to c content of e	ould belong to either Class-1 or Class-2 suppliers distinguished by their "local defined by recent edits to GFR. They should mention clearly which class they the cover letter. a) Class-1 supplier: Goods and services should have local content or more than 50%. b) Class-2 supplier: Goods and services should have local qual to or more than 20 % and less than 50%. (Refer to Annexure 6).
6. The quotation	n should be on FOR-IISc Bangalore Basis in INR Only.
cannot claim services sucl	ng imported products will fall under the category of non-local suppliers. They themselves as Class-1 local suppliers/Class-2 local suppliers by claiming the as transportation, insurance, installation, commissioning, training, and other support like AMC/CMC, etc., as local value addition.
	ference as defined by the recent edits to GFR (within the "margin of purchase will be given to the Class-1 supplier.
with a minin	d have executed at least one order of similar nature (as defined in Point no. 2) num value of Rs 3 crore (Rupees Three crore only) in each year, during any 3 of ears. (Give details in the enclosed format along with Copy of Purchase orders –
Auditorium/ during any 3	should have a minimum Annual Turnover of Rs. 4.0 crore in classroom Fitout as mentioned in Point no.2 above and fixture and furnishing of the last 5 years. (Copy of Audited Statement of Accounts to be submitted a om the charted accountant may kindly be furnished indicating the turnover).
	hould not have been blacklisted by any institution/bank in India and abroad tion-Annexure-4)
12. The Bidder s	hould accept tender terms & conditions (Annexure-5)
13. Earnest Mor Bank Guara Bangalore to	ney Deposit (EMD) of Rs 5,00,000/- (Rupees Five Lakhs only) in the form of ntee/Demand Draft in favor of "The Registrar, IISc, Bangalore", payable at be submitted with the Technical Bid. No Exception is available for the EMD e fails to submit EMD will be disqualified.
14. MSMEs can such details.	seek an exemption to some qualification criteria. IISc follows GFR2017 for
15. It is mandate	ory that the vendors are enlisted in CPWD/PWD/Central or State PSU's.
	Mandatory and Bidder should submit Site Visit certificate along with the (as per the date & time mentioned in tender).

#### SECTION 3 – TERMS AND CONDITIONS

#### Submission of Tender:

1. All documentations in the tender should be in English	1.	All documentations in the tender should be in English	
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2. Sealed tenders are invited under two bid systems i.e. Technical and Financial Bid.

(i) The technical bid consisting of technical details and the financial terms and conditions without any financial values of items should be placed in an envelope and sealed, superscribing as "Technical Bid". Also, superscribe on the envelope "Name, address and telephone number of the tendering firm".

(ii) The financial bid indicating item wise price of items mentioned in the technical bid should be placed on an envelope and sealed, superscribing as "Financial bid." Also, superscribe on the envelope "Name, address and telephone number of the tendering firm."

- 3. The envelopes containing technical and financial bids should be placed in another envelope and sealed super scribing as "Bid for Supply and Installation of Acoustic Panels, Furniture, Lighting and Audio-Visual Equipment for Classrooms at Chemical Sciences Building, IISc". Also, superscribe on the envelope "Name, address and telephone number of the tendering firm".
- 4. All communications are to be addressed to the undersigned only.
- 5. Price quoted should be in Indian Rupees.
- 6. G.S.T. & other statutory taxes/levies, are to be indicated separately. BIDDER should mention Central and State G.S.T. Registration and PAN in the tender. If vendor has exemption, separate and relevant document to be furnished in the technical bid.
- 7. If Price is not quoted for each line item in the Financial Bid as given in the Tender document, the bids will be rejected.
- 8. Incomplete bids will be summarily rejected.
- 9. The selected vendor shall visit the site with the tender BOQ and ensure that all the specified quantities match the requirement as per site conditions. Any discrepancies in the quantity must be highlighted before starting the work.
- 10. For all the custom-made items fabricated at site, the bidder shall visit the site and quote as per site conditions.

#### Cancellation of Tender:

Not withstanding anything specified in this tender document, IISc Bangalore, in its sole discretion, unconditionally and without having to assign any reason/s, reserves the rights:

- a. To accept OR reject lowest tender or any other tender or all the tenders.
- b. To accept any tender in full or in part.
- c. To reject the tender offer not conforming to the tender's terms.

#### Validity of the bid:

60 days from the last date for submission of the bid.

#### **Evaluation of Bid:**

- 1. The technical bid will be opened first and evaluated. The financial bid of the technical qualified bidders only will be opened later.
- 2. Bidders meeting the required criteria as stated in Section 2 of this document shall only be considered for Financial Bid. Further, agencies not furnishing the documentary evidence as required will not be considered.
- 3. Invitation of the bidders shall not imply final acceptance of the Financial Bid. The agency may be rejected at any point during Technical / financial evaluation. The decision regarding acceptance and / or rejection of any offer in part or full shall be at the sole discretion of IISc, and the decision in this regard shall be binding on the Agencies.
- 4. The award of contract will be subject to acceptance of the terms and conditions stated in this tender. Contract documents should be executed within 21 days of award of contract. Non-fulfillment of this condition of executing a contract by the awardee will lead to cancellation of the award and forfeiture of EMD. The Institute reserves the right to award the contract to the next lowest bidder, if they agree to execute the work at L1 price.
- 5. Offer which deviates from the vital conditions (as illustrated below) of the tender shall be rejected
  - a. Non-submission of complete offers.
  - b. Receipt of bids after the due date and time and or by email / fax (unless specified otherwise).
  - c. Receipt of bids in open conditions.
- 6. In case any BIDDER is silent on any clause mentioned in this tender document, IISc. Bangalore shall construe that the BIDDER had accepted the clause as per the invitation to tender and no further claim will be entertained.
- 7. No revision in the terms and conditions quoted in the offer will be entertained after the last date and time fixed for receipt of tenders.
- 8. The date and time of the Bid opening shall be intimated to the bidders.
- 9. Consolidated prices of all items will be used for selecting the agency.
- 10. Quantities of cables, conduits and acoustics shall be billed as per consumption at site.

#### Guarantee:

If the goods supplied are found defective due to bad design or workmanship, the same should be repaired or replaced free of charge. Performance guarantee and warranty for the items supplied need to be provided for a period of two years from the date of commissioning and certification in the form of bank guarantee for Rs. 5 Lakhs.

#### **Purchase Order:**

- 1. The order will be placed on the bidder whose bid is accepted by IISc based on the terms & conditions mentioned in the tender.
- 2. The item-wise price indicated in the financial bid will be used for the purpose of arriving at price differential for any changes made in the specification/quantity during execution of the work.

#### **Earnest Money Deposit:**

- 1. EMD of unsuccessful bidders will be returned within 30 days after the award of the contract.
- EMD of a bidder will be forfeited, if the bidder withdraws or amends its tender or derogates from the tender in any respect within the period of validity of its tender. Further, if the successful bidder fails to furnish the required performance security within the specified period, its EMD will be forfeited.
- 3. If the quality of product and service provided are not found satisfactory, IISc Bangalore reserves the right to cancel or amend the contract.

#### **Delivery Schedule:**

Free delivery and Installation at IISc, Bangalore within 90 days from the date of issue of purchaseorder.

#### Penalty:

Timely delivery is the essence of the contract and hence if the completion of the milestone as mentioned below is delayed, liquidated damages at the rate 0.5% of the price of the delayed part, for each week or part thereof shall be levied and recovered subject to maximum of 5% of total purchase order value.

#### **Payment Terms:**

No advance payment shall be made. Running Bills along with supporting documents showing each item executed with its quantity & rate shall be submitted by the supplier on completion of the task in duplicate quoting GST and PAN and other supporting documents. Milestones for payment release:

- 1. Supply of all Acoustic, Civil and Electrical materials 40% of the order value. (Within 30 days from issue of Purchase Order)
- 2. Supply of Audio Video Equipment's and Furniture's 40% of the order value. (Within 45 days from issue of Purchase Order)
- 3. Installation and testing of all systems 10% of the order value. (Within 75 days from issue of Purchase Order)
- **4.** Completion of commissioning and handover 10% of the order value. (Within 90 days from issue of Purchase Order)

#### **Statutory Variation:**

Any statutory increase in the taxes and duties after suppliers offer if it takes place within the original contractual delivery date will be to IISc account subject to the claim being supported by documentary evidence. However, if any decrease in statutory levies, if any, must be borne by the vendor. However, if there is any decrease in taxes, the same is to be passed on the institute.

#### **Disputes and Jurisdiction:**

Any legal disputes arising out of any breach of contract pertaining to this tender shall be settled in the court of competent jurisdiction located within the city of Bangalore.

**Make in India** Only "Class–I and Class-II local supplier will be eligible to bid in accordance with notifications issued by DPIIT from time to time. The bidder must submit the local content declaration as per Annexure 6 given in the document.

\*(To be submitted in the company letter head by supplier)

### General:

- 1. All amendments, time extension, clarifications etc, within the period of submission of the tender, will be uploaded on the IISc website only and will not be published in newspapers. Bidders should regularly visit the above website to keep themselves updated. No extension in the bid's due date/timeshall be considered on account of delay in receipt of any document by mail.
- 2. The Bidder should ensure that the necessary facilities required for fabricating the tendered products are available in house. IISc reserves the right to inspect the supplier's factory at any time during the prevalence of the contract and also to inspect each manufactured item before dispatch.
- 3. The bidder may furnish any additional information, which he/she thinks is necessary to establish his/her capabilities to successfully complete the envisaged work. It is, however, advised not to provide superfluous information.
- 4. The bidder should visit the site as per the schedule given in Section 1.
- 5. Any information furnished by the bidder if found to be incorrect either immediately or at a later date, the bid will be summarily rejected.
- 6. The sample for finishes indicated should be shown and got approved by the vendor before procurement. Mock-up of wall paneling and ceiling must be done at site for approval (No additional cost can be charged for the samples).

Dean Division of Chemical Sciences

# Section 4: Technical Bid

S.No.	Description	Qty	Unit	Approved Make	Quoted Make & Model	Compliance Y/N	Remarks/Deviations			
	A. INFRASTRUCTURE									
<mark>A1. AC</mark>	A1. ACOUSTIC WALL PANELLING AND CEILING TREATMENT									
Room 1	No AG07 (49-seater classroom)									
1	Supply & installation of Slats made of pinewood E1 grade fiberboard, melamine laminated finish, groove perforated slats L16-2 - (2mm grooves @16mm pitch with 27% open area), backlined with Soundtexblack acoustical fleece of 0.27mm thick, surface density 63g/m2,tongue-groove edge for a seamless look, 5-test fire retardant grade, size 128 x2440x16mm, volume density of base board 700Kg/m3, weight (L16), 10.5Kg/m2 installed by using 50x25mm Tubular Aluminium channel infill with 25mm Synth of 1000GSM and finished with 12mm MR plywood, complete with all standard accessories.	88	Sqm	Anutone / Armstrong / Topakustiks						
2	Supply and Installation of subtexNubby,square edge, Glassfibre core fully encapsulated ceiling tile of size 595x59x15mm having volume density 120Kgs/m3, weight 1.8kg/m2 which is suspended by using 0.3mm thick Skelet TrelisT15 metal grid system. Skelet TrelisT15 metal grid system of 600x600mm module includes Skelet WA15W30 wall angle with unequal flanges of 15/19mm, length 3000mm, fixed along the perimeter of walls with the help of nylon sleeves and suitable fasteners at 300mm centers. Then suspend the Skelet MT15W36 MainT with flange width 15mm, height 32mm and length 3600mm, from the soffit slab with help of soffit cleat and wire rod with leveling spring clip at 1200mm centres. Skelet CT15W12 CrossT with flange width 15mm, height 26mm and length 1200mm is interlocked into the pre-cut slots in the Main T15 at 600mm centers in the perpendicular direction to the Main T15. Finally The Skelet CT15W06 CrossT with flange width 15mm, height 26mm and length 600mm are interlocked into the precut slots in the CT15W12 CrossT in direction parallel to the Main T15 to result in 600x600mm module. The Subtex Nubby square edge of size 595x595x15mm shall be placed into the grid size of 600x600mm. Ensure arrow marks behind the tiles are oriented in one direction to achieve uniform shade. The systems to achieve noise reduction coefficient not less than 0.9 NRC. So as to have a neat appearance as directed.	64	Sqm	Anutone / Armstrong / Topakustiks						
3	Supply and Installation of 12/19mm MR plywood with selected laminate of 0.85 or 1mm thick complete with all standard accessories.	10	Sqm	Century plywood / Greenplyecotec / Archidply						
Room 1	No AG08/10 (88-seater classroom)									
1	Supply & installation of Slats made of pinewood E1 grade fiberboard, melamine laminated finish, groove perforated slats L16-2 - (2mm grooves @16mm pitch with 27% open area), backlined with Soundtexblack acoustical fleece of 0.27mm thick, surface density 63g/m2,tongue-groove edge for a seamless look, 5-test fire retardant grade, size 128 x2440x16mm, volume density of base board 700Kg/m3, weight (L16), 10.5Kg/m2 installed by using 50x25mm Tubular Aluminium channel infill with 25mm Synth of 1000GSM and finished with 12mm MR plywood, complete with all standard accessories.	130	Sqm	Anutone / Armstrong / Topakustiks						

2	Supply and Installation of subtexNubby,square edge, Glassfibre core fully encapsulated ceiling tile of size 595x595x15mm having volume density 120Kgs/m3, weight 1.8kg/m2 which is suspended by using 0.3mm thick Skelet TrelisT15 metal grid system. Skelet TrelisT15 metal grid system of 600x600mm module includes Skelet WA15W30 wall angle with unequal flanges of 15/19mm, length 3000mm, fixed along the perimeter of walls with the help of nylon sleeves and suitable fasteners at 300mm centers. Then suspend the Skelet MT15W36 MainT with flange width 15mm, height 32mm and length 3600mm, from the soffit slab with help of soffit cleat and wire rod with leveling spring clip at 1200mm centres. Skelet CT15W12 CrossT with flange width 15mm, height 26mm and length 1200mm is interlocked into the pre-cut slots in the Main T15 at 600mm centers in the perpendicular direction to the Main T15. Finally The Skelet CT15W06 CrossT with flange width 15mm, height 26mm and length 600mm are interlocked into the precut slots in the CT15W12 CrossT in direction parallel to the Main T15 to result in 600x600mm module. The Subtex Nubby square edge of size 595x595x15mm shall be placed into the grid size of 600x600mm. Ensure arrow marks behind the tiles are oriented in one direction to achieve uniform shade. The systems to achieve noise reduction coefficient not less than 0.9 NRC. So as to have a neat appearance as directed.	131	Sqm	Anutone / Armstrong / Topakustiks		
3	Supply and Installation of 12/19mm MR plywood with selected laminate of 0.85 or 1mm thick complete with all standard accessories.	10	Sqm	Century plywood / Greenplyecotec / Archidply		

#### Room No AG12 (42-seater classroom)

1	Supply & installation of Slats made of pinewood E1 grade fiberboard, melamine laminated finish, groove perforated slats L16-2 - (2mm grooves @16mm pitch with 27% open area), backlined with Soundtexblack acoustical fleece of 0.27mm thick, surface density 63g/m2,tongue-groove edge for a seamless look, 5-test fire retardant grade, size 128 x2440x16mm, volume density of base board 700Kg/m3, weight (L16), 10.5Kg/m2 installed by using 50x25mm Tubular Aluminium channel infill with 25mm Synth of 1000GSM and finished with 12mm MR plywood, complete with all standard accessories.	77	Sqm	Anutone / Armstrong / Topakustiks		
2	Supply and Installation of subtexNubby,square edge, Glassfibre core fully encapsulated ceiling tile of size 595x595x15mm having volume density 120Kgs/m3, weight 1.8kg/m2 which is suspended by using 0.3mm thick Skelet TrelisT15 metal grid system. Skelet TrelisT15 metal grid system of 600x600mm module includes Skelet WA15W30 wall angle with unequal flanges of 15/19mm, length 3000mm, fixed along the perimeter of walls with the help of nylon sleeves and suitable fasteners at 300mm centers. Then suspend the Skelet MT15W36 MainT with flange width 15mm, height 32mm and length 3600mm, from the soffit slab with help of soffit cleat and wire rod with leveling spring clip at 1200mm centres. Skelet CT15W12 CrossT with flange width 15mm, height 26mm and length 1200mm is interlocked into the precut slots in the CT15W12 CrossT in direction parallel to the Main T15 to result in 600x600mm module. The Subtex Nubby square edge of size 595x595x15mm shall be placed into the grid size of 600x600mm. Ensure arrow marks behind the tiles are oriented in one direction to achieve uniform shade. The systems to achieve noise reduction coefficient not less than 0.9 NRC. So as to have a neat appearance as directed.	61	Sqm	Anutone / Armstrong / Topakustiks		
3	Supply and Installation of 12/19mm MR plywood with selected laminate of 0.85 or 1mm thick complete with all standard accessories.	10	Sqm	Century plywood / Greenplyecotec / Archidply		
Room	No A104 (78-seater classroom)					
1	Supply & installation of Slats made of pinewood E1 grade fiberboard, melamine laminated finish, groove perforated slats L16-2 - (2mm grooves @16mm pitch with 27% open area), backlined with Soundtexblack acoustical fleece of 0.27mm thick, surface density 63g/m2,tongue-groove edge for a seamless look, 5-test fire retardant grade, size 128 x2440x16mm, volume density of base board 700Kg/m3, weight (L16), 10.5Kg/m2 installed by using 50x25mm Tubular Aluminium channel infill with 25mm Synth of 1000GSM and finished with 12mm MR plywood, complete with all standard accessories.	86	Sqm	Anutone / Armstrong / Topakustiks		
2	Supply and Installation of 12/19mm MR plywood with selected laminate of 0.85 or 1mm thick complete with all standard accessories.	10	Sqm	Century plywood / Greenplyecotec / Archidply		

#### A2. ELECTRICAL WORK/RE-WORK

Room N	To AG07 (49-seater classroom)				
1	Supply heavy guage PVC conduit pipe 25 dia 2 mm thick confirming to IS 2509 with suitable size bends, junction boxes, adhesive paste etc, and fixing using inverted wood plug in case of RCC ceiling and RCC walls / stone structure or raw plugs in case of brick walls and cement plastering and damaged portion using heavy gauge saddles at an interval of 700 mm using NF screws. As per the direction of Engineer -in -charge.	60	Mtr	Precision / VIP / Avonplast	
2	Supply heavy guage PVC conduit pipe 25 dia 2 mm thick with suitable size bends, junction boxes, adhesive paste etc, throught the conduit where by groove cutting in the wall and fixing by bracing U or J hooks and cement plastering upto the wall surface and run with 18 SWG GI fish wire run throughout the conduit where ever necessary. As per the direction of Engineer -in-charge.	20	Mtr	Precision / VIP / Avonplast	
3	Providing PVC fexible Conduit pipe 25 mm dia fixing on surface over inverted tapered wooden plugs or phill plugs or rawl plugs and clamped using heavy gauge saddles of 300 mm using NF screws and on either end of the pipe terminated completely. As per the direction of Engineer-in-charge.	65	Mtr	Precision / VIP / Avonplast	
4	Wiring for lighting / power circuit using one of FRLS PVC insulated 1100V grade, multistand copper wire with low conductor resistance single core in open or concealed system of wiring with specified IS 694:2010.As per the direction 0f Engineer-in-charge.			National / Polycab/ RR Cable / Finolex / Havells	
4.1	1.5 Sqmm	350	Mtr		
4.2	2.5 Sqmm	80	Mtr		
4.3	4.0 Sqmm	30	Mtr		
5	Supplying and drawing flexible multicore cable manufactured with electrolytic grade flexible copper with low conductor confirming to IS 8130-1984 and PVC insulation sheathed suitable for working voltage upto 1100 Volts as per IS-694:1990. As per the direction of Engineer-in-charge.	40	Mtr	National / Polycab/ RR Cable / Finolex / Havells	
6	Supplying and flush mounting powder coated / Galvanized metal box suitable for mounting modular switch plates, the box should be firmly flush mounted after due groove cutting in brick / stone/ C.C wall.As per the direction of Engineer-in-charge.			Legrand / ABB / L&T / MK Honeywell	
6.1	1-2 Way	2	Each		
6.2	3 Way	2	Each		
6.3	6 Way	1	Each		
7	Supplying and fixing superior quality modular switch mounting polycarbonate plate with necessary supporting back plate with required number of machine screws,bolt nuts etc, complete on the existing metal / PVC box.As per the direction of Engineer-in-charge.			Legrand / ABB / L&T / MK Honeywell	
7.1	1-2 Module	2	Each		
7.2	3 Module	2	Each		
7.3	6 Module	9	Each		
7.4	12 Module	1	Each		
8	Supplying and fixing of modular switch & connected accessories on existing modular switch plate as per IS 3854 and IS 1293.As per the direction of Engineer-in-charge.			Legrand / ABB / L&T / MK Honeywell	

8.1	6 A one way switch	28	Each			
8.2	6 A Three-way socket	14	Each			
8.3	Stepped fan regulator two module	3	Each			
8.4	16 A one way switch	3	Each			
8.5	6/16 A universal socket	3	Each			
8.6	RJ45/ I.O Output Cat-6	2	Each			
8.7	Supply and installation of Modular blank plates	4	Each			
8.8	Supply and drawing UTP-CAT 6E LAN cable as per the direction of Engineer -in -charge.	20	Mtr	D-link / Belden		
9	Supply and installation of recess mounting nonintegrated type LED down lights. As per the direction of Engineer-in-charge.			Philips / Crompton / Wipro / Havells		
9.1	15-18 W	8	Each			
9,.2	10-12 W	8	Each			
10	Refixing ceiling fans of all capacities and all type to the existing S hook with fan regulator. As per the direction of Engineer-in-charge.	3	Each			
11	Supply and installation of Extra length of Fan rods. As per the direction of Engineer-in-charge.	3	Each			
12	Supply and installation of Strip light with Profile casing as per directions of Engineer-in -charge.	5	Mtr	Philips / Crompton / Wipro / Havells		
13	Supply and installation of Strip lights as per the direction of Engineer -in-charge.	5	Mtr	Philips / Crompton / Wipro / Havells		
14	Supply and installation of LED Driver as per the direction of Engineer-in-charge.	1	Each	Philips / Crompton / Wipro / Havells		
15	Miscellaneous works: Removing existing all tube lights, Fans, Fanrods, modular switches, sockets and plates etc. As direction of Engineer-in-charge.	1	Job			
Room N	No AG08/10 (88-seater classroom)				 	
1	Supply heavy guage PVC conduit pipe 25 dia 2 mm thick confirming to IS 2509 with suitable size bends, junction boxes, adhesive paste etc, and fixing using inverted wood plug in case of RCC ceiling and RCC walls / stone structure or raw plugs in case of brick walls and cement plastering and damaged portion using heavy gauge saddles at an interval of 700 mm using NF screws. As per the direction of Engineer -in -charge.	180	Mtr	Precision / VIP / Avonplast		
2	Supply heavy guage PVC conduit pipe 25 dia 2 mm thick with suitable size bends, junction boxes, adhesive paste etc,through the conduit where by groove cutting in the wall and fixing by bracing U or J hooks and cement plastering up to the wall surface and run with 18 SWG GI fish wire run throughout the conduit where ever necessary. As per the direction of Engineer -in-charge.	120	Mtr	Precision / VIP / Avonplast		

3	Providing PVC fexible Conduit pipe 25 mm dia fixing on surface over inverted tapered wooden plugs or phill plugs or rawl plugs and clamped using heavy gauge saddles of 300 mm using NF screws and on either end of the pipe terminated completely. As per the direction of Engineer-in-charge.	120	Mtr	Precision / VIP / Avonplast		
4	Wiring for lighting / power circuit using one of FRLS PVC insulated 1100V grade, multistrand copper wire with low conductor resistance single core in open or concealed system of wiring with specified IS 694:2010.As per the direction Of Engineer-in-charge.			National / Polycab/ RR Cable / Finolex / Havells		
4.1	1.5 Sqmm	900	Mtr			
4.2	2.5 Sqmm	600	Mtr			
4.3	4.0 Sqmm	140	Mtr			
5	Supplying and drawing flexible multicore cable manufactured with electrolytic grade flexible copper with low conductor confirming to IS 8130-1984 and PVC insulation sheathed suitable for working voltage upto 1100 Volts as per IS-694:1990.As per the direction of Engineer-in-charge.	100	Mtr	National / Polycab/ RR Cable / Finolex / Havells		
6	Supplying and flush mounting powder coated / Galvanized metal box suitable for mounting modular switch plates, the box should be firmly flush mounted after due groove cutting in brick / stone/ C.C wall. As per the direction of Engineer-in-charge.			Legrand / ABB / L&T / MK Honeywell		
6.1	1-2 Way	2	Each			
6.2	3 Way	2	Each			
6.3	6 Way	1	Each			
7	Supplying and fixing superior quality modular switch mounting polycarbonate plate with necessary supporting back plate with required number of machine screws, bolt nuts etc, complete on the existing metal / PVC box. As per the direction of Engineer-in-charge.			Legrand / ABB / L&T / MK Honeywell		
7.1	1-2 Module	2	Each			
7.2	3 Module	2	Each			
7.3	6 Module	18	Each			
7.4	12 Module	4	Each			
8	Supplying and fixing of modular switch & connected accessories on existing modular switch plate as per IS 3854 and IS 1293.As per the direction of Engineer-in-charge.			Legrand / ABB / L&T / MK Honeywell		
8.1	6 A one way switch	60	Each			
8.2	6 A Three way socket	28	Each			

8.3	Stepped fan regulator two module	8	Each			
8.4	16 A one way switch	6	Each			
8.5	6/16 A universal socket	6	Each			
8.6	RJ45/ I.O Output Cat-6	4	Each			
8.7	Supply and installation of Modular blank plates	10	Each			
8.8	Supply and drawing UTP-CAT 6E LAN cable as per the direction of Engineer -in -charge.	60	Mtr	D-link / Belden		
9	Supply and installation of recess mounting nonintegrated type LED down lights. As per the direction of Engineer-in-charge.			Philips / Crompton / Wipro / Havells		
9.1	15-18 W	16	Each			
9,.2	10-12 W	16	Each			
10	Refixing of ceiling fans of all capacities and all type to the existing S hook with fan regulator. As per the direction of Engineer-in-charge.	8	Each			
11	Supply and installation of Extra length of Fan rods. As per the direction of Engineer-in-charge.	8	Each			
12	Supply and installation of Strip light with Profile casing as per directions of Engineer-in -charge.	10	Mtr	Philips / Crompton / Wipro / Havells		
13	Supply and installation of Strip lights as per the direction of Engineer -in-charge.	10	Mtr	Philips / Crompton / Wipro / Havells		
14	Supply and installation of LED Driver as per the direction of Engineer-in-charge.	2	Each	Philips / Crompton / Wipro / Havells		
15	Miscellaneous works: Removing existing all tube lights, Fans, Fanrods ,modular switches, sockets and plates etc. As direction of Engineer-in-charge.	1	Job			
Room	No AG12 (42-seater classroom)					
1	Supply heavy guage PVC conduit pipe 25 dia 2 mm thick confirming to IS 2509 with suitable size bends, junction boxes, adhesive paste etc, and fixing using inverted wood plug in case of RCC ceiling and RCC walls / stone structure or raw plugs in case of brick walls and cement plastering and damaged portion using heavy gauge saddles at an interval of 700 mm using NF screws. As per the direction of Engineer -in -charge.	80	Mtr	Precision / VIP / Avonplast		
2	Supply heavy guage PVC conduit pipe 25 dia 2 mm thick with suitable size bends, junction boxes, adhesive paste etc, throught the conduit where by groove cutting in the wall and fixing by bracing U or J hooks and cement plastering upto the wall surface and run with 18 SWG GI fish wire run throughout the conduit where ever necessary. As per the direction of Engineer -in-charge.	30	Mtr	Precision / VIP / Avonplast		
3	Providing PVC fexible Conduit pipe 25 mm dia fixing on surface over inverted tapered wooden plugs or phill plugs or rawl plugs and clamped using heavy gauge saddles of 300 mm using NF screws and on either end of the pipe terminated completely. As per the direction of Engineer-in-charge.	100	Mtr	Precision / VIP / Avonplast		

4	Wiring for lighting / power circuit using one of FRLS PVC insulated 1100V grade, multistrand copper wire with low conductor resistance single core in open or concealed system of wiring with specified IS 694:2010.As per the direction 0f Engineer-in-charge.			National / Polycab/ RR Cable / Finolex / Havells		
4.1	1.5 mm2	350	Mtr			
4.2	2.5 mm2	100	Mtr			
4.3	4.0 mm2	40	Mtr			
5	6.0 mm2	40	Mtr			
6	Supplying and drawing flexible multicore cable manufactured with electrolytic grade flexible copper with low conductor confirming to IS 8130-1984 and PVC insulation sheathed suitable for working voltage upto 1100 Volts as per IS-694:1990. As per the direction of Engineer-in-charge.	125	Mtr	National / Polycab/ RR Cable / Finolex / Havells		
7	Supplying and flush mounting powder coated / Galvanized metal box suitable for mounting modular switch plates, the box should be firmly flush mounted after due groove cutting in brick / stone/ C.C wall. As per the direction of Engineer-in-charge.			Legrand / ABB / L&T / MK Honeywell		
7.1	1-2 Way	2	Each			
7.2	3 Way	2	Each			
7.3	6 Way	1	Each			
8	Supplying and fixing superior quality modular switch mounting polycarbonate plate with necessary supporting back plate with required number of machine screws, bolt nuts etc, complete on the existing metal / PVC box. As per the direction of Engineer-in-charge.			Legrand / ABB / L&T / MK Honeywell		
8.1	1-2 Module	2	Each			
8.2	3 Module	2	Each			
8.3	6 Module	9	Each			
8.4	12 Module	1	Each			
9	Supplying and fixing of modular switch & connected accessories on existing modular switch plate as per IS 3854 and IS 1293. As per the direction of Engineer-in-charge.			Legrand / ABB / L&T / MK Honeywell		
9.1	6 A one way switch	28	Each			
9.2	6 A Three-way socket	14	Each			
9.3	Stepped fan regulator two module	3	Each			

I						1
9.4	16 A one way switch	3	Each			
9.5	6/16 A universal socket	3	Each			
9.6	RJ45/ I.O Output Cat-6	2	Each			
10	Supply and installation of Modular blank plates	4	Each			
11	Supply and drawing UTP-CAT 6E LAN cable as per the direction of Engineer -in -charge.	40	Mtr	D-link / Belden		
12	Supply and installation of recess mounting nonintegrated type LED down lights. As per the direction of Engineer-in-charge.			Philips / Crompton / Wipro / Havells		
12.1	15-18 W	8	Each			
12.2	10-12 W	8	Each			
13	Supply and Fixing of ceiling fans of all capacities and including suitable hooks with fan. As per the direction of Engineer-in-charge.	3	Each	Havells / Orient / Usha / Bajaj		
14	Supply and installation of Extra length of Fan rods. As per the direction of Engineer-in-charge.	3	Each			
15	Supply and installation of Strip light with Profile casing as per directions of Engineer-in -charge.	5	Mtr	Philips / Crompton / Wipro / Havells		
16	Supply and installation of Strip lights as per the direction of Engineer -in-charge.	5	Mtr	Philips / Crompton / Wipro / Havells		
17	Supply and installation of LED Driver as per the direction of Engineer-in-charge.	1	Each	Philips / Crompton / Wipro / Havells		
18	Supplying and fixing regular MCB Distribution boards on wall flush mounting using required clamps,bolt,nutsetc with provision for fixing suitable type capacity MCBs single phase / 3 phase / double door with powder coated painting made out of 14 SWG MS enclosure as per direction of Engineer-in-charge.			Legrand / Siemens / ABB / C&S		
18.1 19	16 W SPN MCB DB (Double door)         Supply and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and C type curve, breaking capacity 10 K as per the direction of Engineer -in-charge.	1	Each	Legrand / Siemens / ABB / C&S		
19.1	6-32 A SP MCB	10	Each			
19.2	40 A DP MCB	1	Each			
20	Miscellaneous works: Removing existing all tube lights, Fans, Fan rods ,modular switches, sockets and plates etc. As direction of Engineer-in-charge.	1	Job			
Room 1	No A104 (78 -seater classroom)					
1	Supply heavy guage PVC conduit pipe 25 dia 2 mm thick confirming to IS 2509 with suitable size bends, junction boxes, adhesive paste etc, and fixing using inverted wood plug in case of RCC ceiling and RCC walls / stone structure or raw plugs in case of brick walls and cement plastering and damaged portion using heavy gauge saddles at an interval of 700 mm using NF screws. As per the direction of Engineer -in -charge.	60.00	Mtr	Precision / VIP / Avonplast		

2	Supply heavy guage PVC conduit pipe 25 dia 2 mm thick with suitable size bends, junction boxes, adhesive paste etc, throught the conduit where by groove cutting in the wall and fixing by bracing U or J hooks and cement plastering upto the wall surface and run with 18 SWG GI fish wire run throughout the conduit where ever necessary. As per the direction of Engineer -in-charge. Providing PVC fexible Conduit pipe 25 mm dia fixing on surface over inverted tapered wooden plugs or	100.00	Mtr	Precision / VIP / Avonplast Precision / VIP /						
3	phill plugs or rawl plugs and clamped using heavy gauge saddles of 300 mm using NF screws and on either end of the pipe terminated completely. As per the direction of Engineer-in-charge.	50.00	Mtr	Avonplast						
4	Wiring for lighting / power circuit using one of FRLS PVC insulated 1100V grade, multistand copper wire with low conductor resistance single core in open or concealed system of wiring with specified IS 694:2010.As per the direction Of Engineer-in-charge.			National / Polycab/ RR Cable / Finolex / Havells						
4.1	1.5 mm2	Mtr	240.00							
4.2	2.5 mm2	Mtr	480.00							
5	Supply and installation of Strip light with Profile casing as per directions of Engineer-in -charge.	Mtr	10	Philips / Crompton / Wipro / Havells						
6	Supply and installation of Strip lights as per the direction of Engineer -in-charge.	Mtr	10	Philips / Crompton / Wipro / Havells						
7	Supply and installation of LED Driver as per the direction of Engineer-in-charge.	Each	2	Philips / Crompton / Wipro / Havells						
A3. CI	A3. CIVIL WORK									
Room	No AG07 (49-seater classroom)									
1	Demolishing tile / granite work in floors and roofs laid in cement mortar including stacking of serviceable material and disposal of unserviceable material to the appropriate disposal area as per direction of Engineer - in -charge.	2	Sqm							
2	Cutting and removing of existing Aluminiumwindows, including cleaning the debris from spot etc., complete as per the instruction of Engineer-in-charge	2	Each							
3	Providing Brick work with common burnt clay machine moulded perforated bricks of class designation 5.0 conforming to IS: 2222 in superstructure above the plinth level in cement mortar 1:6 (1 cement: 6 sand) with non modular bricks .Including cost of all materials,louber,scaffolding and usage charges of machinery and other incidental charges complete as per the direction of Engineer -in-charge.	1.3	m3							
4	Providing 18 mm cement plaster in two coats under layer 12 mm thick cement plaster with cement mortar 1:5 (1 cement:5 coarse sand) finished with a top layer 6 mm thick cement plaster with cement mortar 1:3 (1 cement : 3 coarse sand) finished rough with sponge to brick masonry, including rounding off corners where ever required smooth rendering, providing and removing scaffolding,including cost of materials,labour,curing complete as per specifications and as per directions of Engineer -in-charge,	15	Sqm	OPC 43 grade cement						
5	Applying one coat of water thinnable cement primer of approved brand and manufacturer on wall surface,waterthinnable cement primer to give an even shade after thoroughly brooming the surface to remove all dirt,dust ,morter drops and foreign matter ,including preparing the surface even and sand paper smooth, cost of materials,labour complete as per specifications and as per directions Engineer-in-charge.	15	Sqm							
6	Providing and applying white cement-based putty of average thickness 1 mmof approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete as per specifications and as per directions of Engineer-in-charge.	7.5	Sqm	Birla/ASIAN						
7	Providing and applying two coats of High Albedo paint having minimum solar refective index 108 (with solar reflectance & thermal remittance tested as per ASTM) C1549 ans ASTM C1371 respectively) VOC less than 10 cc / g.The coating thickness and the methodology of application shall strictly as per manufacturer specifications and as approved by Engineer -in-charge,Surface preparation includes cleaning with metal wire brush to remove the all dust , fungus etc,washing with water all complete ,The contactor shall give grarantee for the performance of SRI and also the durability of coating all complete as per direction of Engineer-in-	7.5	Sqm	ASIAN						

	charge.			l			
8	Providing & fixing of sliding windows made out of multi chambered UPVC (Matching to RAL-9016) 2 glass shutter and one mesh SS shutter with top fixed combo, Glass: Saint Gobain Laminate-12.52 mm (5 mm clear Toughened + 1.52 PVB Layer + 6 mm clear Toughened).SWM outer frame 108x49mm,SWM Sash: 60x38mm,FW outer frame :60x60mm ,Gasket with all round insulation tapes,as per specifications and as per directions of Engineer-in-charge.	70	Sqft	V-Tech/ Fenesta/VEKA			
9	Painting with Synthetic enamal paint of approved brand and manufacture to give an even shade ,two coats on new work after throughly brooming the surface to remove all dirt,dust ,mortar drops and foreign matter including preparing the surface even sand papersmooth,cost of all materials ,labour complete as per specifications and as per directions of Engineer -in-charge	7.00	mtr				
10	Supply and installation of sun light control film as per the direction of Engineer -in-charge.	15.00	Sqf				
11	Providing and fixing Vision Panel existing door, using 5 mm thick plane glass , including making cutouts in the flush door and fixing in position with teakwood beading alround, including cost of all materials, and as directed by the Engineer-in-charge.	1.00	Each				
Room	No AG08/10 (88-seater classroom)			Γ	I	I	Ι
1	Cutting and removing of existing Aluminiumwindows, including cleaning the debris from spot etc., complete as per the instruction of Engineer-in-charge	4	Each				
2	Cutting and removing of existing window railing, including cleaning the debris from spot etc., complete as per the instruction of Engineer-in-charge	1	Each				
3	Demolishing brick / concrete work manually / by mechanical means including stacking of serviceable material and disposal of unserviceable material to the appropriate disposal area as per direction of Engineer - in -charge.	19	Cum				
4	Demolishing tile work in floors and roofs laid in cement mortar including stacking of serviceable material and disposal of unserviceable material to the appropriate disposal area as per direction of Engineer -in - charge.	140	Sqm				
5	Providing and constructing load bearing wall with solid concrete blocks of size 400x200x200mm having block density more than 1800kg/m3 and minimum compressive strength of 4.0 N/mm2 conforming to IS:2185 (Part-1)-2005 and constructed with CM 1:4 as per IS2572:2005 including cost of all materials, labour,scaffolding and curing usage charges of machinery etc complete as per specifications as directed by the Engineer-in-charge.	9	Sqm				
6	Providing and laying in position cement concrete for levelling course for all works in foundation. The granite /trap/basalt crushed graded coarse aggregates and fine aggregates as per relevent IS codes machine mixed, laid in layers not exceeding 150 mm thickness ,well compacted using plate vibrators, including all lead &lifts, cost of all materials of quality labours, usage charges of machinery, curing, and all other appurtenances required to complete the work as per technical specifications and as per the direction of Engineer-in-charge.						
6.1	Mix 1:3:6 using 20 mm nominal size graded crushed coarse aggregates	18	Cum				
7	Providing and laying cement concrete flooring 40 mm thick with 20 mm nominal size stone aggregate using 1:2:4 (1 Cement:2 coarse sand:4 graded stone aggregate)finished with a floating coat of near cement, including cement slurry complete as per direction of Engineer -in-charge	85	Sqm				
8	Providing and laying polished Granite stone flooring in required design and patterns in linear as well as curvelinear portion of the building all the complete as per the drawing with 18 mm thick stone slab over 20mm Avarage thick base of cement morter 1:4 (1 cement: 4 coarse sand) laid and jointed with cement slarry and pointing with white cement slurry admixed with pigment of matching shade including rubbing ,curing	15	Sqm				

	and polishing etc all complete as specified and as as directed by the Engineer-in-charge,					
9	Supply and installation Granite Skirting as per the direction of Engineer-in-charge.	12	Mtr			
10	Providing Brick work with common burnt clay machine moulded perforated bricks of class designation 5.0 conforming to IS: 2222 in superstructure above the plinth level in cement mortar 1:6 (1 cement: 6 sand) with non-modular bricks. Including cost of all materials, louber, scaffolding and usage charges of machinery and other incidental charges complete as per the direction of Engineer -in-charge.	1.3	Cum			
11	Providing 18 mm cement plaster in two coats under layer 12 mm thick cement plaster with cement mortar 1:5 (1 cement:5 coarse sand) finished with a top layer 6 mm thick cement plaster with cement mortar 1:3 (1 cement : 3 coarse sand) finished rough with sponge to brick masonry, including rounding off corners where ever required smooth rendering, providing and removing scaffolding,including cost of materials,labour,curing complete as per specifications and as per directions of Engineer -in-charge,	16	Sqm	OPC 43 grade cement		
12	Applying one coat of water thinnable cement primer of approved brand and manufacturer on wall surface, waterthinnable cement primer to give an even shade after thoroughly brooming the surface to remove all dirt, dust, morter drops and foreign matter , including preparing the surface even and sand papersmooth, cost of materials, labour complete as per specifications and as per directions Engineer-in-charge.	16	Sqm			
13	Providing and applying white cement based putty of average thickness 1 mm ,of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete as per specifications and as per directions of Engineer-in-charge.	16	Sqm	Birla/ASIAN		
14	Providing and applying two coats of High Albedo paint having minimum solar reflective index 108 (with solar reflectance & thermal remittance tested as per ASTM) C1549 and ASTM C1371 respectively) VOC less than 10 cc / g.The coating thickness and the methodology of application shall strictly as per manufacturer specifications and as approved by Engineer -in-charge,Surface preparation includes cleaning with metal wire brush to remove the all dust , fungus etc.,washing with water all complete ,The contactor shall give guarantee for the performance of SRI and also the durability of coating all complete as per direction of Engineer-in-charge.	7.5	Sqm	ASIAN		
15	Distempering with oil bound washable distemper of approved brand and manufacturer to give an even shade New work (two coats) over and including water thinnable priming coat with cement primer after thoroughly brooming the surface to remove all dirt, dust, mortar drops and foreign matter including preparing the surface even and sand paper smooth coat of materials, labour complete as per specification and as per direction of Engineer-in-charge.	5	Sqm			
16	Providing & fixing of sliding windows made out of multi chambered UPVC (Matching to RAL-9016) 2 glass shutter and one mesh SS shutter with top fixed combo, Glass: Saint Gobain Laminate-12.52 mm (5 mm clear Toughened + 1.52 PVB Layer + 6 mm clear Toughened).SWM outer frame 108x49mm,SWM Sash: 60x38mm,FW outer frame :60x60mm,Gaskewithall round insulation tapes,as per specifications and as per directions of Engineer-in-charge.	105	Sqft	V-Tech/ Fenesta/VEKA		
17	Removing and refixing of existing door with alteration as per direction of Engineer-in-charge.	1	Each			
18	Providing and laying Vitrified tiles with thickness 9-10 mm in floor with different sizes with water absorption less than 0.08% and conforming to IS:15622 of approved brand &manufacturer, in all colours and shade, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS:15477, in average 6 mm thickness, including grouting joints . Size of Tile 600 x 600 mm	140	Sqm	Johnson/ Somany/Naveen		
19	Providing and laying for tiles skirting as per the direction of Engineer-in-charge	30	Mtr			
20	All debris to be removed from site and as per the direction of Engineer-in-charge	1	Job			
21	Painting with Synthetic enamal paint of approved brand and manufacture to give an even shade ,two coats on new work after throughly brooming the surface to remove all dirt,dust ,mortar drops and foreign matter including preparing the surface even sand papersmooth,cost of all materials ,labour complete as per specifications and as per directions of Engineer -in-charge	14.00	mtr			

22	Supply and installation of sun light control film as per the direction of Engineer -in-charge.	30.00	Sqf			
Room N	No AG12 (42-seater classroom)					
1	Cutting and removing of existing teak wood window and glass etc, and alternation to be made as per the requirement, as per direction of Engineer-in-charge.	1.5	Sqm			
2	Demolishing tile /granite work in floors and roofs laid in cement mortar including stacking of serviceable meterial and disposal of unserviceable material to the appropriate disposal area as per direction of Engineer - in -charge.	9	Sqm			
3	Earth work excavation by manual means for foundation of building and such similar works in all kinds of soils, as per the technical specification, including cost of labour,tools and other appurtenances require to complete the work as per direction of Engineer-in-charge.	2	Cum			
4	Providing and laying in position cement concrete for levelling course for all works in foundation. The granite /trap/basalt crushd graded coarse aggregates and fine aggregates as per relevent IS codes machine mixed, laid in layers not exceeding 150 mm thickness ,well compacted using plate vibrators, including all lead &lifts, cost of all materials of quality labours, usage charges of machinery, curing, and all other apputenances required to complete the work as per technical specifications and as per the direction of Engineer-in-charge.					
5	Mix 1:3:6 using 20 mm nominal size graded crushed coarse aggregates	5	Cum			
6	M25 design mix using 20 mm nominal size graded crushed coarse aggregates	6	Cum			
7	Providing and laying cement concrete flooring 40 mm thick with 20 mm nominal size stone aggregate using 1:2:4 (1 Cement:2 coarse sand:4 graded stone aggregate)finished with a floating coat of near cement, including cement slurry complete as per direction of Engineer -in-charge	10	Sqm			
8	providing and fixing temparary form work for all RCC membars using 20 mm thick flay wood and supporting with caserena poles including leveling fixing in position application of oil to suit site condition etc complete as per direction of Engineer-in-charge,	65	Sqm			
9	Supplying fitting and placing TMT EE 550/550D steel reinforcement including cost of all materials, machinery,labour,cleaning,straightening,cutting,bending,hooking,laping/welding joints,tying with binding wire / soft aneeealed steel wire and other ancilary operations complete as per direction of Engineer-in-charge.	1.5	Ton	TMTEE 550/ 550D		
10	Providing and constructing load bearing wall with solid concrete blocks of size 400x200x200mm having block density more than 1800kg/m3 and minimum compressive strength of 4.0 N/mm2 conforming to IS:2185 (Part-1)-2005 and constructed with CM 1:4 as per IS2572:2005 including cost of all materials, labour,scaffolding and curing usage charges of machinery etc complete as per specifications as directed by the Engineer-in-charge.	90	Sqm			
11	Providing 18 mm cement plaster in two coats under layer 12 mm thick cement plaster with cement mortar 1:5 (1 cement:5 coarse sand) finished with a top layer 6 mm thick cement plaster with cement mortar 1:3 (1 cement : 3 coarse sand) finished rough with sponge to brick masonry, including rounding off corners where ever required smooth rendering, providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications and as per directions of Engineer -in-charge,	180	Sqm	OPC 43 Grade Cement		
12	Applying one coat of water thinnable cement primer of approved brand and manufacturer on wall surface,waterthinnable cement primer to give an even shade after throughly brooming the surface to remove all dirt,dust ,morter drops and foreign matter ,including preparing the surface even and sand papersmooth,cost of materials,labour complete as per specifications and as per directions Engineer-in- charge.	170	Sqm			
13	Providing and applying white cement based putty of average thickness 1 mm ,of approved brand and manufacturer,over the plastered wall surface to prepare the surface even and smooth complete as per specifications and as per directions of Engineer-in-charge.	170	Sqm	Birla/ASIAN		
14	Distempering with oil bound washable distemper of approved brand and manufacturer to give an even shade New work (two coats) over and including water thinnable priming coat with cement primer after thoroughly brooming the surface to remove all dirt, dust, mortar drops and foreign matter including preparing the surface even and sand paper smooth coat of materials, labour complete as per specification and as per direction of Engineer-in-charge.	170	Sqm			

<mark>A4. W</mark>	RITING BOARDS and ROLLER BLINDS					
4	Supply and installation of sun light control film as per the direction of Engineer -in-charge.	30.00	Sqf			
3	Painting with Synthetic enamal paint of approved brand and manufacture to give an even shade ,two coats on new work after throughly brooming the surface to remove all dirt,dust ,mortar drops and foreign matter including preparing the surface even sand papersmooth,cost of all materials ,labour complete as per specifications and as per directions of Engineer -in-charge	14.00	mtr			
2	Providing & fixing of sliding windows made out of multi chambered UPVC (Matching to RAL-9016) 2 glass shutter and one mesh SS shutter with top fixed combo, Glass: Saint Gobain Laminate-12.52 mm (5 mm clear Toughened + 1.52 PVB Layer + 6 mm clear Toughened).SWM outer frame 108x49mm,SWM Sash: 60x38mm,FW outer frame :60x60mm ,Gasket with all round insulation tapes,as per specifications and as per directions of Engineer-in-charge.	140	Sqft	V-Tech/ Fenesta/VEKA		
1	Cutting and removing of existing Aluminiumwindows, including cleaning the debris from spot etc., complete as per the instruction of Engineer-in-charge	4	Each			
Room N	No AG09/11 (110-seater classroom)					
3	Painting with Synthetic enamal paint of approved brand and manufacture to give an even shade ,two coats on new work after throughly brooming the surface to remove all dirt,dust ,mortar drops and foreign matter including preparing the surface even sand papersmooth,cost of all materials ,labour complete as per specifications and as per directions of Engineer -in-charge	7.00	mtr			
2	Providing & fixing of sliding windows made out of multi chambered UPVC (Matching to RAL-9016) 2 glass shutter and one mesh SS shutter with top fixed combo, Glass: Saint Gobain Laminate-12.52 mm (5 mm clear Toughened + 1.52 PVB Layer + 6 mm clear Toughened).SWM outer frame 108x49mm,SWM Sash: 60x38mm,FW outer frame :60x60mm ,Gasket with all round insulation tapes,as per specifications and as per directions of Engineer-in-charge.	70	Sqft	V-Tech/ Fenesta/VEKA		
1	Cutting and removing of existing Aluminiumwindows, including cleaning the deberies from spot etc., complete as per the instruction of Engineer-in-charge	2	Each			
Room N	No AG04 (49-seater classroom)					
19	All deberies to be removed from site and as per the direction of Engineer-in-charge	1	Job			
18	Providing & fixing of sliding windows made out of multi chambered UPVC (Matching to RAL-9016) 2 glass shutter and one mesh SS shutter with top fixed combo, Glass: Saint Gobain Laminate-12.52 mm (5 mm clear Toughened + 1.52 PVB Layer + 6 mm clear Toughened).SWM outer frame 108x49mm,SWM Sash: 60x38mm,FW outer frame :60x60mm ,Gaskewithall round insulation tapes,as per specifications and as per directions of Engineer-in-charge.	20	Sqft	V-Tech/ Fenesta/VEKA		
17	Providing and fixing teek wood door using 75 mm x 150 mm size teak wood section, 40 mm thick both side teak flush shutters with vision panel, including fixing of MS Hold fasts in concrete ,anti terminate paint to the contact surfaces with machinary ,Teek wood polish, fixing of all necessary fixings and fixtures etc, as per the direction of Engineer -in-charge. For door size 3.6 feet X 8 feet	1	Set	Teak Wood		
16	Supply and installation Granite Skriting as per the direction of Engineer-in-charge.	8	Mtr			
15	Providing and laying polished Granite stone flooring in required design and patterns in linear as well as curvelinear portion of the building all the complete as per the drawing with 18 mm thick stone slab over 20mm Avarage thick base of cement morter 1:4 (1 cement: 4 coarse sand) laid and jointed with cement slarry and pointing with white cement slarry admixed with pigment of maching shade including rubbing ,curing and polishing etc all complete as specified and as as directed by the Engineer-in-charge,	32	Sqm			

Room N	o AG07 (49-seater classroom)					
1	Supply and Installation of writing board Size:3.8x1.2 Mtrs of Anti Rust Porcelain-based Enameled Steel Plates Ceramic Green Board complete as required.	1	Nos	Reputed		
2	Supply and Installation of roller blind on existing window with all fittings and fixing arrangement as per direction of engineer-in-charge.	5.6	Sqm	Reputed		
Room N	o AG08/10 (88-seater classroom)					
1	Supply and Installation of writing board Size:7x1.2 Mtrs of Anti Rust Porcelain-based Enameled Steel Plates Ceramic Green Board complete as required.	1	Nos	Reputed		
2	Supply and Installation of roller blind on existing window with all fittings and fixing arrangement as per direction of engineer-in-charge.	8.4	Sqm	Reputed		
Room N	o AG12 (42-seater classroom)					
1	Supply and Installation of writing board Size:3.8x1.2 Mtrs of Anti Rust Porcelain-based Enameled Steel Plates Ceramic Green Board complete as required.	1	Nos	Reputed		
2	Supply and Installation of roller blind on existing window with all fittings and fixing arrangement as per direction of engineer-in-charge.	2.8	Sqm	Reputed		
Room N	o A104 (78-seater classroom) (only Writing Board)					
1	Supply and Installation of writing board Size:7x1.2 Mtrs of Anti Rust Porcelain-based Enameled Steel Ceramic White Board complete as required.	1	Nos	Reputed		
	B. FURNIT	URE				
Deem N						
1	<ul> <li>o AG07 (49-seater classroom)</li> <li>Supply and Installation of Classroom furniture, complete with all standard accessories.</li> <li>Mid Row</li> <li>Size - 1100L x 900D x 815H (2 seater )</li> <li>Specifications : Table top made up of 25mm thick prelaminated particle board with matching 2mm edge lipping.10mm thk ply moulded BSL back rest / modesty with clear melamine finished edges &amp; Size of each back rest540L x 355Ht.Two seater will have two back rests and three seater will have three.Such back rests are connectedeach other using high quality ABS moulded connectors to get proper alignment.</li> <li>Fixed seat: It's a 14mm thk high quality moulded ply with laminate finish on top of size 450mm L x 380mm D. Themoulded ply seat is mounted on a robust 4mm thk MS – press formed bracket. The seat &amp; bracket are designed to take care of adequate load.</li> <li>Horrizantal Beams: Beams are extruded aluminium of 6063 grade alum alloy &amp;comes with anodised finish. Top &amp;Bottom beam with a rounded square section provided with adequate internal ribbing to take care of cantilever load.</li> <li>Feet: It is made out of 16g (1.60mm thk) CRCA sheet with powder coating finish of 40-60 microns. Each desk will have 1number bag hook.</li> </ul>	12	Sets	Featherlite/Monar ch/Wipro		

1			1		
1.1	Last Row Size - 1100L x 600D x 815H (2 seater) Specifications : Table top made up of 25mm thick prelaminated particle board with matching 2mm edge lipping.10mm thk ply moulded BSL back rest / modesty with clear melamine finished edges & Size of each back rest540L x 355Ht.Two seater will have two back rests and three seater will have three.Such back rests are connectedeach other using high quality ABS moulded connectors to get proper alignment. Fixed seat: It's a 14mm thk high quality moulded ply with laminate finish on top of size 450mm L x 380mm D. Themoulded ply seat is mounted on a robust 4mm thk MS – press formed bracket. The seat & bracket are designed totake care of adequate load. Horrizantal Beams: Beams are extruded aluminium of 6063 grade alum alloy & comes with anodised finish. Top & Bottom beam with a rounded square section provided with adequate internal ribbing to take care of cantilever load. Feet: It is made out of 16g (1.60mm thk) CRCA sheet with powder coating finish of 40-60 microns. Each desk will have 1number bag hook"	2	Sets	Featherlite / Monarch / Wipro	
1.2	Mid Row Size - 1650L x 900D x 815H (3 Seater ) Specifications : Table top made up of 25mm thick prelaminated particle board with matching 2mm edge lipping.10mm thk ply moulded BSL back rest / modesty with clear melamine finished edges & Size of each back rest540L x 355Ht.Two seater will have two back rests and three seater will have three.Such back rests are connectedeach other using high quality ABS moulded connectors to get proper alignment. Fixed seat: It's a 14mm thk high quality moulded ply with laminate finish on top of size 450mm L x 380mm D. Themoulded ply seat is mounted on a robust 4mm thk MS – press formed bracket. The seat & bracket are designed totake care of adequate load. Horrizantal Beams: Beams are extruded aluminium of 6063 grade alum alloy & comes with anodised finish. Top &Bottom beam with a rounded square section provided with adequate internal ribbing to take care of cantilever load. Feet: It is made out of 16g (1.60mm thk) CRCA sheet with powder coating finish of 40-60 microns. Each desk will have 1number bag hook	6	Sets	Featherlite / Monarch / Wipro	
1.3	Last Row SIZE - 1650L x 600D x 815H (3 Seater ) Specifications : Table top made up of 25mm thick prelaminated particle board with matching 2mm edge lipping.10mm thk ply moulded BSL back rest / modesty with clear melamine finished edges & Size of each back rest540L x 355Ht.Two seater will have two back rests and three seater will have three.Such back rests are connectedeach other using high quality ABS moulded connectors to get proper alignment. Fixed seat: It's a 14mm thk high quality moulded ply with laminate finish on top of size 450mm L x 380mm D. Themoulded ply seat is mounted on a robust 4mm thk MS – press formed bracket. The seat & bracket are designed totake care of adequate load. Horrizantal Beams: Beams are extruded aluminium of 6063 grade alum alloy & comes with anodised finish. Top &Bottom beam with a rounded square section provided with adequate internal ribbing to take care of cantilever load. Feet: It is made out of 16g (1.60mm thk) CRCA sheet with powder coating finish of 40-60 microns. Each desk will have 1number bag hook	1	Set	Featherlite / Monarch / Wipro	
Room No	) AG08/10 (88-seater classroom)				
1	Supply and Installation of Classroom seating with all standard accessories Size - 1200L x 950D x 750H (2 Seater)	44	Sets	Featherlite / Monarch/ Wipro	

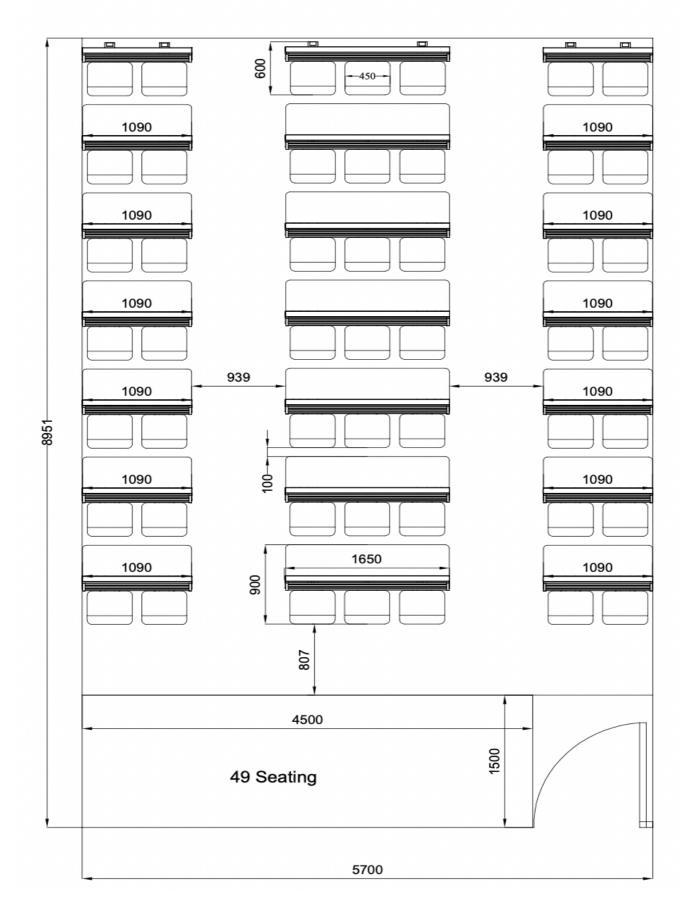
Desk is also fitted with a well-designed, sleek & laser finished metal modesty panel.         Seats are attached on either side of the Leg through the swing mechanism.         Swing mechanism is connected to the Leg through a heavy, thick & strong high pressure aluminium Die         Cast part. All metal and diecast parts come with powder coating finish of 50-80 micron thickness.         Seats also come with the feature of height adjustment. Seat height can be adjustable based on student /         user's seating comfort.         The desk comes with a bag hook welded to the both ends of the worksurface support beam. Support beam is         a 40x40x1.60 thk MS ERW tubular structure, fixed to the steel Leg.         Note - Grouting requires 4-to-5-inch thick Strong RCC flooring.	
Room No AG12 (42-seater classroom)         Supply and Installation of Classroom seating with all standard accessories	
Suppry and instantion of Classform scaling with an standard accessives         Mid Row         Size - 1100L x 600D x 815H (3 Seater )         Specifications : Table top made up of 25mm thick prelaminated particle board with matching 2mm edge         lipping.10mm thk ply moulded BSL back rest / modesty with clear melamine finished edges & Size of each         back rest 540L x 355Ht.Two seater will have two back rests and three seater will have three.Such back rests         are connected each other using high quality ABS moulded connectors to         get proper alignment.         Fixed seat: It's a 14mm thk high quality moulded ply with laminate finish on top of size 450mm L x 380mm         D. The moulded ply seat is mounted on a robust 4mm thk MS – press formed bracket. The seat & bracket         are designed to take care of adequate load.         Horrizantal Beams: Beams are extruded aluminium of 6063 grade alum alloy &comes with anodised finish.         Top & Bottom beam with a rounded square section provided with adequate internal ribbing to take care of cantilever load.         Feet: It is made out of 16g (1.60mm thk) CRCA sheet with powder coating finish of 40-60 microns.         Each desk will have 1 number bag hook	
Last Row       Size - 1650L x 600D x 815H (3 Seater)         Specifications : Table top made up of 25mm thick prelaminated particle board with matching 2mm edge       lipping.10mm thk ply moulded BSL back rest / modesty with clear melamine finished edges & Size of each back rest 540L x 355Ht. Two seater will have two back rests and three seater will have three.Such back rests are connected each other using high quality ABS moulded connectors to get proper alignment.       2       Sets       Featherlite / Monarch / Wipro         1.1       Prixed seat: It's a 14mm thk high quality moulded ply with laminate finish on top of size 450mm L x 380mm D. The moulded ply seat is mounted on a robust 4mm thk MS – press formed bracket. The seat & bracket are designed to take care of adequate load. Horrizantal Beams: Beams are extruded aluminium of 6063 grade alum alloy &comes with anodised finish. Top & Bottom beam with a rounded square section provided with adequate internal ribbing to take care of cantilever load. Feet: It is made out of 16g (1.60mm thk) CRCA sheet with powder coating finish of 40-60 microns. Each desk will have 1number bag hook       2       Sets       Featherlite / Monarch / Wipro	
Room No A104 (78-seater classroom)	

	Supply and Installation of Classroom seating with all standard accessories	1				1
1	<ul> <li>SIZE - 1200L x 950D x 750H (2 seater)</li> <li>Specifications : Overall size of desk with two seats comes to 1200L x 950D x 750H</li> <li>Table top is made of prelampartical board material, which is water resistant and comes with a reverse waterfall edge design.</li> <li>This product comes with the desk &amp; two chairs. Chairs are mounted on the swing mechanism that enables chairs to move front &amp; back by about 30deg. This mechanism not only makes it easy for the student or user to get in &amp; out, but also saves / optimises the space.</li> <li>The desk and chairs are fixed to the Leg, which is Steel formed &amp; welded structure of about 65-70mm thick, it's unique in design &amp; shape. Comes with a grouting arrangement.</li> <li>Desk is also fitted with a well-designed, sleek &amp; laser finished metal modesty panel.</li> <li>Seats are attached on either side of the Leg through the swing mechanism.</li> <li>Swing mechanism is connected to the Leg through a heavy, thick &amp; strong high pressure aluminium Die Cast part. All metal and diecast parts come with powder coating finish of 50-80 micron thickness.</li> <li>Seats also come with the feature of height adjustment. Seat height can be adjustable based on student / user's seating comfort.</li> <li>The desk comes with a bag hook welded to the both ends of the worksurface support beam. Support beam is a 40x40x1.60 thk MS ERW tubular structure, fixed to the steel Leg.</li> <li>Note - Grouting requires 4-to-5-inch thick Strong RCC flooring.</li> </ul>	39	Sets	Featherlite / Monarch / Wipro		
Room No	AG04 (49-seater classroom)					
1	Supply and Installation of Classroom furniture, complete with all standard accessories. Mid Row Size - 1100L x 900D x 815H (2 seater) Specifications : Table top made up of 25mm thick prelaminated particle board with matching 2mm edge lipping.10mm thk ply moulded BSL back rest / modesty with clear melamine finished edges & Size of each back rest 540L x 355H.Two seater will have two back rests and three seater will have three.Such back rests are connected each other using high quality ABS moulded connectors to get proper alignment. Fixed seat: It's a 14mm thk high quality moulded ply with laminate finish on top of size 450mm L x 380mm D. The moulded ply seat is mounted on a robust 4mm thk MS – press formed bracket. The seat & bracket are designed to take care of adequate load. Horrizantal Beams: Beams are extruded aluminium of 6063 grade alum alloy &comes with anodised finish. Top &Bottom beam with a rounded square section provided with adequate internal ribbing to take care of cantilever load. Feet: It is made out of 16g (1.60mm thk) CRCA sheet with powder coating finish of 40-60 microns. Feach deal will beam lammbachese heals	12	Sets	Featherlite / Monarch / Wipro		
1.1	Each desk will have 1number bag hook. Last Row Size - 1100L x 600D x 815H (2 seater) x 2Sets = 4Nos.) Specifications : Table top made up of 25mm thick prelaminated particle board with matching 2mm edge lipping.10mm thk ply moulded BSL back rest / modesty with clear melamine finished edges & Size of each back rest540L x 355Ht.Two seater will have two back rests and three seater will have three.Such back rests are connectedeach other using high quality ABS moulded connectors to get proper alignment. Fixed seat: It's a 14mm thk high quality moulded ply with laminate finish on top of size 450mm L x 380mm D. Themoulded ply seat is mounted on a robust 4mm thk MS – press formed bracket. The seat & bracket are designed totake care of adequate load. Horrizantal Beams: Beams are extruded aluminium of 6063 grade alum alloy & comes with anodised finish. Top &Bottom beam with a rounded square section provided with adequate internal ribbing to take	2	Sets	Featherlite / Monarch / Wipro		

	care of cantilever load. Feet: It is made out of 16g (1.60mm thk) CRCA sheet with powder coating finish of 40-60 microns. Each desk will have 1number bag hook"					
1.2	Mid Row Size - 1650L x 900D x 815H (3 Seater ) Specifications : Table top made up of 25mm thick prelaminated particle board with matching 2mm edge lipping.10mm thk ply moulded BSL back rest / modesty with clear melamine finished edges & Size of each back rest540L x 355Ht.Two seater will have two back rests and three seater will have three.Such back rests are connectedeach other using high quality ABS moulded connectors to get proper alignment. Fixed seat: It's a 14mm thk high quality moulded ply with laminate finish on top of size 450mm L x 380mm D. Themoulded ply seat is mounted on a robust 4mm thk MS – press formed bracket. The seat & bracket are designed totake care of adequate load. Horrizantal Beams: Beams are extruded aluminium of 6063 grade alum alloy & comes with anodised finish. Top &Bottom beam with a rounded square section provided with adequate internal ribbing to take care of cantilever load. Feet: It is made out of 16g (1.60mm thk) CRCA sheet with powder coating finish of 40-60 microns. Each desk will have 1number bag hook	б	Sets	Featherlite / Monarch / Wipro		
1.3	Last Row SIZE - 1650L x 600D x 815H (3 Seater) Specifications : Table top made up of 25mm thick prelaminated particle board with matching 2mm edge lipping.10mm thk ply moulded BSL back rest / modesty with clear melamine finished edges & Size of each back rest540L x 355Ht.Two seater will have two back rests and three seater will have three.Such back rests are connectedeach other using high quality ABS moulded connectors to get proper alignment. Fixed seat: It's a 14mm thk high quality moulded ply with laminate finish on top of size 450mm L x 380mm D. Themoulded ply seat is mounted on a robust 4mm thk MS – press formed bracket. The seat & bracket are designed totake care of adequate load. Horrizantal Beams: Beams are extruded aluminium of 6063 grade alum alloy & comes with anodised finish. Top &Bottom beam with a rounded square section provided with adequate internal ribbing to take care of cantilever load. Feet: It is made out of 16g (1.60mm thk) CRCA sheet with powder coating finish of 40-60 microns. Each desk will have 1number bag hook	1	Set	Featherlite / Monarch / Wipro		
	C. AUDIO-VI	SUAL				
Room N AUDIO	o AG08/10 (88-seater classroom)				-	
1	Supply, Installation, Testing and Commissioning of Ceiling Speaker: Frequency Response 85 Hz - 19 kHz, with 3.25" LF driver, Sensitivity 83 dB, Power with 25W at 70V / 100V.	6	Nos	JBL / BOSE / Meyer Sound		
2	Supply, Installation, Testing and Commissioning of Mixer Amplifier: Frequency Response 50Hz - 15kHz, Power 500W, 6 mic input, USB, Impedance 4,8Ω,70V/100V.	1	Nos	JBL / BOSE / Power Soft		
3	Supply, Installation, Testing and Commissioning of Wireless Handheld Microphone Vocal Set: Gain control on pocket transmitter, Up to 30h playtime with one single AA battery, Plug & Play, Low battery indicator.	2	Nos	AKG / Shure / Sennheiser		
4	Supply, Installation, Testing and Commissioning of Wireless Collar Microphone: Carrier frequency range 500 – 865 MHz Modulation FM, Radio range (Line of sight)30m, Number of selectable frequencies 8, Battery type LR6 AA alkaline Battery, Operating time 8 hrs, Lapel Mic Electrical impedance 200 Ohms, Polar Pattern Cardioid.	1	Nos	AKG / Shure / Sennheiser		

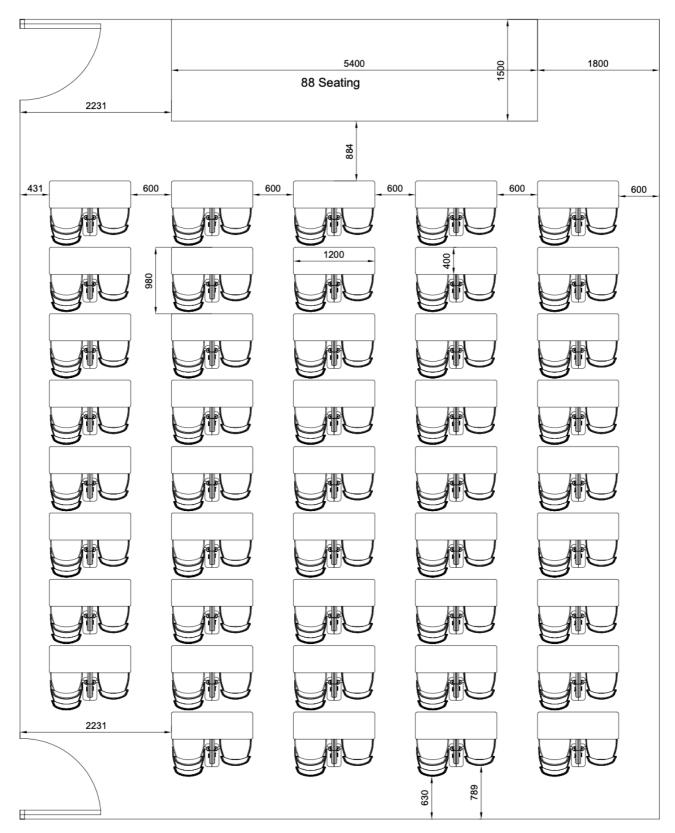
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5	Supply, Installation, Testing and Commissioning of 9U Equipment Rack: Includes tray, power strip, cooling fan.	1	Nos	D-Link / Netrack / Valrack		
6	Supply and Laying of Speaker Cable: 2 core 1.5 sq mm OFC speaker cable.	50	Mtr	Krystal / Belden / Krammer		
<b>VIDEO</b>						
1	Supply, Installation, Testing and Commissioning of Projector :Up to 5,200 lumens of equal Colour and White Brightness1, Full HD WUXGA support, accepts 4K signal, Contrast ratio 2500000:1,Laser light source — up to 20,000 hours of use,Decibel Rating : 35 dB, Display from 127 cm (50 inch) to 1,270 cm (500 inch) diagonal (16:10) or ultra-wide (16:6) diagonal.	1	Nos	Epson / Christie / Barco		
2	Supply, Installation, Testing and Commissioning of Screen : Motorized Projection Screen, Size 137", Aspect ratio 16:10, Viewing Height 6', Viewing Width 9.6'.	1	Nos	Suvira / Elite screens / Chief		
3	Supply, Installation, Testing and Commissioning of Wall Plate: HDMI 2.0V Wall Plate Female to Female.	1	Nos	Liberty AV / Krammer / Extron		
4	Supply and Laying of HDMI Cable 15 mtrs	1	Nos	Liberty AV / Krammer / Extron		
5	Supply and Laying of HDMI Cable 3 mtrs	1	Nos	Liberty AV / Krammer / Extron		
6	Supply, Installation, Testing and Commissioning of Mount Kit : Provided for fixing the projector to the ceiling.	1	Nos	NT / Elite / Chief		
Doom N	o A104 (78-seater classroom)					
AUDIO						
1	Supply, Installation, Testing and Commissioning of Ceiling Speaker: Frequency Response 85 Hz - 19 kHz, with 3.25" LF driver, Sensitivity 83 dB, Power with 25W at 70V / 100V.	6	Nos	JBL / BOSE / Meyer Sound		
2	Supply, Installation, Testing and Commissioning of Mixer Amplifier: Frequency Response 80 Hz to 18 kHz, Power 240W, 4 mic/line inputs and 1 BGM input, USB/Bluetooth.	1	Nos	JBL / BOSE / Power Soft		
3	Supply, Installation, Testing and Commissioning of Wireless Handheld Microphone Vocal Set: Gain control on pocket transmitter, Up to 30h playtime with one single AA battery, Plug & Play, Low battery indicator.	1	Nos	AKG / Shure / Sennheiser		
4	Supply, Installation, Testing and Commissioning of Wireless Collar Microphone: Carrier frequency range 500 – 865 MHz Modulation FM, Radio range (Line of sight)30m, Number of selectable frequencies 8, Battery type LR6 AA alkaline Battery, Operating time 8 hrs, Lapel Mic Electrical impedance 200 Ohms, Polar Pattern Cardioid.	1	Nos	AKG / Shure / Sennheiser		
5	Supply, Installation, Testing and Commissioning of 6U Equipment Rack: Includes tray, power strip, cooling fan.	1	Nos	D-Link / Netrack / Valrack		
6	Supply and Laying of Speaker Cable: 2 core 1.5 sq mm OFC speaker cable.	50	Mtr	Krystal / Belden / Krammer		
<b>VIDEO</b>				1		
1	Supply, Installation, Testing and Commissioning of Projector :Up to 5,200 lumens of equal Colour and White Brightness1, Full HD WUXGA support, accepts 4K signal, Contrast ratio 2500000:1,Laser light source — up to 20,000 hours of use,Decibel Rating : 35 dB, Display from 127 cm (50 inch) to 1,270 cm (500 inch) diagonal (16:10) or ultra-wide (16:6) diagonal.	1	Nos	Epson / Christie / Barco		
2	Supply, Installation, Testing and Commissioning of Screen : Motorized Projection Screen, Size 137", Aspect ratio 16:10, Viewing Height 6', Viewing Width 9.6'.	1	Nos	Suvira / Elite screens / Chief		

3	Supply, Installation, Testing and Commissioning of Wall Plate: HDMI 2.0V Wall Plate Female to Female.	1	Nos	Liberty AV / Krammer / Extron		
4	Supply and Laying of HDMI Cable 15 mtrs	1	Nos	Liberty AV / Krammer / Extron		
5	Supply and Laying of HDMI Cable 3 mtrs	1	Nos	Liberty AV / Krammer / Extron		
6	Supply, Installation, Testing and Commissioning of Mount Kit : Provided for fixing the projector to the ceiling.	1	Nos	NT / Elite / Chief		



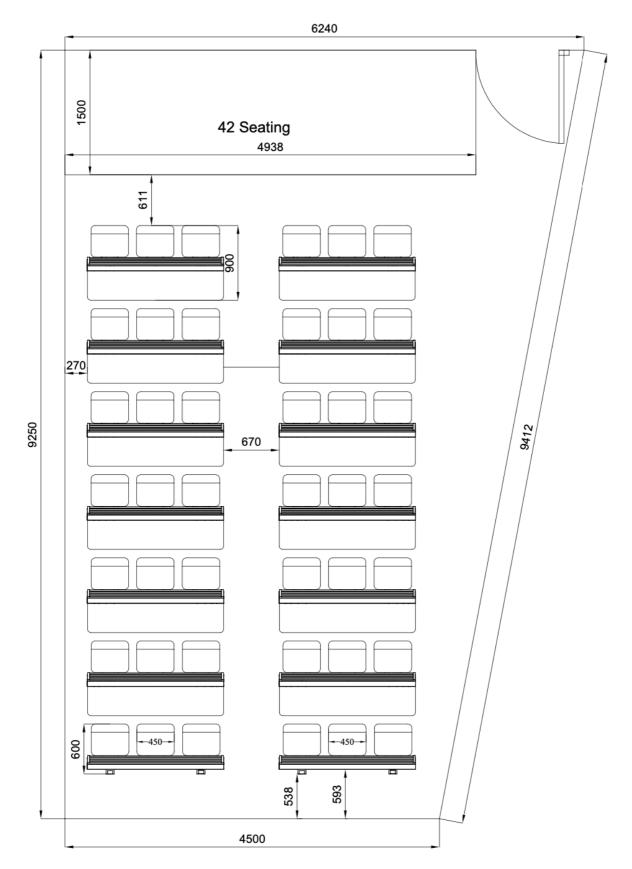
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**Classrooms AG07 and AG04** 



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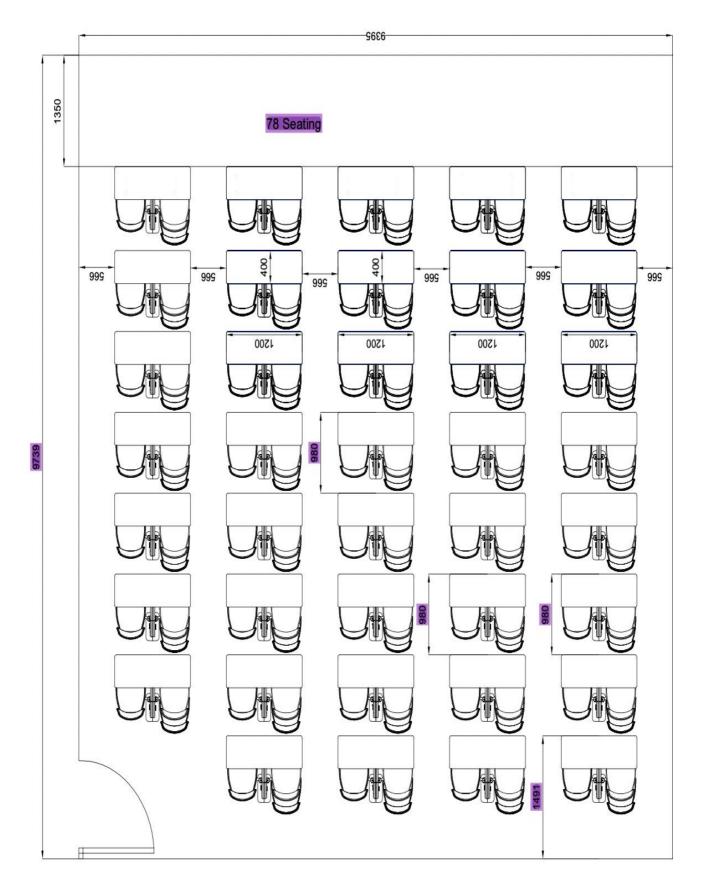
## Classroom AG08/10



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## **Classroom AG12**

## **Classroom A104**



Tender No: IISc/CSB-CR/2024-25

Tender Date: 14.10.2024

Item Description: Supply and Installation of Acoustic Panels, Furniture, Lighting and Audio-Visual Equipment for Classrooms at Chemical Sciences Building, IISc

Indian Institute of Science Bangalore-560012

Annexure-1:

**Bidder details** 

The bidder must provide the following mandatory information & attach copies wherever mentioned:

Details of the Bidders					
Description	Particulars				
Name of the Bidder					
Nature of Bidder					
(Pvt Ltd or Public Ltd Co/ Partnership firm etc)					
(Attach attested copy of Certificate of Incorporation/ Partnership Deed)					
Registration No/ Trade License,					
(if any attach copy)					
Registered Office Address					
Address for Communication					
Contract person					
Name					
Designation					
Telephone No					
Email ID					
	Description         Name of the Bidder         Nature of Bidder         (Pvt Ltd or Public Ltd Co/ Partnership firm etc)         (Attach attested copy of Certificate of Incorporation/ Partnership Deed)         Registration No/ Trade License,         (if any attach copy)         Registered Office Address         Address for Communication         Contract person         Name         Designation				

	Website	
9	PAN No.	
	(attach copy)	
10	CST/VAT No.	
	(attach copy)	
11	G.S.T. registration No.	
	(attach copy)	
12	Annual Turnover	
	(attach audit reports)	
	2023-2024	
	2022-2023 2021-2022	
	2020-2021	
	2019-2020	

(Signature of the Bidder) Printed Name

Designation, Seal

Annexure-2:

Details of the Purchase Orders executed of a	minimum value of Rs 3 crore (Rupees Three	e crore only) in each year, during any 3 of the last 5 years.

SI No	Order Number and date	ltems	Value	Contact Person Name and Designation	Contact Details with E-mail	Date of Completion

Enclose copy of purchase order and corresponding order completion certificate.

(Signature of the Bidder) Printed Name

#### Annexure-3:

#### **Declaration regarding experience**

To, Dean, Division of Chemical Sciences Indian Institute of Science Bangalore-560012

Tender No: IISc/CSB-CR/2024-25 Tender Date: 14.10.2024

Item Description: Supply and Installation of Acoustic Panels, Furniture, Lighting and Audio-Visual Equipment for Classrooms at Chemical Sciences Building, IISc

Sir,

I have carefully gone through the Terms & Conditions contained in the above referred tender. I hereby declare that my company / firm has more than five years of experience in fabricating, supplying and installing modular furniture to Central/State Govt. Departments/ PSUs.

Yours faithfully

(Signature of the Bidder) Printed Name

Designation, Seal Date:

### Annexure-4:

#### Declaration regarding clean track by bidder

To, Dean, Division of Chemical Sciences Indian Institute of Science Bangalore-560012

Tender No: IISc/CSB-CR/2024-25 Tender Date: 14.10.2024

Item Description: Supply and Installation of Acoustic Panels, Furniture, Lighting and Audio-Visual Equipment for Classrooms at Chemical Sciences Building, IISc

Sir,

I have carefully gone through the Terms & Conditions contained in the above referred tender. I hereby declare that my company/firm has not been debarred/blacklisted by any Government/Semi-Government Organizations/Institutions In India or abroad. I further certify that I'm competent officer in my company/firm to make this declaration. Or

I declare the following

No	Country in which the company is debarred /blacklisted/case is pending	Blacklisted/debarred by Government /Semi Government/Org	Reason	Since when and for how long
----	---	---	--------	--------------------------------

Yours faithfully

(Signature of the Bidder) Printed Name

Designation, Seal Date:

#### Annexure – 5:

## Declaration for acceptance of terms and conditions

To, Dean, Division of Chemical Sciences Indian Institute of Science Bangalore-560012

Tender No: IISc/CSB-CR/2024-25 Tender Date: 14.10.2024

Item Description: Supply and Installation of Acoustic Panels, Furniture, Lighting and Audio-Visual Equipment for Classrooms at Chemical Sciences Building, IISc

Sir,

I have carefully gone through the Terms & Conditions mentioned in the above referred RFP document. I declare that all the provisions of this RFP are acceptable to my company. I Further certify that I'm an authorized signatory of my company and am, therefore, competent to make this declaration.

Yours faithfully,

(Signature of the Bidder) Printed Name

Designation, Seal Date:

## **Declaration of Local Content by the Supplier**

Subject: Public Procurement (Preference to Make In India)

References:

Preference to Make in India including counter offering will be as per the Public Procurement (Preference to Make in India), Order 2017 available in the following links https://dipp.gov.in/public-procurements

http://dipp.nic.in/sites/default/files/publicProcurement MakeinIndia 15June2017.pdf http://dipp.nic.in/sites/default/files/Revised-PPP-MII-Order-2017 28052018.pdf https://dipp.gov.in/sites/default/files/PPP-MII%20Order%20dt%2029th%20May%2019 0.pdf https://dipp.gov.in/sites/default/files/PPP%20MII%20Order%20dated%204th%20June%202020.pdf

We hereby declare with reference to above subject and references that

M/s -----(Tick whichever is applicable as below)

"Class-I local supplier" meeting the requirement of minimum local content equal to 50% (fifty percent) or more defined in the above government notification for the goods and services

(or)

"Class-II local Supplier" meeting the requirement of local content 20% to less than 50% (fifty percent) defined in the above government notification for the goods and services (or)

Non Local supplier (If not belonging to Class-I & Class-II)

Please mention the details against the following:

Enquiry no:----- dated. ----- dated. ------ Type of Supplier (Class-I/Class-II) ...... Product:-----Project:.....

Details of location at which local value addition will be made is as follows:

We also understand that the false declarations will be in breach of the code of Integrity under rule 175(1)(i)(h) of the General financial rules for which a bidder or its successors can be debarred for up to two years as per Rule 151(iii) of the General Financial Rules along with such other actions as may be permissible under law.

Authorized Signature M/s-----

(Signature and seal)

Place:....

Date:....

# General Conditions for Acoustic Panels, Furniture, Lighting and Audio-Visual Equipment for Classrooms at Chemical Sciences Building, IISc

1	Based on the GFC drawings, the selected bidder shall submit final shop drawings for approval to the committee before commencing work at site.
2	Scaffolding and other charges shall be borne by the selected bidder. All safety measures relevant to the execution shall be followed by the bidder.
3	Final approval on quantity, finishes etc by committee before execution
4	Modifications due to special site / ground conditions to be brought to the notice of the committee before installation and appropriate solution arrived at with submission of any cost variation due to site condition
5	The Committee may modify (add or delete) scope of work before execution
6	All specifications are as per general specifications
7	The plans and views attached are schematic/indicative and may be modified, following the approval from the committee
8	Prices should be inclusive of transportation, installation and all applicable taxes (percentage of tax to be specified)
9	Price should be inclusive of the mockup cost.
10	Cost to include complete installation, cleaning & house keeping (Pre-packed covering etc., complete) up to handover.
11	Final colour scheme will be decided at the time of final approval / mock up before manufacturing
12	All Fabrics, Laminates, (Powder) coating colours and finishes will be of standard quality and specs
13	Fabric shade & finishes to be strictly as per Committee
14	All powder coated materials, fabric and glass to be prepacked and removed from site after installation
15	Pre-approved template / cutouts for electrical and other provisions to be included in the costing.
16	Key sets on desks with locks if any to be 3 nos each
17	Powder coating to be Epoxy Polyester for Interior Grade.
18	Powder Coat Colours are Standard and NON METALIC and to be approved by the committee
19	Cost should be inclusive of Shop drawing preparation/getting approval from Committee. Mockups/ Handing over documents (3 sets) that includes as built drawings, Manufacturers warranty & Guarantee certificate, user manuals, products catalogues, contact details etc.
20	Vendor to quote for the product matching to the above specifications in the BOQ and if there is any variation, same to be informed to the committee. The decision of the committee is final.

21	Measurements in drawings of furniture and storages are indicative, all measurements are to be verified on site and necessary improvements to be made before execution. The same must be intimated to the committee.
22	The complete work should be carried out as per specification and as described by the committee.
23	Quality Test reports of all relevant line items pertaining to the technical standards mentioned in the specification to be provided.
24	Committee shall ask for any simulation reports for any line item at any stage of the project.
25	Quoted cost shall also include testing and commissioning along with tuning & programming of the system along with training for the end user.
26	Acoustic Works: 1. Job completion certificate for similar works in last 5 years of value not less than 50 Lakhs, from Government, CPWD/PWD/Central or State PSU's 2. Letter from OEM of the acoustical materials supplied stating the genuineness of the materials.
27	<ul> <li>Sound System:</li> <li>1. Job completion certificate for similar works in last 5 years of value not less than 50 Lakhs, from Government, CPWD/PWD/Central or State PSU's.</li> <li>2. Letter from OEM for providing supply and spare support.</li> <li>3. Only authorised System Integrators of the OEM should participate in the tender</li> <li>4. In house capability to test SPL by certified personnel.</li> <li>5. Capability to provide training to personnel handling the system after installation by OEM certified trainers</li> <li>6. OEM trained personnel to be present at site and should supervise the installation</li> </ul>
28	<ul> <li>Projection &amp; Control System:</li> <li>1. Job completion certificate for similar works in last 5 years of value not less than 50 Lakhs</li> <li>Either from Government, CPWD/PWD/Central or State PSU's</li> <li>2. Letter from OEM for providing supply and spare support.</li> <li>3. Only authorised System Integrators of the OEM should participate in the tender</li> <li>4. In house capability to program the control system by certified personnel.</li> <li>5. Capability to provide training to personnel handling the system after installation by OEM certified trainers</li> <li>6. OEM trained personnel to be present at site and should supervise the installation</li> </ul>

# Section 5: Financial Bid

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S.N o.	Description	Qty	Unit	U/Price	Suppl y Rate	Supply Amount	Insta Ilati on Rate	Installati on Amount	GST Supply Rate	GST Supply Amount	GST Installatio n Rate	GST Installati on Amount	Total Amount
		A.	INFRA	STRUC	TURE								
A1. A	COUSTIC WALL PANELLING AND CEILING TREATMENT												
Room	No AG07 (49-seater classroom)												
1	Supply & installation of Slats made of pinewood E1 grade fiberboard, melamine laminated finish, groove perforated slats L16-2 - (2mm grooves @16mm pitch with 27% open area), backlined with Soundtexblack acoustical fleece of 0.27mm thick, surface density 63g/m2,tongue-groove edge for a seamless look, 5-test fire retardant grade, size 128 x2440x16mm, volume density of base board 700Kg/m3, weight (L16), 10.5Kg/m2 installed by using 50x25mm Tubular Aluminium channel infill with 25mm Synth of 1000GSM and finished with 12mm MR plywood, complete with all standard accessories.	88	Sqm										
2	Supply and Installation of subtexNubby,square edge, Glassfibre core fully encapsulated ceiling tile of size 595x595x15mm having volume density 120Kgs/m3, weight 1.8kg/m2 which is suspended by using 0.3mm thick Skelet TrelisT15 metal grid system. Skelet TrelisT15 metal grid system of 600x600mm module includes Skelet WA15W30 wall angle with unequal flanges of 15/19mm, length 3000mm, fixed along the perimeter of walls with the help of nylon sleeves and suitable fasteners at 300mm centers. Then suspend the Skelet MT15W36 MainT with flange width 15mm, height 32mm and length 3600mm, from the soffit slab with help of soffit cleat and wire rod with leveling spring clip at 1200mm centres. Skelet CT15W12 CrossT with flange width 15mm, height 26mm and length 1200mm is interlocked into the pre-cut slots in the Main T15 at 600mm centers in the perpendicular direction to the Main T15. Finally The Skelet CT15W06 CrossT with flange width 15mm, height 26mm and length 600mm are interlocked into the precut slots in the CT15W12 CrossT in direction parallel to the Main T15 to result in 600x600mm module. The Subtex Nubby square edge of size 595x595x15mm shall be placed into the grid size of 600x600mm. Ensure arrow marks behind the tiles are oriented in one direction to achieve uniform shade. The systems to achieve noise reduction coefficient not less than 0.9 NRC. So as to have a neat appearance as directed.	64	Sqm										
3	Supply and Installation of 12/19mm MR plywood with selected laminate of 0.85 or 1mm thick complete with all standard accessories.	10	Sqm										
Room	No AG08/10 (88-seater classroom)			1			•						
1	Supply & installation of Slats made of pinewood E1 grade fiberboard, melamine laminated finish, groove perforated slats L16-2 - (2mm grooves @16mm pitch with 27% open area), backlined with Soundtexblack acoustical fleece of 0.27mm thick, surface density 63g/m2,tongue-groove edge for a seamless look, 5-test fire retardant grade, size 128 x2440x16mm, volume density of base board 700Kg/m3, weight (L16), 10.5Kg/m2 installed by using 50x25mm Tubular Aluminium channel infill with 25mm Synth of 1000GSM and finished with 12mm MR plywood, complete with all standard accessories.	130	Sqm										

2	Supply and Installation of subtexNubby,square edge, Glassfibre core fully encapsulated ceiling tile of size 595x595x15mm having volume density 120Kgs/m3, weight 1.8kg/m2 which is suspended by using 0.3mm thick Skelet TrelisT15 metal grid system. Skelet TrelisT15 metal grid system of 600x600mm module includes Skelet WA15W30 wall angle with unequal flanges of 15/19mm, length 3000mm, fixed along the perimeter of walls with the help of nylon sleeves and suitable fasteners at 300mm centers. Then suspend the Skelet MT15W36 MainT with flange width 15mm, height 32mm and length 3600mm, from the soffit slab with help of soffit cleat and wire rod with leveling spring clip at 1200mm centers. Skelet CT15W12 CrossT with flange width 15mm, height 26mm and length 1200mm is interlocked into the pre-cut slots in the Main T15 at 600mm centers in the perpendicular direction to the Main T15. Finally The Skelet CT15W06 CrossT with flange width 15mm, height 26mm and length 600mm are interlocked into the precut slots in the CT15W12 CrossT in direction parallel to the Main T15 to result in 600x600mm module. The Subtex Nubby square edge of size 595x595x15mm shall be placed into the grid size of 600x600mm. Ensure arrow marks behind the tiles are oriented in one direction to achieve uniform shade. The systems to achieve noise reduction coefficient not less than 0.9 NRC. So as to have a neat appearance as directed. Supply and Installation of 12/19mm MR plywood with selected laminate of 0.85	131	Sqm					
3	or 1mm thick complete with all standard accessories. (Make: Century plywood / Greenplyecotec / Archidply)	10	Sqm					
Room	No AG12 (42-seater classroom)							
1	Supply & installation of Slats made of pinewood E1 grade fiberboard, melamine laminated finish, groove perforated slats L16-2 - (2mm grooves @16mm pitch with 27% open area), backlined with Soundtexblack acoustical fleece of 0.27mm thick, surface density 63g/m2,tongue-groove edge for a seamless look, 5-test fire retardant grade, size 128 x2440x16mm, volume density of base board 700Kg/m3, weight (L16), 10.5Kg/m2 installed by using 50x25mm Tubular Aluminium channel infill with 25mm Synth of 1000GSM and finished with 12mm MR plywood, complete with all standard accessories. (Make: Anutone / Armstrong / Topakustiks)	77	Sqm					
2	Supply and Installation of subtexNubby,square edge, Glassfibre core fully encapsulated ceiling tile of size 595x595x15mm having volume density 120Kgs/m3, weight 1.8kg/m2 which is suspended by using 0.3mm thick Skelet TrelisT15 metal grid system. Skelet TrelisT15 metal grid system of 600x600mm module includes Skelet WA15W30 wall angle with unequal flanges of 15/19mm, length 3000mm, fixed along the perimeter of walls with the help of nylon sleeves and suitable fasteners at 300mm centers. Then suspend the Skelet MT15W36 MainT with flange width 15mm, height 32mm and length 3600mm, from the soffit slab with help of soffit cleat and wire rod with leveling spring clip at 1200mm centres. Skelet CT15W12 CrossT with flange width 15mm, height 26mm and length 1200mm is interlocked into the pre-cut slots in the Main T15 at 600mm centres in the perpendicular direction to the Main T15. Finally The Skelet CT15W06 CrossT with flange width 15mm, height 26mm and length 600mm are interlocked into the precut slots in the CT15W12 CrossT in direction parallel to the Main T15 to result in 600x600mm module. The Subtex Nubby square edge of size 595x595x15mm shall be placed into the grid size of 600x600mm. Ensure arrow marks behind the tiles are oriented in one direction to achieve uniform shade. The systems to achieve noise reduction coefficient not less than 0.9 NRC. So as to have a neat appearance as directed. <b>Make: Anutone / Armstrong / Topakustiks</b>	61	Sqm					

3	Supply and Installation of 12/19mm MR plywood with selected laminate of 0.85 or 1mm thick complete with all standard accessories. Make: Century plywood / Greenplyecotec / Archid ply	10	Sqm						
	Room No A104 (78-seater classroom)								
1	Supply & installation of Slats made of pinewood E1 grade fiberboard, melamine laminated finish, groove perforated slats L16-2 - (2mm grooves @16mm pitch with 27% open area), backlined with Soundtexblack acoustical fleece of 0.27mm thick, surface density 63g/m2,tongue-groove edge for a seamless look, 5-test fire retardant grade, size 128 x2440x16mm, volume density of base board 700Kg/m3, weight (L16), 10.5Kg/m2 installed by using 50x25mm Tubular Aluminium channel infill with 25mm Synth of 1000GSM and finished with 12mm MR plywood, complete with all standard accessories. Make: Anutone / Armstrong / Topakustiks	86	Sqm						
2	Supply and Installation of 12/19mm MR plywood with selected laminate of 0.85 or 1mm thick complete with all standard accessories. Make: Century plywood / Greenplyecotec / Archidply	10	Sqm						
A2. E	LECTRICAL WORK/RE-WORK		I	I					
	Room No AG07 (49-seater classroom)								
1	Supply heavy guage PVC conduit pipe 25 dia 2 mm thick confirming to IS 2509 with suitable size bends, junction boxes,adhesive paste etc,and fixing using inverted wood plug in case of RCC ceiling and RCC walls / stone structure or raw plugs in case of brick walls and cement plastering and damaged portion using heavy gauge saddles at an interval of 700 mm using NF screws.As per the direction of Engineer -in -charge. Make: Precision / VIP / Avonplast	60	Mtr						
2	Supply heavy guage PVC conduit pipe 25 dia 2 mm thick with suitable size bends, junction boxes, adhesive paste etc, throught the conduit where by groove cutting in the wall and fixing by bracing U or J hooks and cement plastering upto the wall surface and run with 18 SWG GI fish wire run throughout the conduit where ever necessary. As per the direction of Engineer -in-charge. <b>Make: Precision / VIP / Avonplast</b>	20	Mtr						
3	Providing PVC fexible Conduit pipe 25 mm dia fixing on surface over inverted tapered wooden plugs or phill plugs or rawl plugs and clamped using heavy gauge saddles of 300 mm using NF screws and on either end of the pipe terminated completely.As per the direction of Engineer-in-charge. Make: Precision / VIP / Avonplast	65	Mtr						
4	<ul> <li>Wiring for lighting / power circuit using one of FRLS PVC insulated 1100V grade, multistand copper wire with low conductor resistance single core in open or concealed system of wiring with specified IS 694:2010.As per the direction 0f Engineer-in-charge.</li> <li>Make: National / Polycab/ RR Cable / Finolex / Havells</li> </ul>								
4.1	1.5 Sqmm	350	Mtr						
4.2	2.5 Sqmm	80	Mtr						
4.3	4.0 Sqmm	30	Mtr						
5	Supplying and drawing flexible multicore cable manufactured with electrolytic grade flexible copper with low conductor confirming to IS 8130-1984 and PVC insulation sheathed suitable for working voltage upto 1100 Volts as per IS-	40	Mtr						

	694:1990. As per the direction of Engineer-in-charge. Make: National / Polycab/ RR Cable / Finolex / Havells							
6	Supplying and flush mounting powder coated / Galvanized metal box suiatable for mounting modular switch plates, the box should be firmly flush mounted after due groove cutting in brick / stone/ C.C wall.As per the direction of Engineer-in-charge. Make: Legrand / ABB / L&T / MK Honeywell							
6.1	1-2 Way	2	Each					
6.2	3 Way	2	Each					
6.3	6 Way	1	Each					
7	Supplying and fixing superior quality modular switch mounting polycarbonate plate with necessary supporting back plate with required number of machine screws,bolt nuts etc, complete on the existing metal / PVC box.As per the direction of Engineer-in-charge. Make: Legrand / ABB / L&T / MK Honeywell							
7.1	1-2 Module	2	Each					
7.2	3 Module	2	Each					
7.3	6 Module	9	Each					
7.4	12 Module	1	Each					
8	Supplying and fixing of modular switch & connected accessories on existing modular switch plate as per IS 3854 and IS 1293.As per the direction of Engineer-in-charge. Make: Legrand / ABB / L&T / MK Honeywell							
8.1	6 A one way switch	28	Each					
8.2	6 A Three-way socket	14	Each					
8.3	Stepped fan regulator two module	3	Each					
8.4	16 A one way switch	3	Each					
8.5	6/16 A universal socket	3	Each					
8.6	RJ45/ I.O Output Cat-6	2	Each					
8.7	Supply and installation of Modular blank plates	4	Each					
8.8	Supply and drawing UTP-CAT 6E LAN cable as per the direction of Engineer - in -charge. Make: D-link / Belden	20	Mtr					
9	Supply and installation of recess mounting nonintegrated type LED down lights.As per the direction of Engineer-in-charge. Make: Philips / Crompton / Wipro / Havells							
9.1	15-18 W	8	Each					

9,.2	10-12 W	8	Each					
10	Refixing a ceiling fan of all capacities and all type to the existing S hook with fan regulator. As per the direction of Engineer-in-charge.	3	Each					
11	Supply and installation of Extra length of Fan rods. As per the direction of Engineer-in-charge.	3	Each					
12	Supply and installation of Strip light with Profile casing as per directions of Engineer-in -charge. Make: Philips / Crompton / Wipro / Havells	5	Mtr					
13	Supply and installation of Strip lights as per the direction of Engineer -in-charge. Make: Philips / Crompton / Wipro / Havells	5	Mtr					
14	Supply and installation of LED Driver as per the direction of Engineer-in-charge. Make: Philips / Crompton / Wipro / Havells	1	Each					
15	Miscellaneous works: Removing existing all tube lights, Fans, Fan rods, modular switches, sockets and plates etc. As direction of Engineer-in-charge.	1	Job					
	Room No AG08/10 (88-seater classroom)							
1	Supply heavy guage PVC conduit pipe 25 dia 2 mm thick confirming to IS 2509 with suitable size bends, junction boxes, adhesive paste etc, and fixing using inverted wood plug in case of RCC ceiling and RCC walls / stone structure or raw plugs in case of brick walls and cement plastering and damaged portion using heavy gauge saddles at an interval of 700 mm using NF screws. As per the direction of Engineer -in -charge. Make: Precision / VIP / Avonplast	180	Mtr					
2	Supply heavy guage PVC conduit pipe 25 dia 2 mm thick with suitable size bends, junction boxes, adhesive paste etc,through the conduit where by groove cutting in the wall and fixing by bracing U or J hooks and cement plastering up to the wall surface and run with 18 SWG GI fish wire run throughout the conduit where ever necessary. As per the direction of Engineer -in-charge. Make: Precision / VIP / Avonplast	120	Mtr					
3	Providing PVC fexible Conduit pipe 25 mm dia fixing on surface over inverted tapered wooden plugs or phill plugs or rawl plugs and clamped using heavy gauge saddles of 300 mm using NF screws and on either end of the pipe terminated completely. As per the direction of Engineer-in-charge. Make: Precision / VIP / Avonplast	120	Mtr					
4	<ul> <li>Wiring for lighting / power circuit using one of FRLS PVC insulated 1100V grade, multistrand copper wire with low conductor resistance single core in open or concealed system of wiring with specified IS 694:2010.As per the direction 0f Engineer-in-charge.</li> <li>Make: National / Polycab/ RR Cable / Finolex / Havells</li> </ul>							
4.1	1.5 Sqmm	900	Mtr					
4.2	2.5 Sqmm	600	Mtr					
4.3	4.0 Sqmm	140	Mtr					
5	Supplying and drawing flexible multicore cable manufactured with electrolytic grade flexible copper with low conductor confirming to IS 8130-1984 and PVC insulation sheathed suitable for working voltage upto 1100 Volts as per IS-694:1990.As per the direction of Engineer-in-charge.	100	Mtr					

	Make: National / Polycab/ RR Cable / Finolex / Havells								
6	Supplying and flush mounting powder coated / Galvanized metal box suitable for mounting modular switch plates, the box should be firmly flush mounted after due groove cutting in brick / stone/ C.C wall. As per the direction of Engineer-in-charge. Make: Legrand / ABB / L&T / MK Honeywell								
6.1	1-2 Way	2	Each						
6.2	3 Way	2	Each						
6.3	6 Way	1	Each						
7	Supplying and fixing superior quality modular switch mounting polycarbonate plate with necessary supporting back plate with required number of machine screws, bolt nuts etc, complete on the existing metal / PVC box. As per the direction of Engineer-in-charge. Make: Legrand / ABB / L&T / MK Honeywell								
7.1	1-2 Module	2	Each						
7.2	3 Module	2	Each						
7.3	6 Module	18	Each						
7.4	12 Module	4	Each						
8	Supplying and fixing of modular switch & connected accessories on existing modular switch plate as per IS 3854 and IS 1293. As per the direction of Engineer-in-charge. Make: Legrand / ABB / L&T / MK Honeywell								
8.1	6 A one way switch	60	Each						
8.2	6 A Three way socket	28	Each						
8.3	Stepped fan regulator two module	8	Each						
8.4	16 A one way switch	6	Each						
8.5	6/16 A universal socket	6	Each						
8.6	RJ45/ I.O Output Cat-6	4	Each						
8.7	Supply and installation of Modular blank plates	10	Each						

8.8	Supply and drawing UTP-CAT 6E LAN cable as per the direction of Engineer - in -charge. Make: D-link / Belden	60	Mtr					
9	Supply and installation of recess mounting nonintegrated type LED down lights. As per the direction of Engineer-in-charge. Make: Philips / Crompton / Wipro / Havells							
9.1	15-18 W	16	Each					
9,.2	10-12 W	16	Each					
10	Refixing a ceiling fan of all capacities and all type to the existing S hook with fan regulator. As per the direction of Engineer-in-charge.	8	Each					
11	Supply and installation of Extra length of Fan rods. As per the direction of Engineer-in-charge.	8	Each					
12	Supply and installation of Strip light with Profile casing as per directions of Engineer-in -charge Make: Philips / Crompton / Wipro / Havells.	10	Mtr					
13	Supply and installation of Strip lights as per the direction of Engineer -in-charge. Make: Philips / Crompton / Wipro / Havells	10	Mtr					
14	Supply and installation of LED Driver as per the direction of Engineer-in-charge. Make: Philips / Crompton / Wipro / Havells	2	Each					
15	Miscellaneous works: Removing existing all tube lights, Fans, Fanrods ,modular switches, sockets and plates etc.As direction of Engineer-in-charge.	1	Job					
Room	No AG12 (42-seater classroom)							
1	Supply heavy guage PVC conduit pipe 25 dia 2 mm thick confirming to IS 2509 with suitable size bends, junction boxes, adhesive paste etc,and fixing using inverted wood plug in case of RCC ceiling and RCC walls / stone structure or raw plugs in case of brick walls and cement plastering and damaged portion using heavy gauge saddles at an interval of 700 mm using NF screws. As per the direction of Engineer -in -charge. Make: Precision / VIP / Avonplast	80	Mtr					
2	Supply heavy guage PVC conduit pipe 25 dia 2 mm thick with suitable size bends, junction boxes, adhesive paste etc, throught the conduit where by groove cutting in the wall and fixing by bracing U or J hooks and cement plastering upto the wall surface and run with 18 SWG GI fish wire run throughout the conduit where ever necessary. As per the direction of Engineer -in-charge. <b>Make: Precision / VIP / Avonplast</b>	30	Mtr					
3	Providing PVC fexible Conduit pipe 25 mm dia fixing on surface over inverted tapered wooden plugs or phill plugs or rawl plugs and clamped using heavy gauge saddles of 300 mm using NF screws and on either end of the pipe terminated completely.As per the direction of Engineer-in-charge. Make: Precision / VIP / Avonplast	100	Mtr					
4	<ul> <li>Wiring for lighting / power circuit using one of FRLS PVC insulated 1100V</li> <li>grade, multistrand copper wire with low conductor resistance single core in open</li> <li>or concealed system of wiring with specified IS 694:2010.As per the direction 0f</li> <li>Engineer-in-charge.</li> <li>Make: National / Polycab/ RR Cable / Finolex / Havells</li> </ul>							

1			i.	i.	1		i.	1	i.	
4.1	1.5 mm2	350	Mtr							
4.2	2.5 mm2	100	Mtr							
4.3	4.0 mm2	40	Mtr							
5	6.0 mm2	40	Mtr							
6	Supplying and drawing flexible multicore cable manufactured with electrolytic grade flexible copper with low conductor confirming to IS 8130-1984 and PVC insulation sheathed suitable for working voltage upto 1100 Volts as per IS-694:1990. As per the direction of Engineer-in-charge. National / Polycab/ RR Cable / Finolex / Havells	125	Mtr							
7	Supplying and flush mounting powder coated / Galvanized metal box suitable for mounting modular switch plates, the box should be firmly flush mounted after due groove cutting in brick / stone/ C.C wall. As per the direction of Engineer-in-charge. Make: Legrand / ABB / L&T / MK Honeywell									
7.1	1-2 Way	2	Each							
7.2	3 Way	2	Each							
7.3	6 Way	1	Each							
8	Supplying and fixing superior quality modular switch mounting polycarbonate plate with necessary supporting back plate with required number of machine screws, bolt nuts etc, complete on the existing metal / PVC boxAs per the direction of Engineer-in-charge. Make: Legrand / ABB / L&T / MK Honeywell									
8.1	1-2 Module	2	Each							
8.2	3 Module	2	Each							
8.3	6 Module	9	Each							
8.4	12 Module	1	Each							
9	Supplying and fixing of modular switch & connected accessories on existing modular switch plate as per IS 3854 and IS 1293. As per the direction of Engineer-in-charge. Make: Legrand / ABB / L&T / MK Honeywell									
9.1	6 A one way switch	28	Each							
9.2	6 A Three-way socket	14	Each							
9.3	Stepped fan regulator two module	3	Each							

9.4	16 A one way switch	3	Each					
9.5	6/16 A universal socket	3	Each					
9.6	RJ45/ I.O Output Cat-6	2	Each					
10	Supply and installation of Modular blank plates	4	Each					
11	Supply and drawing UTP-CAT 6E LAN cable as per the direction of Engineer - in -charge. Make: D-link / Belden	40	Mtr					
12	Supply and installation of recess mounting nonintegrated type LED down lights. As per the direction of Engineer-in-charge. Make: Philips / Crompton / Wipro / Havells							
12.1	15-18 W	8	Each					
12.2	10-12 W	8	Each					
13	Supply and Fixing of ceiling fan of all capacities and including suitable hooks with fan. As per the direction of Engineer-in-charge. Make: Havells / Orient / Usha / Bajaj	3	Each					
14	Supply and installation of Extra length of Fan rods. As per the direction of Engineer-in-charge.	3	Each					
15	Supply and installation of Strip light with Profile casing as per directions of Engineer-in -charge. Make: Philips / Crompton / Wipro / Havells	5	Mtr					
16	Supply and installation of Strip lights as per the direction of Engineer -in-charge. Make: Philips / Crompton / Wipro / Havells	5	Mtr					
17	Supply and installation of LED Driver as per the direction of Engineer-in-charge. Make: Philips / Crompton / Wipro / Havells	1	Each					
18	supplying and fixing regular MCB Distribution boards on wall flush mounting using required clamps,bolt,nutsetc with provision for fixing suitable type capacity MCBs single phase / 3 phase / double door with powder coated painting made out of 14 SWG MS enclosure as per direction of Engineer-in-charge. Make: Legrand / Siemens / ABB/ C&S							
18.1	16 W SPN MCB DB (Double door)	1	Each					
19	Supply and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and C type curve, breaking capacity 10 K as per the direction of Engineer -in-charge. Make: Legrand / Siemens / ABB/ C&S							
19.1	6-32 A SP MCB	10	Each					
19.2	40 A DP MCB	1	Each					
20	Miscellaneous works: Removing existing all tube lights, Fans, Fan rods , modular switches, sockets and plates etc. As direction of Engineer-in-charge.	1	Job					
Room	No A104 (78 -seater classroom)							

1	Supply heavy guage PVC conduit pipe 25 dia 2 mm thick confirming to IS 2509 with suitable size bends, junction boxes,adhesive paste etc,and fixing using inverted wood plug in case of RCC ceiling and RCC walls / stone structure or raw plugs in case of brick walls and cement plastering and damaged portion using heavy gauge saddles at an interval of 700 mm using NF screws.As per the direction of Engineer -in -charge. Make: Precision / VIP / Avonplast	60.00	Mtr							
2	Supply heavy guage PVC conduit pipe 25 dia 2 mm thick with suitable size bends, junction boxes, adhesive paste etc, throught the conduit where by groove cutting in the wall and fixing by bracing U or J hooks and cement plastering upto the wall surface and run with 18 SWG GI fish wire run throughout the conduit where ever necessary. As per the direction of Engineer -in-charge. <b>Make: Precision / VIP / Avonplast</b>	100.00	Mtr							
3	Providing PVC fexible Conduit pipe 25 mm dia fixing on surface over inverted tapered wooden plugs or phill plugs or rawl plugs and clamped using heavy gauge saddles of 300 mm using NF screws and on either end of the pipe terminated completely. As per the direction of Engineer-in-charge. <b>Make: Precision / VIP / Avonplast</b>	50.00	Mtr							
4	<ul> <li>Wiring for lighting / power circuit using one of FRLS PVC insulated 1100V grade, multistand copper wire with low conductor resistance single core in open or concealed system of wiring with specified IS 694:2010.As per the direction 0f Engineer-in-charge.</li> <li>Make: National / Polycab/ RR Cable / Finolex / Havells</li> </ul>									
4.1	1.5 mm2	Mtr	240.00							
4.2	2.5 mm2	Mtr	480.00							
5	Supply and installation of Strip light with Profile casing as per directions of Engineer-in -charge .Make: Philips/ Crompton/ Wipro/ Havells	Mtr	10							
6	Supply and installation of Strip lights as per the direction of Engineer -in-charge. Make: Philips / Crompton / Wipro / Havells	Mtr	10							
7	Supply and installation of LED Driver as per the direction of Engineer-in-charge. Make: Philips / Crompton / Wipro / Havells	Each	2							
<mark>A3. C</mark>	IVIL WORK			1	1	1	1	1	 1	
Room	No AG07 (49-seater classroom)									
1	Demolishing tile / granite work in floors and roofs laid in cement mortar including stacking of serviceable material and disposal of unserviceable material to the appropriate disposal area as per direction of Engineer -in -charge.	2	Sqm							
2	Cutting and removing of existing Aluminiumwindows, including cleaning the debris from spot etc., complete as per the instruction of Engineer-in-charge	2	Each							
3	Providing Brick work with common burnt clay machine moulded perforated bricks of class designation 5.0 conforming to IS: 2222 in superstructure above the plinth level in cement mortar 1:6 (1 cement: 6 sand) with non modular bricks .Including cost of all materials,louber,scaffolding and usage charges of	1.3	m3							

	machinery and other incidental charges complete as per the direction of Engineer -in-charge.							
4	Providing 18 mm cement plaster in two coats under layer 12 mm thick cement plaster with cement mortar 1:5 (1 cement:5 coarse sand) finished with a top layer 6 mm thick cement plaster with cement mortar 1:3 (1 cement : 3 coarse sand) finished rough with sponge to brick masonry, including rounding off corners where ever required smooth rendering, providing and removing scaffolding,including cost of materials,labour,curing complete as per specifications and as per directions of Engineer -in-charge, <b>Make: OPC 43 grade cement</b>	15	Sqm					
5	Applying one coat of water thinnable cement primer of approved brand and manufacturer on wall surface,waterthinnable cement primer to give an even shade after thoroughly brooming the surface to remove all dirt,dust ,morter drops and foreign matter ,including preparing the surface even and sand paper smooth, cost of materials,labour complete as per specifications and as per directions Engineer-in-charge.	15	Sqm					
6	Providing and applying white cement-based putty of average thickness 1 mmof approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete as per specifications and as per directions of Engineer-in-charge. Make: Birla/ASIAN	7.5	Sqm					
7	Providing and applying two coats of High Albedo paint having minimum solar refective index 108 (with solar reflectance & thermal remittance tested as per ASTM) C1549 ans ASTM C1371 respectively) VOC less than 10 cc / g.The coating thickness and the methodology of application shall strictly as per manufacturer specifications and as approved by Engineer -in-charge,Surface preparation includes cleaning with metal wire brush to remove the all dust , fungus etc,washing with water all complete ,The contactor shall give grarantee for the performance of SRI and also the durability of coating all complete as per direction of Engineer-in-charge. <b>Make: ASIAN</b>	7.5	Sqm					
8	Providing & fixing of sliding windows made out of multi chambered UPVC ( Matching to RAL-9016) 2 glass shutter and one mesh SS shutter with top fixed combo, Glass: Saint Gobain Laminate-12.52 mm (5 mm clear Toughened + 1.52 PVB Layer + 6 mm clear Toughened).SWM outer frame 108x49mm,SWM Sash: 60x38mm,FW outer frame :60x60mm ,Gasket with all round insulation tapes,as per specifications and as per directions of Engineer-in-charge. Make: V-Tech/Fenesta/VEKA	70	Sqft					
9	Painting with Synthetic enamel paint of approved brand and manufacture to give an even shade ,two coats on new work after thoroughly brooming the surface to remove all dirt, dust ,mortar drops and foreign matter including preparing the surface even sand papersmooth, cost of all materials ,labour complete as per specifications and as per directions of Engineer -in-charge	7.00	mtr					
10	Supply and installation of sun light control film as per the direction of Engineer - in-charge.	15.00	Sqf					
11	Providing and fixing Vision Panel existing door, using 5 mm thick plane glass , including making cutouts in the flush door and fixing in position with teakwood beading alround, including cost of all materials, and as directed by the Engineer- in-charge.	1.00	Each					

1	Cutting and removing of existing Aluminiumwindows, including cleaning the debris from spot etc., complete as per the instruction of Engineer-in-charge	4	Each					
2	Cutting and removing of existing window railing, including cleaning the debris from spot etc., complete as per the instruction of Engineer-in-charge	1	Each					
3	Demolishing brick / concrete work manually / by mechanical means including stacking of serviceable material and disposal of unserviceable material to the appropriate disposal area as per direction of Engineer -in -charge.	19	Cum					
4	Demolishing tile work in floors and roofs laid in cement mortar including stacking of serviceable material and disposal of unserviceable material to the appropriate disposal area as per direction of Engineer -in -charge.	140	Sqm					
5	Providing and constructing load bearing wall with solid concrete blocks of size 400x200x200mm having block density more than 1800kg/m3 and minimum compressive strength of 4.0 N/mm2 conforming to IS:2185 (Part-1)-2005 and constructed with CM 1:4 as per IS2572:2005 including cost of all materials, labour,scaffolding and curing usage charges of machinery etc complete as per specifications as directed by the Engineer-in-charge.	9	Sqm					
6	Providing and laying in position cement concrete for levelling course for all works in foundation. The granite /trap/basalt crushed graded coarse aggregates and fine aggregates as per relevent IS codes machine mixed, laid in layers not exceeding 150 mm thickness ,well compacted using plate vibrators, including all lead &lifts, cost of all materials of quality labours, usage charges of machinery, curing, and all other appurtenances required to complete the work as per technical specifications and as per the direction of Engineer-in-charge.							
6.1	Mix 1:3:6 using 20 mm nominal size graded crushed coarse aggregates	18	Cum					
7	Providing and laying cement concrete flooring 40 mm thick with 20 mm nominal size stone aggregate using 1:2:4 (1 Cement:2 coarse sand:4 graded stone aggregate)finished with a floating coat of near cement, including cement slurry complete as per direction of Engineer -in-charge	85	Sqm					
8	Providing and laying polished Granite stone flooring in required design and patterns in linear as well as curvelinear portion of the building all the complete as per the drawing with 18 mm thick stone slab over 20mm Avarage thick base of cement morter 1:4 (1 cement: 4 coarse sand) laid and jointed with cement slarry and pointing with white cement slurry admixed with pigment of matching shade including rubbing ,curing and polishing etc all complete as specified and as as directed by the Engineer-in-charge,	15	Sqm					
9	Supply and installation Granite Skirting as per the direction of Engineer-in-charge.	12	Mtr					
10	Providing Brick work with common burnt clay machine moulded perforated bricks of class designation 5.0 conforming to IS: 2222 in superstructure above the plinth level in cement mortar 1:6 (1 cement: 6 sand) with non-modular bricks Including cost of all materials,louber,scaffolding and usage charges of machinery and other incidental charges complete as per the direction of Engineer -in-charge.	1.3	Cum					
11	Providing 18 mm cement plaster in two coats under layer 12 mm thick cement plaster with cement mortar 1:5 (1 cement:5 coarse sand) finished with a top layer 6 mm thick cement plaster with cement mortar 1:3 (1 cement : 3 coarse sand) finished rough with sponge to brick masonry, including rounding off corners where ever required smooth rendering, providing and removing scaffolding,including cost of materials,labour,curing complete as per specifications and as per directions of Engineer -in-charge, <b>Make: OPC 43 grade cement</b>	16	Sqm					

12	Applying one coat of water thinnable cement primer of approved brand and manufacturer on wall surface, waterthinnable cement primer to give an even shade after thoroughly brooming the surface to remove all dirt, dust, morter drops and foreign matter , including preparing the surface even and sand papersmooth, cost of materials, labour complete as per specifications and as per directions Engineer-in-charge.	16	Sqm					
13	Providing and applying white cement based putty of average thickness 1 mm ,of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete as per specifications and as per directions of Engineer-in-charge. Make; Birla/ASIAN	16	Sqm					
14	Providing and applying two coats of High Albedo paint having minimum solar reflective index 108 (with solar reflectance & thermal remittance tested as per ASTM) C1549 ans ASTM C1371 respectively) VOC less than 10 cc / g.The coating thickness and the methodology of application shall strictly as per manufacturer specifications and as approved by Engineer -in-charge,Surface preparation includes cleaning with metal wire brush to remove the all dust , fungus etc,washing with water all complete ,The contactor shall give guarantee for the performance of SRI and also the durability of coating all complete as per direction of Engineer-in-charge. <b>Make: ASIAN</b>	7.5	Sqm					
15	Distempering with oil bound washable distemper of approved brand and manufacturer to give an even shade New work (two coats) over and including water thinnable priming coat with cement primer after thoroughly brooming the surface to remove all dirt, dust, mortar drops and foreign matter including preparing the surface even and sand paper smooth coat of materials, labour complete as per specification and as per direction of Engineer-in-charge.	5	Sqm					
16	Providing & fixing of sliding windows made out of multi chambered UPVC ( Matching to RAL-9016) 2 glass shutter and one mesh SS shutter with top fixed combo, Glass: Saint Gobain Laminate-12.52 mm (5 mm clear Toughened + 1.52 PVB Layer + 6 mm clear Toughened).SWM outer frame 108x49mm,SWM Sash: 60x38mm,FW outer frame :60x60mm,Gaskewithall round insulation tapes,as per specifications and as per directions of Engineer-in-charge. Make: V-Tech/Fenesta/VEKA	105	Sqft					
17	Removing and refixing of existing door with alteration as per direction of Engineer-in-charge.	1	Each					
18	Providing and laying Vitrified tiles with thickness 9-10 mm in floor with different sizes with water absorption less than 0.08% and conforming to IS:15622 of approved brand &manufacturer, in all colours and shade, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS:15477, in average 6 mm thickness, including grouting joints . Size of Tile 600 x 600 mm. Make: Johnson/ Somany/Naveen	140	Sqm					
19	Providing and laying for tiles skirting as per the direction of Engineer-in-charge	30	Mtr					
20	All debris to be removed from site and as per the direction of Engineer-in-charge	1	Job					
21	Painting with Synthetic enamal paint of approved brand and manufacture to give an even shade ,two coats on new work after throughly brooming the surface to remove all dirt,dust ,mortar drops and foreign matter including preparing the surface even sand papersmooth,cost of all materials ,labour complete as per specifications and as per directions of Engineer -in-charge	14.00	mtr					

22	Supply and installation of sun light control film as per the direction of Engineer - in-charge.	30.00	Sqf					
Room	No AG12 (42-seater classroom)							
1	Cutting and removing of existing teak wood window and glass etc, and alternation to be made as per the requirement, as per direction of Engineer-in-charge.	1.5	Sqm					
2	Demolishing tile /granite work in floors and roofs laid in cement mortar including stacking of serviceable meterial and disposal of unserviceable material to the appropriate disposal area as per direction of Engineer -in -charge.	9	Sqm					
3	Earth work excavation by manual means for foundation of building and such similar works in all kinds of soils, as per the technical specification, including cost of labour,tools and other appurtenances require to complete the work as per direction of Engineer-in-charge.	2	Cum					
4	Providing and laying in position cement concrete for levelling course for all works in foundation. The granite /trap/basalt crushd graded coarse aggregates and fine aggregates as per relevent IS codes machine mixed, laid in layers not exceeding 150 mm thickness ,well compacted using plate vibrators, including all lead &lifts, cost of all materials of quality labours, usage charges of machinery, curing, and all other apputenances required to complete the work as per technical specifications and as per the direction of Engineer-in-charge.							
5	Mix 1:3:6 using 20 mm nominal size graded crushed coarse aggregates	5	Cum					
6	M25 design mix using 20 mm nominal size graded crushed coarse aggregates	6	Cum					
7	Providing and laying cement concrete flooring 40 mm thick with 20 mm nominal size stone aggregate using 1:2:4 (1 Cement:2 coarse sand:4 graded stone aggregate)finished with a floating coat of near cement, including cement slurry complete as per direction of Engineer -in-charge	10	Sqm					
8	providing and fixing temparary form work for all RCC membars using 20 mm thick flay wood and supporting with caserena poles including leveling fixing in position application of oil to suit site condition etc complete as per direction of Engineer-in-charge,	65	Sqm					
9	Supplying fitting and placing TMT EE 550/550D steel reinforcement including cost of all materials, machinery,labour,cleaning,straightening,cutting,bending,hooking,laping/welding joints,tying with binding wire / soft aneeealed steel wire and other ancilary operations complete as per direction of Engineer-in-charge. Make: TMTEE 550/ 550D	1.5	Ton					
10	Providing and constructing load bearing wall with solid concrete blocks of size 400x200x200mm having block density more than 1800kg/m3 and minimum compressive strength of 4.0 N/mm2 conforming to IS:2185 (Part-1)-2005 and constructed with CM 1:4 as per IS2572:2005 including cost of all materials, labour,scaffolding and curing usage charges of machinery etc complete as per specifications as directed by the Engineer-in-charge.	90	Sqm					
11	Providing 18 mm cement plaster in two coats under layer 12 mm thick cement plaster with cement mortar 1:5 (1 cement:5 coarse sand) finished with a top layer 6 mm thick cement plaster with cement mortar 1:3 (1 cement : 3 coarse sand) finished rough with sponge to brick masonry, including rounding off corners where ever required smooth rendering, providing and removing scaffolding,including cost of materials,labour,curing complete as per specifications and as per directions of Engineer -in-charge,	180	Sqm					

	Make: OPC 43 Grade Cement						1	
12	Applying one coat of water thinnable cement primer of approved brand and manufacturer on wall surface,waterthinnable cement primer to give an even shade after throughly brooming the surface to remove all dirt,dust ,morter drops and foreign matter ,including preparing the surface even and sand papersmooth,cost of materials,labour complete as per specifications and as per directions Engineer-in-charge.	170	Sqm					
13	Providing and applying white cement based putty of average thickness 1 mm ,of approved brand and manufacturer,over the plastered wall surface to prepare the surface even and smooth complete as per specifications and as per directions of Engineer-in-charge. Make: Birla/ASIAN	170	Sqm					
14	Distempering with oil bound washable distemper of approved brand and manufacturer to give an even shade New work (two coats) over and including water thinnable priming coat with cement primer after thoroughly brooming the surface to remove all dirt, dust, mortar drops and foreign matter including preparing the surface even and sand paper smooth coat of materials, labour complete as per specification and as per direction of Engineer-in-charge.	170	Sqm					
15	Providing and laying polished Granite stone flooring in required design and patterns in linear as well as curvelinear portion of the building all the complete as per the drawing with 18 mm thick stone slab over 20mm Avarage thick base of cement morter 1:4 (1 cement: 4 coarse sand) laid and jointed with cement slarry and pointing with white cement slarry admixed with pigment of maching shade including rubbing ,curing and polishing etc all complete as specified and as as directed by the Engineer-in-charge,	32	Sqm					
16	Supply and installation Granite Skriting as per the direction of Engineer-in- charge.	8	Mtr					
17	Providing and fixing teek wood door using 75 mm x 150 mm size teak wood section, 40 mm thick both side teak flush shutters with vision panel, including fixing of MS Hold fasts in concrete ,anti terminate paint to the contact surfaces with machinary ,Teek wood polish, fixing of all necessary fixings and fixtures etc, as per the direction of Engineer -in-charge. For door size 3.6 feet X 8 feet <b>Make: Teak Wood</b>	1	Set					
18	Providing & fixing of sliding windows made out of multi chambered UPVC ( Matching to RAL-9016) 2 glass shutter and one mesh SS shutter with top fixed combo, Glass: Saint Gobain Laminate-12.52 mm (5 mm clear Toughened + 1.52 PVB Layer + 6 mm clear Toughened).SWM outer frame 108x49mm,SWM Sash: 60x38mm,FW outer frame :60x60mm ,Gaskewithall round insulation tapes,as per specifications and as per directions of Engineer-in-charge. Make: V-Tech/Fenesta/VEKA	20	Sqft					
19	All debris to be removed from site and as per the direction of Engineer-in-charge	1	Job					
Room	No AG04 (49-seater classroom)							I
1	Cutting and removing of existing Aluminiumwindows, including cleaning the deberies from spot etc., complete as per the instruction of Engineer-in-charge	2	Each					
2	Providing & fixing of sliding windows made out of multi chambered UPVC ( Matching to RAL-9016) 2 glass shutter and one mesh SS shutter with top fixed combo, Glass: Saint Gobain Laminate-12.52 mm (5 mm clear Toughened + 1.52 PVB Layer + 6 mm clear Toughened).SWM outer frame 108x49mm,SWM	70	Sqft					

1	Sector (0-20mm FW) actor from a (0-(0-mm, Cashet with all around involution		1	1	1	1	1	1	1	I	1	1	
	Sash: 60x38mm,FW outer frame :60x60mm ,Gasket with all round insulation tapes,as per specifications and as per directions of Engineer-in-charge.												
3	Painting with Synthetic enamal paint of approved brand and manufacture to give an even shade ,two coats on new work after throughly brooming the surface to remove all dirt,dust ,mortar drops and foreign matter including preparing the surface even sand papersmooth,cost of all materials ,labour complete as per specifications and as per directions of Engineer -in-charge <b>Make: V-Tech/Fenesta/VEKA</b>	7.00	mtr										
Room	No AG09/11 (110-seater classroom)												
1	Cutting and removing of existing Aluminiumwindows, including cleaning the debris from spot etc., complete as per the instruction of Engineer-in-charge	4	Each										
2	Providing & fixing of sliding windows made out of multi chambered UPVC ( Matching to RAL-9016) 2 glass shutter and one mesh SS shutter with top fixed combo, Glass: Saint Gobain Laminate-12.52 mm ( 5 mm clear Toughened + 1.52 PVB Layer + 6 mm clear Toughened).SWM outer frame 108x49mm,SWM Sash: 60x38mm,FW outer frame :60x60mm ,Gasket with all round insulation tapes,as per specifications and as per directions of Engineer-in-charge. Make: V-Tech/Fenesta/VEKA	140	Sqft										
3	Painting with Synthetic enamal paint of approved brand and manufacture to give an even shade ,two coats on new work after throughly brooming the surface to remove all dirt,dust ,mortar drops and foreign matter including preparing the surface even sand papersmooth,cost of all materials ,labour complete as per specifications and as per directions of Engineer -in-charge	14.00	mtr										
4	Supply and installation of sun light control film as per the direction of Engineer -in-charge.	30.00	Sqf										
<mark>A4. W</mark>	RITING BOARDS and ROLLER BLINDS												
Room	No AG07 (49-seater classroom)												
1	Supply and Installation of writing board Size:3.8x1.2 Mtrs of Anti Rust Porcelain-based Enameled Steel Plates Ceramic Green Board complete as required. Make: Reputed	1	Nos										
2	Supply and Installation of roller blind on existing window with all fittings and fixing arrangement as per direction of engineer-in-charge. Make: Reputed	5.6	Sqm										
	Room No AG08/10 (88-seater classroom)												
1	Supply and Installation of writing board Size:7x1.2 Mtrs of Anti Rust Porcelain- based Enameled Steel Plates Ceramic Green Board complete as required. Make: Reputed	1	Nos										
2	Supply and Installation of roller blind on existing window with all fittings and fixing arrangement as per direction of engineer-in-charge. Make: Reputed	8.4	Sqm										
	Room No AG12 (42-seater classroom)												
1	Supply and Installation of writing board Size:3.8x1.2 Mtrs of Anti Rust Porcelain-based Enameled Steel Plates Ceramic Green Board complete as required. Make: Reputed	1	Nos										

2	Supply and Installation of roller blind on existing window with all fittings and fixing arrangement as per direction of engineer-in-charge. Make: Reputed	2.8	Sqm						
	Room No A104 (78-seater classroom) (only Writing Board)								
1	Supply and Installation of writing board Size:7x1.2 Mtrs of Anti Rust Porcelain- based Enameled Steel Ceramic White Board complete as required. Make: Reputed	1	Nos						
			<mark>B. FU</mark>	RNITUR	E				
Room	No AG07 (49-seater classroom)								
1	Supply and Installation of Classroom furniture, complete with all standard accessories. Mid Row Size - 1100L x 900D x 815H (2 seater ) Specifications : Table top made up of 25mm thick prelaminated particle board with matching 2mm edge lipping.10mm thk ply moulded BSL back rest / modesty with clear melamine finished edges & Size of each back rest540L x 355Ht.Two seater will have two back rests and three seater will have three.Such back rests are connected each other using high quality ABS moulded connectors to get proper alignment. Fixed seat: It's a 14mm thk high quality moulded ply with laminate finish on top of size 450mm L x 380mm D. The moulded ply seat is mounted on a robust 4mm thk MS – press formed bracket. The seat & bracket are designed to take care of adequate load. Horrizantal Beams: Beams are extruded aluminium of 6063 grade alum alloy &comes with anodised finish. Top &Bottom beam with a rounded square section provided with adequate internal ribbing to take care of cantilever load. Feet: It is made out of 16g (1.60mm thk) CRCA sheet with powder coating finish of 40-60 microns. Each desk will have 1number bag hook. <b>Make: Featherlite / Monarch / Wipro (Attach images with the technical bid)</b>	12	Sets						
1.1	Size - 1100L x 600D x 815H (2 seater) Specifications : Table top made up of 25mm thick prelaminated particle board with matching 2mm edge lipping.10mm thk ply moulded BSL back rest / modesty with clear melamine finished edges & Size of each back rest540L x 355Ht.Two seater will have two back rests and three seater will have three.Such back rests are connectedeach other using high quality ABS moulded connectors to get proper alignment. Fixed seat: It's a 14mm thk high quality moulded ply with laminate finish on top of size 450mm L x 380mm D. Themoulded ply seat is mounted on a robust 4mm thk MS – press formed bracket. The seat & bracket are designed totake care of adequate load. Horrizantal Beams: Beams are extruded aluminium of 6063 grade alum alloy & comes with anodised finish. Top & Bottom beam with a rounded square section provided with adequate internal ribbing to take care of cantilever load. Feet: It is made out of 16g (1.60mm thk) CRCA sheet with powder coating finish of 40-60 microns.	2	Sets						

	Each desk will have 1number bag hook" Make: Featherlite / Monarch / Wipro (Attach images with the technical bid)							
1.2	Mid Row Size - 1650L x 900D x 815H (3 Seater ) Specifications : Table top made up of 25mm thick prelaminated particle board with matching 2mm edge lipping.10mm thk ply moulded BSL back rest / modesty with clear melamine finished edges & Size of each back rest540L x 355Ht.Two seater will have two back rests and three seater will have three.Such back rests are connectedeach other using high quality ABS moulded connectors to get proper alignment. Fixed seat: It's a 14mm thk high quality moulded ply with laminate finish on top of size 450mm L x 380mm D. Themoulded ply seat is mounted on a robust 4mm thk MS – press formed bracket. The seat & bracket are designed totake care of adequate load. Horrizantal Beams: Beams are extruded aluminium of 6063 grade alum alloy & comes with anodised finish. Top & Bottom beam with a rounded square section provided with adequate internal ribbing to take care of cantilever load. Feet: It is made out of 16g (1.60mm thk) CRCA sheet with powder coating finish of 40-60 microns. Each desk will have 1number bag hook Make: Featherlite / Monarch / Wipro (Attach images with the technical bid)	6	Sets					
1.3	Last Row SIZE - 1650L x 600D x 815H (3 Seater ) Specifications : Table top made up of 25mm thick prelaminated particle board with matching 2mm edge lipping.10mm thk ply moulded BSL back rest / modesty with clear melamine finished edges & Size of each back rest540L x 355Ht.Two seater will have two back rests and three seater will have three.Such back rests are connectedeach other using high quality ABS moulded connectors to get proper alignment. Fixed seat: It's a 14mm thk high quality moulded ply with laminate finish on top of size 450mm L x 380mm D. Themoulded ply seat is mounted on a robust 4mm thk MS – press formed bracket. The seat & bracket are designed totake care of adequate load. Horrizantal Beams: Beams are extruded aluminium of 6063 grade alum alloy & comes with anodised finish. Top & Bottom beam with a rounded square section provided with adequate internal ribbing to take care of cantilever load. Feet: It is made out of 16g (1.60mm thk) CRCA sheet with powder coating finish of 40-60 microns. Each desk will have Inumber bag hook Make: Featherlite / Monarch / Wipro (Attach images with the technical bid)	1	Set					
	Room No AG08/10 (88-seater classroom)							

	Supply and Installation of Classroom seating with all standard accessories							
	Size - 1200L x 950D x 750H (2 Seater)							
1	Overall size of desk with two seats comes to 1200L x 950D x 750H Table top is made of 25mm thick prelampartical board material. This product comes with the desk & two chairs. Chairs are mounted on the swing mechanism that enables chairs to move front & back by about 30deg. This mechanism not only makes it easy for the student or user to get in & out, but also saves / optimises the space. The desk and chairs are fixed to the Leg, which is Steel formed & welded structure of about 65-70mm thick, it's unique in design & shape. Comes with a grouting arrangement. Desk is also fitted with a well-designed, sleek & laser finished metal modesty panel. Seats are attached on either side of the Leg through the swing mechanism. Swing mechanism is connected to the Leg through a heavy, thick & strong high pressure aluminium Die Cast part. All metal and diecast parts come with powder coating finish of 50-80 micron thickness. Seats also come with the feature of height adjustment. Seat height can be adjustable based on student / user's seating comfort. The desk comes with a bag hook welded to the both ends of the worksurface support beam. Support beam is a 40x40x1.60 thk MS ERW tubular structure, fixed to the steel Leg. Note - Grouting requires 4-to-5-inch thick Strong RCC flooring. <b>Make: Featherlite / Monarch / Wipro (Attach images with the technical bid)</b>	44	Sets					
Room	No AG12 (42-seater classroom)							
1	Supply and Installation of Classroom seating with all standard accessories Mid Row Size - 1100L x 600D x 815H (3 Seater ) Specifications : Table top made up of 25mm thick prelaminated particle board with matching 2mm edge lipping.10mm thk ply moulded BSL back rest / modesty with clear melamine finished edges & Size of each back rest 540L x 355Ht.Two seater will have two back rests and three seater will have three.Such back rests are connected each other using high quality ABS moulded connectors to get proper alignment. Fixed seat: It's a 14mm thk high quality moulded ply with laminate finish on top of size 450mm L x 380mm D. The moulded ply seat is mounted on a robust 4mm thk MS – press formed bracket. The seat & bracket are designed to take care of adequate load. Horrizantal Beams: Beams are extruded aluminium of 6063 grade alum alloy &comes with anodised finish. Top & Bottom beam with a rounded square section provided with adequate internal ribbing to take care of cantilever load. Feet: It is made out of 16g (1.60mm thk) CRCA sheet with powder coating finish of 40-60 microns. Each desk will have 1number bag hook Make: Featherlite / Monarch / Wipro (Attach images with the technical bid)	12	Sets					

1.1	Last Row Size - 1650L x 600D x 815H (3 Seater) Specifications : Table top made up of 25mm thick prelaminated particle board with matching 2mm edge lipping.10mm thk ply moulded BSL back rest / modesty with clear melamine finished edges & Size of each back rest 540L x 355Ht.Two seater will have two back rests and three seater will have three.Such back rests are connected each other using high quality ABS moulded connectors to get proper alignment. Fixed seat: It's a 14mm thk high quality moulded ply with laminate finish on top of size 450mm L x 380mm D. The moulded ply seat is mounted on a robust 4mm thk MS – press formed bracket. The seat & bracket are designed to take care of adequate load. Horrizantal Beams: Beams are extruded aluminium of 6063 grade alum alloy &comes with anodised finish. Top & Bottom beam with a rounded square section provided with adequate internal ribbing to take care of cantilever load. Feet: It is made out of 16g (1.60mm thk) CRCA sheet with powder coating finish of 40-60 microns. Each desk will have 1number bag hook Make: Featherlite / Monarch / Wipro (Attach images with the technical bid)	2	Sets					
	Room No A104 (78-seater classroom)							
1	<ul> <li>Supply and Installation of Classroom seating with all standard accessories</li> <li>SIZE - 1200L x 950D x 750H (2 seater)</li> <li>Specifications : Overall size of desk with two seats comes to 1200L x 950D x 750H</li> <li>Table top is made of prelampartical board material, which is water resistant and comes with a reverse waterfall edge design.</li> <li>This product comes with the desk &amp; two chairs. Chairs are mounted on the swing mechanism that enables chairs to move front &amp; back by about 30deg. This mechanism not only makes it easy for the student or user to get in &amp; out, but also saves / optimises the space.</li> <li>The desk and chairs are fixed to the Leg, which is Steel formed &amp; welded structure of about 65-70mm thick, it's unique in design &amp; shape. Comes with a grouting arrangement.</li> <li>Desk is also fitted with a well-designed, sleek &amp; laser finished metal modesty panel.</li> <li>Seats are attached on either side of the Leg through the swing mechanism.</li> <li>Swing mechanism is connected to the Leg through a heavy, thick &amp; strong high pressure aluminium Die Cast part. All metal and diecast parts come with powder coating finish of 50-80 micron thickness.</li> <li>Seats also come with the feature of height adjustment. Seat height can be adjustable based on student / user's seating comfort.</li> <li>The desk comes with a bag hook welded to the both ends of the worksurface support beam. Support beam is a 40x40x1.60 thk MS ERW tubular structure, fixed to the steel Leg.</li> <li>Note - Grouting requires 4-to-5-inch thick Strong RCC flooring.</li> </ul>	39	Sets					

	Make: Featherlite / Monarch / Wipro (Attach images with the technical bid)							
	Room No AG04 (49-seater classroom)							
1	Supply and Installation of Classroom furniture, complete with all standard accessories. Mid Row Size - 1100L x 900D x 815H (2 seater) Specifications : Table top made up of 25mm thick prelaminated particle board with matching 2mm edge lipping.10mm thk ply moulded BSL back rest / modesty with clear melamine finished edges & Size of each back rest540L x 355Ht.Two seater will have two back rests and three seater will have three.Such back rests are connectedeach other using high quality ABS moulded connectors to get proper alignment. Fixed seat: It's a 14mm thk high quality moulded ply with laminate finish on top of size 450mm L x 380mm D. Themoulded ply seat is mounted on a robust 4mm thk MS – press formed bracket. The seat & bracket are designed to take care of adequate load. Horrizantal Beams: Beams are extruded aluminium of 6063 grade alum alloy &comes with anodised finish. Top &Bottom beam with a rounded square section provided with adequate internal ribbing to take care of cantilever load. Feet: It is made out of 16g (1.60mm thk) CRCA sheet with powder coating finish of 40-60 microns. Each desk will have 1number bag hook. Make: Featherlite / Monarch / Wipro (Attach images with the technical bid)	12	Sets					
1.1	Last Row Size - 1100L x 600D x 815H (2 seater) x 2Sets = 4Nos.) Specifications : Table top made up of 25mm thick prelaminated particle board with matching 2mm edge lipping.10mm thk ply moulded BSL back rest / modesty with clear melamine finished edges & Size of each back rest540L x 355Ht.Two seater will have two back rests and three seater will have three.Such back rests are connectedeach other using high quality ABS moulded connectors to get proper alignment. Fixed seat: It's a 14mm thk high quality moulded ply with laminate finish on top of size 450mm L x 380mm D. Themoulded ply seat is mounted on a robust 4mm thk MS – press formed bracket. The seat & bracket are designed totake care of adequate load. Horrizantal Beams: Beams are extruded aluminium of 6063 grade alum alloy & comes with anodised finish. Top &Bottom beam with a rounded square section provided with adequate internal ribbing to take care of cantilever load. Feet: It is made out of 16g (1.60mm thk) CRCA sheet with powder coating finish of 40-60 microns. Each desk will have 1number bag hook" Make: Featherlite / Monarch / Wipro (Attach images with the technical bid)	2	Sets					
1.2	Mid Row Size - 1650L x 900D x 815H (3 Seater ) Specifications : Table top made up of 25mm thick prelaminated particle board with matching 2mm edge lipping.10mm thk ply moulded BSL back rest / modesty with clear melamine	6	Sets					

	finished edges & Size of each back rest540L x 355Ht.Two seater will have two back rests and three seater will have three.Such back rests are connectedeach other using high quality ABS moulded connectors to get proper alignment. Fixed seat: It's a 14mm thk high quality moulded ply with laminate finish on top of size 450mm L x 380mm D. Themoulded ply seat is mounted on a robust 4mm thk MS – press formed bracket. The seat & bracket are designed totake care of adequate load. Horrizantal Beams: Beams are extruded aluminium of 6063 grade alum alloy & comes with anodised finish. Top &Bottom beam with a rounded square section provided with adequate internal ribbing to take care of cantilever load. Feet: It is made out of 16g (1.60mm thk) CRCA sheet with powder coating finish of 40-60 microns. Each desk will have 1number bag hook							
1.3	Make: Featherlite / Monarch / Wipro (Attach images with the technical bid)         Last Row         SIZE - 1650L x 600D x 815H (3 Seater)         Specifications : Table top made up of 25mm thick prelaminated particle board with matching 2mm edge lipping.10mm thk ply moulded BSL back rest / modesty with clear melamine finished edges & Size of each back rest540L x 355Ht. Two seater will have two back rests and three seater will have three.Such back rests are connectedeach other using high quality ABS moulded connectors to get proper alignment.         Fixed seat: It's a 14mm thk high quality moulded ply with laminate finish on top of size 450mm L x 380mm D. Themoulded ply seat is mounted on a robust 4mm thk MS – press formed bracket. The seat & bracket are designed totake care of adequate load.         Horrizantal Beams: Beams are extruded aluminium of 6063 grade alum alloy & comes with anodised finish. Top &Bottom beam with a rounded square section provided with adequate internal ribbing to take care of cantilever load.         Feet: It is made out of 16g (1.60mm thk) CRCA sheet with powder coating finish of 40-60 microns.         Each desk will have 1number bag hook         Make: Featherlite / Monarch / Wipro (Attach images with the technical bid)	1	Set					
	C. AUDIO-VISUAL							
	Room No AG08/10 (88-seater classroom)							
	AUDIO							
1	Supply, Installation, Testing and Commissioning of Ceiling Speaker: Frequency Response 85 Hz - 19 kHz, with 3.25" LF driver, Sensitivity 83 dB, Power with 25W at 70V / 100V. Make: JBL / BOSE / Meyer Sound	6	Nos					
2	Supply, Installation, Testing and Commissioning of Mixer Amplifier: Frequency Response 50Hz - 15kHz, Power 500W, 6 mic input, USB, Impedance 4,8Ω,70V/100V. Make: JBL / BOSE / Power Soft	1	Nos					
3	Supply, Installation, Testing and Commissioning of Wireless Handheld Microphone Vocal Set: Gain control on pocket transmitter, Up to 30h playtime with one single AA battery, Plug & Play, Low battery indicator. Make: AKG / Shure / Sennheiser	2	Nos					

1	Supply, Installation, Testing and Commissioning of Wireless Collar			1	T			
4	Microphone: Carrier frequency range 500 – 865 MHz Modulation FM, Radio range (Line of sight)30m, Number of selectable frequencies 8, Battery type LR6 AA alkaline Battery, Operating time 8 hrs, Lapel Mic Electrical impedance 200 Ohms, Polar Pattern Cardioid. <b>Make: AKG / Shure / Sennheiser</b>	1	Nos					
5	Supply, Installation, Testing and Commissioning of 9U Equipment Rack: Includes tray, power strip, cooling fan. Make: D-Link / Netrack / Valrack	1	Nos					
6	Supply and Laying of Speaker Cable: 2 core 1.5 sq mm OFC speaker cable. Make: Krystal / Belden / Krammer	50	Mtr					
	VIDEO							
1	Supply, Installation, Testing and Commissioning of Projector :Up to 5,200 lumens of equal Colour and White Brightness1, Full HD WUXGA support, accepts 4K signal, Contrast ratio 2500000:1,Laser light source — up to 20,000 hours of use, Decibel Rating : 35 dB, Display from 127 cm (50 inch) to 1,270 cm (500 inch) diagonal (16:10) or ultra-wide (16:6) diagonal. <b>Make: Epson / Christie / Barco</b>	1	Nos					
2	Supply, Installation, Testing and Commissioning of Screen : Motorized Projection Screen, Size 137", Aspect ratio 16:10, Viewing Height 6', Viewing Width 9.6'. Make: Suvira / Elite screens / Chief	1	Nos					
3	Supply, Installation, Testing and Commissioning of Wall Plate: HDMI 2.0V Wall Plate Female to Female. Make: Liberty AV / Krammer / Extron	1	Nos					
4	Supply and Laying of HDMI Cable 15 mtrs Make: Liberty AV / Krammer / Extron	1	Nos					
5	Supply and Laying of HDMI Cable 3 mtrs Make: Liberty AV / Krammer / Extron	1	Nos					
6	Supply, Installation, Testing and Commissioning of Mount Kit : Provided for fixing the projector to the ceiling. Make: NT / Elite / Chief	1	Nos					
Room	No A104 (78-seater classroom)							
	AUDIO							
1	Supply, Installation, Testing and Commissioning of Ceiling Speaker: Frequency Response 85 Hz - 19 kHz, with 3.25" LF driver, Sensitivity 83 dB, Power with 25W at 70V / 100V. Make: JBL / BOSE / Power Soft	6	Nos					
2	Supply, Installation, Testing and Commissioning of Mixer Amplifier: Frequency Response 80 Hz to 18 kHz, Power 240W, 4 mic/line inputs and 1 BGM input, USB/Bluetooth. Make: JBL / BOSE / Power Soft	1	Nos					
3	Supply, Installation, Testing and Commissioning of Wireless Handheld Microphone Vocal Set: Gain control on pocket transmitter, Up to 30h playtime with one single AA battery, Plug & Play, Low battery indicator. Make: AKG / Shure / Sennheiser	1	Nos					

4	Supply, Installation, Testing and Commissioning of Wireless Collar Microphone: Carrier frequency range 500 – 865 MHz Modulation FM, Radio range (Line of sight)30m, Number of selectable frequencies 8, Battery type LR6 AA alkaline Battery, Operating time 8 hrs, Lapel Mic Electrical impedance 200 Ohms, Polar Pattern Cardioid. Make: AKG / Shure / Sennheiser	1	Nos					
5	Supply, Installation, Testing and Commissioning of 6U Equipment Rack: Includes tray, power strip, cooling fan. Make: D-Link / Netrack / Valrack	1	Nos					
6	Supply and Laying of Speaker Cable: 2 core 1.5 sq mm OFC speaker cable. Make: Krystal / Belden / Krammer	50	Mtr					
	VIDEO							
1	Supply, Installation, Testing and Commissioning of Projector :Up to 5,200 lumens of equal Colour and White Brightness1, Full HD WUXGA support, accepts 4K signal, Contrast ratio 2500000:1,Laser light source — up to 20,000 hours of use,Decibel Rating : 35 dB, Display from 127 cm (50 inch) to 1,270 cm (500 inch) diagonal (16:10) or ultra-wide (16:6) diagonal. <b>Make: Epson / Christie / Barco</b>	1	Nos					
2	Supply, Installation, Testing and Commissioning of Screen : Motorized Projection Screen, Size 137", Aspect ratio 16:10, Viewing Height 6', Viewing Width 9.6'. Make: Suvira / Elite screens / Chief	1	Nos					
3	Supply, Installation, Testing and Commissioning of Wall Plate: HDMI 2.0V Wall Plate Female to Female. Make: Liberty AV / Krammer / Extron	1	Nos					
4	Supply and Laying of HDMI Cable 15 mtrs Make: Liberty AV / Krammer / Extron	1	Nos					
5	Supply and Laying of HDMI Cable 3 mtrs Make: Liberty AV / Krammer / Extron	1	Nos					
6	Supply, Installation, Testing and Commissioning of Mount Kit : Provided for fixing the projector to the ceiling. Make: NT / Elite / Chief	1	Nos					

# Financial Bid: Summary Sheet

S. No.	Items	Price (Rs)	GST (Rs)	Price with GST (Rs)
1.	Infrastructure			
2.	Furniture			
3.	Audio-Visual			
	Total			