TITLE

Notice inviting e-Tender for the work "**Development of Environmental Laboratory at CPCB Regional Directorate – Shillong**"

Enquiry Particulars

Regional Office	EE-CED-IV CCU KOL
Office Inviting Bids	EE-CED-IV CCU KOL
Tender ID	84326
NIT/RFP NO	02/2024-25/SE/CCU/CED-IV/Shillong Recall3
Name of Work	Development of Environmental Laboratory at CPCB Regional Directorate - Shillong
Subwork/Packages	
Time Allowed	6 months
Tender Type	OPEN
Procurement Type	WORKS
Type of Work	Civil Works - Buildings
Category of Tendered	COMPOSITE
Estimated Cost	1,60,67,548
Bid Type	Percentage
Bid Submission Closing Date & Time	13/08/2024 15:00
Bid Validity Period (In Days)	30
Bid Validity Expiry Date	12/09/2024 15:30
Tender Notice Type	Standard Notice Tender
Competitive Bidding Type	NCB

Tender Inviting Authority Particulars

Office Inviting Bids	EE-CED-IV CCU KOL
Designation	Executive Engineer
Address	AJCB Indian Botanic Garden, CNH Building, Shibpur Howrah
Contact Details	9007026603
Email	eeced4ccu.mef@gmail.com

EMD Details

EMD(INR)	EMD In Favour Of	Mode of Payment
Rs. 3,21,351	Executive Engineer, CED-I, CCU, MoEF&CC, New Delhi	DD,FDR,BC,BG

Bid Openers

Department User Name	Region	Mobile Number	Email	Designation	Certificate serial No	Certificate Expiry
Mohan Kumar Ray	EE-CED-IV CCU KOL	9007026603	mohankumarray1967@gmail.com	Executive Engineer	171e739	22/08/2025 05:13
BIPLAB KUMAR BISWAS	EE-CED-IV CCU KOL	8910446279	biplabbiswas823@yahoo.in	Assistant Engineer	42d3ab7cd19b7b57	01/08/2025 13:58

Tender Documents

S.No	File Name	File Description	File Size (in Bytes)	Uploaded Date

1	NIT02SECCUCEDIV202425_Upload - Recall3.zip	All documents	1325721	05/08/2024 10:03

Mandatory Documents Details

S.No	Documents Required from Vendor	Document Type
1	As per NIT Page 4	Mandatory

Eligibility Documents Details

S.No	Documents Required from Vendor	Document Type
1	Eligibility Documents	Mandatory

Tender Covers

S.No	Cover Name	Bid Opening date	Dependent Cover Name
1	Single Bid	13/08/2024 15:30	

Single Bid

S.No	File Name	File Size(in Bytes)
1	84326-PercentageComposite1.xls	60928

Government Of India

Ministry Of Housing & Urban Affairs

Central Public Works Department

Excellence in Public Works

Tender Published

Current Tender Details

Tender ID	84326	**NIT/RFP NO**	02/2024-25/SE/CCU/CED-IV/Shillong Recall3
Name of Work	Development of Environmental Laboratory at CPCB Regional Directorate - Shillong		
Procurement Type	Works	**Bid Type**	Percentage
Tender Type	OPEN	**Estimated Cost**	₹ 1,60,67,548 (One Crore Sixty Lakh Sixty Seven Thousand Five Hundred and Forty Eight Rupees)
Bid Submission Closing Date	13/08/2024 15:00	**Competitive Bidding Type**	NCB

Tender Published Successfully.

Share to :

APPROVAL OF NIT

Notice Inviting Tender No. -		**02/2024-25/SE/CCU/CED-IV/Shillong Recall3**
Name of work	**:**	**Development of Environmental Laboratory at CPCB Regional Directorate - Shillong.**
Estimate cost	**:**	**Rs. 1,60,67,548/-**
Earnest Money	**:**	**Rs. 3,21,351/-**
Performance Guarantee	**:**	**@ 5% of Tendered Amount**
Security Deposit	**:**	**@ 2.5% of Tendered Amount**
Time Allowed	**:**	**6 (Six) Months**

This NIT amounting to Rs. **1,60,67,548/- (Rupees One Crore Sixty Lakh Sixty Seven Thousand Five Hundred Forty Eight Only)** is hereby approved**.**

Certified that this NIT contains Pages 1 to 129.

Assistant Engineer (E) (P)-I
CCU, MoEF&CC, New Delhi

Assistant Engineer (C) (P)-II
CCU, MoEF&CC, New Delhi

Executive Engineer (P)
CCU, MoEF&CC, New Delhi

Superintending Engineer
CCU, MoEF&CC, New Delhi

CIVIL CONSTRUCTION UNIT

MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE

NOTICE INVITING TENDER

Name of Work: Development of Environmental Laboratory at CPCB Regional Directorate - Shillong.

NIT NO. **:** 02/2024-25/SE/CCU/CED-IV/Shillong Recall3

Superintending Engineer
CCU, MoEF&CC, New Delhi

INDEX

Name of work: Development of Environmental Laboratory at CPCB Regional Directorate - Shillong.

NIT No.: 02/2024-25/SE/CCU/CED-IV/Shillong Recall3

Executive Engineer, CED-IV, CCU
(For and on behalf of the President of India)

PART-A

INFORMATION AND INSTRUCTIONS FOR BIDDERS FOR E-TENDERING FORMING PART OF BID DOCUMENT

The Executive Engineer, CED-IV, Civil Construction Unit (CCU), Ministry of Environment, Forest & Climate Change (MoEF&CC), AJCB Indian Botanic Garden, CNH Building, Shibpur, Howrah (**email- eeced4ccu.mef@gmail.com, Mo. 9433581744**) on behalf of President of India invites online Percentage rate bids from approved and eligible CPWD registered contractors for the following work: -

NIT No.	**02/2024-25/SE/CCU/CED-IV/Shillong Recall3**
Name of Work	**Development of Environmental Laboratory at CPCB Regional Directorate - Shillong.**
Location	Shillong
Estimated cost put to bid	**Rs. 1,60,67,548/-**
Earnest Money	**Rs. 3,21,351/-**
Period of Completion	**06 Months**
Last time & date of submission of online bid, copy of receipt of deposition of original EMD and other documents as specified in Notice Inviting e-Tender.	**03:00 PM on 13/08/2024**
Time date of opening of bid	**03:30 PM on 13/08/2024**

1) The intending bidder must read the terms and conditions of CPWD-6 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.

2) Information and Instructions for bidders posted on websites shall form part of bid document.

3) The enlistment of the contractors should be valid on the last date of submission of bids. In case the last date of opening of bid is extended, the enlistment of contractor should be valid on the original date of opening of tender.

4) The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website **https://etender.cpwd.gov.in** free of cost.

5) But the bid can only be submitted after deposition of EMD through Payment Online payment mode and original bank guarantee including e-Bank guarantee (for balance amount as prescribed) **either in the office of Executive Engineer inviting bids or division office of any Executive Engineer, CPWD/CCU, MoEF&CC within the period of bid submission** and uploading the mandatory scanned documents as mentioned in the NIT, receipt for deposition of original EMD to any division office of CCU, MoEF&CC/ CPWD or office of **Executive Engineer, CED-IV, CCU, Kolkata** and other documents as specified.

6) Those contractors who are not registered or have not updated their profile on the website mentioned above, are required to get registered / update their profile beforehand. The necessary training materials including the videos with step-to-step process are available on download section of https://etender.cpwd.gov.in.

7) The intending bidder must have valid Class-III digital signature certificate with encryption key (combo type) to perform any operations / transactions on the e-tendering portal / website and the bidder should download and install the eMsigner on their system as per instructions available on download section ofhttps://etender.cpwd.gov.in.

8) On opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.

9) Contractor can upload documents in the form of JPG format and PDF format.

10) Contractor must ensure to quote rate in the prescribed column(s) meant for quoting rate in figures appears in yellow colour and the moment rate is entered, it turns sky blue. In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0". Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0" (ZERO).

    However, if a tenderer quotes nil rates against each item in item rate tender or does not quote any percentage above/below on the total amount of the tender or any section / sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer. The department reserves the right to reject any prospective bid without assigning any reason.

List of Documents to be scanned and uploaded within the period of tender submission

1) Scanned copy of original bank guarantee including e-Bank Guarantee of any commercial bank against EMD.

2) Enlistment Order of the Contractor.

3) Receipt of deposit of EMD in any divisions of CPWD/CCU, MoEF&CC

4) PAN Card issued by Income Tax Department.

5) GST Registration Certificate, if already obtained by the bidder.

    If the bidder has not obtained GST registration as applicable, then he shall scan and upload following under taking along with bid documents.

"If work is awarded to me, I/we shall obtain GST registration certificate, as applicable, within one month from the date of receipt of award letter or before release of any payment by CCU, whichever is earlier, failing which I/we shall be responsible for any delay in payments which will be due towards me/us on account of the work executed and/or for any action taken by CCU or GST department in this regard".

6) Any other Document as specified in the NIT.

Executive Engineer, CED-IV, CCU
(For and on behalf of the President of India)

CPWD 6 FOR E- TENDERING

1. Percentage rate bids are invited on behalf of President of India from approved and eligible CPWD registered contractors in building & roads for the work **"Development of Environmental Laboratory at CPCB Regional Directorate - Shillong".**

The enlistment of the contractors should be valid on the last date of submission of bids.

In case the last date of submission of bid is extended, the enlistment of contractor should be valid on the original date of submission of bids.

1.1 The work is estimated to cost **Rs. 1,60,67,548/-.** This estimate, however, is given merely as a rough guide.

2. Agreement shall be drawn with the successful bidders on prescribed Form No. **CPWD 7** which is available as a Govt. of India Publication and also available on website **www.cpwd.gov.in.** Bidders shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.

3. The time allowed for carrying out the work will be **06 (Six) months** from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.

4. The site for the work is available on as it is where it is basis. The architectural drawings shall be made available in phased manner, as per requirement of the same and as per approved programme of completion submitted by the contractor after award of work.

5. The bid document consisting of Plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents except Standard General Conditions of Contract (GCC) Form can be seen on website https://etender.cpwd.gov.in or www.cpwd.gov.in free of cost.

6. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.

7. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of bid as notified.

8. Earnest Money will be paid online through CPWD e-Tendering platform within the period of bid submission.

A part of earnest money is acceptable in the form of bank guarantee also. In such case minimum 50% of earnest money or Rs. 20 lac, whichever is less, shall have to be deposited through online mode, and balance may be deposited in shape of Bank Guarantee including e-Bank Guarantee any Commercial bank having validity for a period of g0 days for single bid works and 180 days for two bid system or more from the last date of receipt of bids which is to be scanned and uploaded by the intending bidders.

The earnest money given by all the tenderers except the lowest tenderer shall be refunded immediately after the expiry of stipulated bid validity period or immediately after acceptance of the successful bidder, whichever is earlier. However, in case of two/ three bid system, earnest money deposit of bidders unsuccessful during technical bid evaluation etc. should be returned within 30 days of declaration of result of technical bid evaluation.

Copy of Enlistment Order and certificate of work experience and other documents as specified in the notice inviting e- tender shall be scanned and uploaded on the e-Tendering website within the period of bid submission. However, certified copy of all the scanned and uploaded documents as specified in e- tender notice shall have to be submitted by the lowest bidder within a week physically in the office of tender opening authority. Online bid documents submitted by intending bidders shall be opened only of those bidders, who has deposited EMD online through CPWD e-tendering portal and Bank Guarantee including e- Bank Guarantee (for balance amount as prescribed) from a Commercial Bank on CPWD e-tendering platform and other documents scanned and uploaded are found in order.

9. The bid submitted shall become invalid and e-Tender processing fee (if applicable) shall not be refunded if:

   (i) The bidder is found ineligible.

   (ii) The bidder does not upload scanned copies of all the documents stipulated in the bid document.

   (iii) If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the lowest bidder in the office of bid opening authority.

   (iv) If a tenderer quotes nil rates against each item in item rate tender or does not quote any percentage above/below on the total amount of the tender or any section / sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer

10. The contractor whose bid is accepted will be required to furnish performance guarantee at specified percentage of the tendered amount as mentioned in schedule E and within the period specified in Schedule F. This guarantee shall be in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt or Bank Guarantee from any of the Commercial Banks in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F', including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor. The earnest money deposited along with bid shall be returned after receiving the aforesaid performance guarantee. The contractor whose bid is accepted will also be required to furnish either copy of applicable licenses/ registrations or proof of applying for obtaining labour licenses, registration with EPFO, ESIC and BOCW Welfare Board including Provident Fund Code No. If applicable and also ensure the compliance of aforesaid provisions by the subcontractors, if any engaged by the contractor for the said work within the period specified in Schedule F.

11. The description of the work is as follows: **"Development of Environmental Laboratory at CPCB Regional Directorate - Shillong."**

12. Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidders shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidders shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.

13. The competent authority on behalf of the President of India does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidders shall be summarily rejected.

14. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable for rejection.

15. The competent authority on behalf of President of India reserves to himself the right of accepting the whole or any part of the bid and the bidders shall be bound to perform the same at the rate quoted.

16. If relative working in CPWD then the contractor is not allowed to participate in the tendering process The contractor (enlisted or non-enlisted in CPWD) shall not be allowed to participate in the tender for work(s) in the CPWD Zonal/Circle /Division/Sub-division responsible for award and/or execution of contract(s) in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of the Chief Engineer and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working or are subsequently employed by him and who are near relatives to any Officer working in the CPWD. Any breach of this condition by the contractor would render him liable to be debarred for a period up to two years from tendering in CPWD as decided by the accepting authority mentioned in Schedule F and his decision will be excepted from clause 25.

17. No Engineer of Gazetted Rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the prior permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the bid or engagement in the contractor's service.

18. The bid for the work shall remain open for acceptance for a period of 30 (Thirty) days from the date of opening of tenders.

i) If any tenderer withdraws his tender or makes any modification in the terms & conditions of the tender which is not acceptable to the department within 7 days after last date of submission of bids, then the Government shall without prejudice to any other right or remedy, be at liberty to forfeit 50% of the earnest money absolutely irrespective of letter of acceptance for the work is issued or not.

ii) If any tenderer withdraws his tender or makes any modification in the terms & conditions of the tender which is not acceptable to the department after expiry of 7 days after last date of submission of bids, then the Government shall without prejudice to any other right or remedy, be at liberty to forfeit 100% of the earnest money absolutely irrespective of letter of acceptance for the work is issued or not.

iii) In case of forfeiture of earnest money as prescribed in para (i) and (ii) above, the bidders shall not be allowed to participate in the rebidding process of the same work.

19. This notice inviting Bid shall form a part of the contract document. The successful bidders/contractor, on acceptance of his bid by the Accepting Authority shall within 15 days from the stipulated date of start of the work, sign the contract consisting of: -

i) The Notice Inviting Bid, all the documents including additional conditions, specifications and drawings, if any, forming part of the bid as uploaded at the time of invitation of bid and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.

ii) Standard C.P.W.D. Form 7 or other Standard C.P.W.D. Form as applicable.

iii) General Conditions of Contract 2023 for Construction works, Central Public Works Department, as corrected up to last date of submission of bids.

20. The main contractor has to associate agencies for specialized component(s) conforming to eligibility criteria as defined in the bid document and has to submit detail of such agency(s) to Engineer-in-Charge of relevant component(s) within prescribed time. Name of the agency(s) to be associated shall be approved by Engineer-in-Charge.

21. In case the main contractor intends to change any of the above agency/agencies during the operation of the contract, he shall obtain prior approval of Engineer-in- Charge. The new agency/agencies shall also have to satisfy the laid down eligibility criteria. In case Engineer-in-Charge is not satisfied with the performance of any agency, he can direct the contractor to change the agency executing such items of work and this shall be binding on the contractor.

22. The main contractor has to enter into MoU with agency(s) associated by him/ Copy of such MoU shall be submitted to Engineer in charge. In case of change of associate contractor, the main agency(s) has to enter into MoU/agreement with the new contractor associated by him.

Executive Engineer, CED-IV
(For and on behalf of the President of India)

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FORESTS & CLIMATE CHANGE

PERCENTAGE RATE BID AND CONTRACT FOR WORKS

Tender for the work of "**Development of Environmental Laboratory at CPCB Regional Directorate - Shillong.**"

i) To be uploaded by 15:00 hours on 13/08/2024 to/upload at
ii) To be opened in presence of tenderers who may be present at 15:30 hours on 13/08/2024 in the office of in the office of the Executive Engineer, CED-IV, Civil Construction Unit (CCU), Ministry of Environment, Forest & Climate Change (MoEF&CC), AJCB Indian Botanic Garden, CNH Building, Shibpur, Howrah.

TENDER

I/We have read and examined the notice inviting tender, schedule, A, B, C, D, E & F Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, clauses of contract, Special conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

I/We hereby tender for the execution of the work specified for the President of India within the time specified in Schedule 'F' viz., schedule of quantities and in accordance in all respect with the specifications, designs, drawing and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of contract and with such materials as are provided for, by, and in respect of accordance with, such conditions so far as applicable.

We agree to keep the tender open for acceptance for **Thirty (30)** days from the due date of its opening of bid and not to make any modifications in its terms and conditions.

A copy of earnest money deposit receipt of prescribed amount deposited in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee (as prescribed) issued by a Commercial Bank, is scanned and uploaded. If I/We, fail to furnish the prescribed performance guarantee within prescribed period, I/We agree that the said President of India or his successors, in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/We fail to commence work as specified, I/ We agree that President of India or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said performance guarantee absolutely. The said Performance Guarantee shall be a guarantee to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form. I/We hereby declare that I/we shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information derived there from to any person other than a person to whom I/we am/are authorized to communicate the same or use the information in any manner prejudicial to the safety and integrity of the State.

Further, I/We agree that in case of forfeiture of Earnest Money or Performance Guarantee as aforesaid, I/We shall be debarred for participation in the re-tendering process of the work.

I/We undertake and confirm that eligible similar work(s) has/have not been got executed through another contractor on back-to-back basis. Further that, if such a violation comes to the notice of Department, then I/We shall be debarred for tendering in CCU, MoEF&CC in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

I/We hereby declare that I/We shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information/derived there from to any person other than a person to whom I/We am/are authorized to communicate the same or use the information in any manner prejudicial to the safety & integrity of the State.

Signature of contractor
Postal Address ----------**
Telephone No. ----------**
Fax ----------**
E-MAIL ----------**

Witness:
Address:
Occupation:

** To be filled by Bidder

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of the President of India for a sum of Rs…….
(Rupees.....
.....
....)

The letters referred to below shall form part of this contract agreement: -

(a) ----------*
(b) ----------*
(c) ----------*

For & on behalf of President of India

Signature…….*

Dated: ----------* Designation
…….*

SCHEDULE – 'A', 'B', 'C', 'D', 'E' & 'F' FOR THE WORK

SCHEDULE 'A'

Schedule of Quantities - As per separate sheets attached

SCHEDULE 'B'

Schedule of materials to be issued to the contractor:

S. No.	Description of item	Quantity	Rates in figures & words at which the material will be charged to the contractor	Place of issue
1	2	3	4	5
----------NIL ----------				

SCHEDULE 'C'

Schedule of Tools and Plants to be hired to the contractor:

S. No.	Description	Hire charges per day	Place of issue
1	2	3	4
----------NIL ----------			

SCHEDULE 'D'

Extra schedule for specific requirements/document for the work, if any:	As per tender documents

SCHEDULE 'E'

Reference to General Conditions of contract	General Conditions of Contract 2023 for Construction works, Central Public Works Department, as amended up to last date of submission of bids.
Name of Work	Development of Environmental Laboratory at CPCB Regional Directorate - Shillong.
Estimated cost of the work	**Rs. 1,60,67,548/-**
Earnest money	Rs. 3,21,351/-
Performance Guarantee	5.00% of tendered amount
Security Deposit	2.50% of tendered amount.

SCHEDULE 'F'

GENERAL RULES AND DIRECTION

Officer inviting tender	The Executive Engineer, CED-IV, Civil Construction Unit (CCU), Ministry of Environment, Forest & Climate Change (MoEF&CC), AJCB Indian Botanic Garden, CNH Building, Shibpur, Howrah.
Maximum percentage of quantity of items of work to be executed beyond which rates are to be determined in accordance with Clause 12.2 & 12.3	See at appropriate clause

Definitions:

2(v)	Engineer-in-Charge	Executive Engineer, CED-IV, CCU, MoEF&CC or his or his legal successor or Assignee thereof.

2(viii)	Accepting Authority	Superintending Engineer, CCU, MoEF&CC or his or his legal successor or Assignee thereof
2(x)	Percentage on cost of materials and labour to cover all overheads and profits	7.5% for items of supply of materials and 15% for execution of items
2(xi)	Standard Schedule of Rates	
	Civil Works	DSR-2023 with correction slips issued upto last date of submission of bids and Market Rates
	Electrical & Mechanical Works	DSR-2022 with correction slips issued upto last date of submission of bids & Market rates
2(xii)	Department:	Civil Construction Unit, MoEF&CC
9(ii)	Standard CPWD Contract Form	CPWD Form 7 of General Conditions of Contract 2023 for Construction works, Central Public Works Department, as modified and corrected up to last date of submission of bids.

Clause 1		
i)	Time allowed for submission of Performance Guarantee, Programme Chart (Time and Progress) and applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board or proof of applying thereof from the date of issue of letter of acceptance	7 Days
ii)	Maximum allowable extension with late fee @0.1% per day of Performance Guarantee amount beyond the period as provided in i) above	3 Days
Clause 2	Authority for fixing Compensation under Clause 2	Superintending Engineer, CCU, MoEF&CC or his legal successor or Assignee thereof
Clause 5	Number of days from the date of issue of letter of acceptance for reckoning date of start	7 days or date of handing over of site whichever is later.

Mile stones as per table given below

Sl. No.	Description of mile stone (s)	Time allowed (From date of start)	Amount to be withheld in case of Non-achievement of each Mile stone(s)
1	Work done amounting to 20% of accepted tender amount (Civil + Electrical).	**1.5 Months**	1.25 % of accepted tendered amount.
2	Work done amounting to 45% of accepted tender amount (Civil + Electrical).	**03 Months**	1.25 % of accepted tendered amount.
3	Work done amounting to 75% of accepted tender amount (Civil + Electrical).	**4.5 Months**	1.25 % of accepted tendered amount.
4	Work done amounting to 100% of accepted tender amount (Civil + Electrical).	**06 Months**	1.25 % of accepted tendered amount.

Time allowed for execution of work: **06 (Six) Months**

Authority to decide:

i) Authority to convey the decision of shifting of milestone and extension of time:	Executive Engineer, CED-IV, CCU, MoEF&CC or his legal successor or Assignee thereof
ii) Authority to decide rescheduling of mile stones and extension of time.	Superintending Engineer, CCU, MoEF&CC or his legal successor or Assignee thereof
iii) Shifting of date of start in case of delay in handing over of site	Superintending Engineer, CCU, MoEF&CC or his legal successor or Assignee thereof

Schedule of handing over of site

Part	Portion of site	Time period for handing over reckoned from date of issue of letter of intent
Part A	Portion without any hindrance	On date of commencement
Part B	Portions with encumbrances	NA
Part C	Portions dependent on work of other agencies	NA

CLAUSE 5.4: Schedule of rate of recovery for delay in submission of the modified programme in terms of delay days

S.N.	Contract Value	Recovery Rs / Per day
1.	More than Rs. 1 Crore but less than or equal to Rs. 5 Crore	1000

Clause 6

i) Mode of measurement	CMB

Clause 7

Gross work to be done together with net payment/ adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment	**Rs. 20 Lakhs for Civil Works and 7 lakhs for Electrical & Mechanical works**

Clause 7A

No Running Account Bill shall be paid for the work till the applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable as submitted by the Bidder to the Engineer-in-Charge.	Yes

Clause 8 A: Completion plans to be submitted by the contractor

Authority to decide compensation on account if contractor fails to submit completion plans	Superintending Engineer, CCU, MoEF&CC or his legal successor or Assignee thereof.

Clause 10 A

List of testing equipment to be provided by the contractor at site lab.

As per details attached in the relevant pages of this bid document

Clause 10 B

Clause 10B (ii)	
Whether Clause 10 B (ii) shall be applicable	No

Clause 10 C

Whether Clause 10 C shall be applicable	Yes
Component of labour expressed as percent of value of work	25%

Clause 10CC – Not Applicable

Clause 11 :

Specifications to be followed for execution of civil work	**:**	CPWD Specifications 2019 Volume-I and II with correction slips issued upto last date of submission of bids.
Specifications to be followed for execution of Electrical & Mechanical Works	**:**	CPWD Specifications for Electrical Work. Part-I (Internal) 2023, Part- II (External) 2023, Part-IV (Substation) 2013, Part-VI Fire detection and alarm System-2018, HVAC 2017 and as amended up to date.

Building information model (BlM) is applicable and BIM professional to be deployed by contractor (NlT approving authority to write Yes or No)	:	N.A.

Clause 12 : Construction work

12.2 (c)	Deviation limit beyond which clause 12.2 (c) shall apply for building work.	:	100%
	i) Deviation limit beyond which clause 12.2 (c) shall apply for foundation work (except items mentioned in earth work sub head in DSR and related items)	:	100%
	ii) Deviation limit for items mentioned in earth work sub head of DSR and related items	:	100%

Clause 16 :

Competent authority for deciding reduced rates	:	Superintending Engineer, CCU, MoEF&CC or his legal successor or Assignee thereof

Clause 18 :

List of Mandatory Machinery, tools & plants to be deployed by the contractor at site: -

As per details attached in the relevant pages of this bid document

Clause 19

Clause 19 C	Authority to decide penalty for each default	Executive Engineer, CED-IV, CCU, MoEF&CC or his legal successor or Assignee thereof
Clause 19 D	Authority to decide penalty for each default	Executive Engineer, CED-IV, CCU, MoEF&CC or his legal successor or Assignee thereof
Clause 19 G	Authority to decide penalty for each default	Executive Engineer, CED-IV, CCU, MoEF&CC or his legal successor or Assignee thereof
Clause 19 K	Authority to decide penalty for each default	Executive Engineer, CED-IV, CCU, MoEF&CC or his legal successor or Assignee thereof

Clause 25: Settlement of disputes by Conciliation and Arbitration

Conciliator:	:	SE, CCU or his legal successor or Assignee thereof
Arbitrator Appointing Authority	:	Chief Engineer, CCU, MoEF&CC or his legal successor or Assignee thereof
Place of Arbitration	:	New Delhi

Clause 32 : Requirement of Technical Representative(s) and Recovery Rate

Sl. No.	Minimum Qualification of Technical Representative	Discipline	Designation	Minimum experience	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of Clause 32
1	Graduate Engineer Or Diploma Engineer	Civil + Electrical	Project manager cum planning/ quality/site/billing Engineer	2 or 5 years respectively	1+1	Rs. 30,000/- per month per person

1) Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers.

2) Diploma holder with minimum 10-year relevant experience with a reputed construction co. can be treated at par with Graduate Engineers for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50 % of requirement of degree engineers.

3) Minimum recovery for not deploying Building information Model (BlM) professional shall be Rs. two lac per month or as mentioned above, whichever is higher.

Clause 38

(i)	(a)	Schedule/statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rates	**DSR 2023 with Amendments/ Correction slips up to last date of submission of Tender**
(ii)		Variations permissible on theoretical quantities:	
	(a)	Cement	
		For works with estimated cost put to tender more than Rs. 5 lakh.	**3% (Three percent) plus/minus.**
		Bitumen for all works	**2.5% (Two-point five percent) plus only and nil on minus side.**
	(b)	Steel Reinforcement and structural steel sections for each diameter, section and category	**2% (Two percent) plus / minus**
	(c)	All other materials	**Nil**

RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION

S. No.	Description of item	Rates in figures and words at which recovery shall be made from the Contractor	
		Excess beyond permissible variation	Less use beyond permissible variation not permitted
1.	Cement OPC 43 grade /PCC	-	-
2.	Steel reinforcement bars	-	-
3.	Structural steel	-	-

- Nothing extra shall be paid for excess use of materials beyond the theoretical consumption.
- Less use of materials from the theoretical consumption is not permitted.

Annexure- 'A'

PROFORMA FOR THE RECEIPT TO BE ISSUED BY THE EXECUTIVE ENGINEER RECEIVING THE EMD

Receipt of deposition of original EMD (drawn in favour of **Executive Engineer, CED-I, CCU, MoEF&CC, New Delhi)** (Receipt No. ……../ date…….)		
Name of work	:	Development of Environmental Laboratory at CPCB Regional Directorate - Shillong.
NIT No	:	02/2024-25/SE/CCU/CED-IV/Shillong Recall3
Estimated Cost	:	**Rs 1,60,67,548/-**
Amount of Earnest Money Deposit	:	
Last date of submission of bid	:	
To be filled by EMD receiving Executive Engineer		
Name of contractor	:	
Form of EMD	:	
Amount of Earnest Money Deposit	:	
Date of Submission of EMD	:	
		(Signature) Name and Designation of EMD receiving officer (EE/AE(P)/AO/AAO) along with office stamp

Annexure-B

(On non-judicial stamp paper of minimum Rs. 100)

(Guarantee offered by Bank to CCU in connection with the execution of contracts)

Form of Bank Guarantee for Earnest Money Deposit /Performance Guarantee/Security Deposit

1. Whereas the Executive Engineer …… (name of division) ……..., CCU on behalf of the President of India (hereinafter called "The Government")has invited bids under ……(NIT number)……. dated …… for …… (name of work) …… The Government has further agreed to accept irrevocable Bank Guarantee for Rs. ……..…… (Rupees …… only) valid upto …… (date)*…… as Earnest Money Deposit from ……. (name and address of contractor) ……..(hereinafter called "the contractor") for compliance of his obligations in accordance with the terms and conditions of the said NIT.

   OR**

   Whereas the Executive Engineer …….. (name of division) ……., CCU on behalf of the President of India (hereinafter called "The Government") has entered into an agreement bearing number ……..... with ……..... (name and address of the contractor) …….. (hereinafter called "the Contractor") for execution of work ……(Name of work) ……... The Government has further agreed to accept an irrevocable Bank Guarantee for Rs. ……..……. (Rupees …… only) valid upto …….. (date)..…… as Performance Guarantee/Security Deposit from the said Contractor for compliance of his obligations in accordance with the terms and conditions of the agreement.

2. We, …… (indicate the name of the bank) ……. (herein after referred to as "the Bank"), hereby undertake to pay to the Government an amount not exceeding Rs. …….. (Rupees……. only) on demand by the Government within 10 days of the demand.

3. We, ……(indicate the name of the Bank) ……, do hereby undertake to pay the amount due and payable under this guarantee without any demur, merely on a demand from the Government stating that the amount claimed is required to meet the recoveries due or likely to be due from the said Contractor. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. ……..(Rupees …….only).

4. We, …… (indicate the name of the Bank) ……, further undertake to pay the Government any money so demanded notwithstanding any dispute or disputes raised by the contractor in any suit or proceeding pending before any Court or Tribunal, our liability under this Bank Guarantee being absolute and unequivocal. The payment so made by us under this Bank Guarantee shall be a valid discharge of our liability for

payment there under and the Contractor shall have no claim against us for making such payment.

5. We, …… (indicate the name of the Bank) ……, further agree that the Government shall have the fullest liberty without our consent and without affecting in any manner our obligation here under to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by the Government against the said contractor and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation or extension being granted to the said Contractor or for any forbearance, act of omission on the part of the Government or any indulgence by the Government to the said Contractor or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. We, …… (indicate the name of the Bank)…….., further agree that the Government at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor at the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee the Government may have in relation to the Contractor's liabilities.

7. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.

8. We, ……. (indicate the name of the Bank) ……., undertake not to revoke this guarantee except with the consent of the Government in writing.

9. This Bank Guarantee shall be valid up to ……. unless extended on demand by the Government. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs. …… (Rupees …….. only) and unless a claim in writing is lodged with us within the date of expiry or extended date of expiry of this guarantee, all our liabilities under this guarantee shall stand discharged.

Date .....

Witnesses:

1. Signature……
   Name and address
   Designation

   Authorized signatory
   Name
   Staff code no.

2. Signature …….
   Name and address

   Bank seal

*Date to be worked out on the basis of validity period of 90 days where only financial bids are invited and 180 days for two/three bid system from the date of submission of tender.

**In paragraph 1, strike out the portion not applicable. Bank Guarantee will be made either for earnest money or for performance guarantee/security deposit/mobilization advance, as the case may be.

LIST OF EQUIPMENTS FOR TESTING OF MATERIALS&CONCRETE AT SITE

LABORATORY

All necessary equipment for conducting all necessary tests shall be provided at the site in the well-furnished site laboratory by the contractor at his own cost The following minimum laboratory equipment's shall be set up at site office laboratory:

Sl. No.	Equipment	Numbers (Minimum)
1	Compressing testing machine	As per requirement of work
2	Cube mould	
3	Slump cone, steel plate, tamping rod, steel scale, scoop	
4	Graduated glass measuring cylinder	
5	Sets of sieves of 450mm internal dia for coarse aggregate [100mm, 80mm, 40mm; 20mm;12.5mm, 10mm;4.75mm complete with lid and	
8	Sets of sieves of 200mm internal dia for fine aggregate [4.75mm;2.36mm;1.18mm; 600 microns;300 microns& 150micron ,	
9	Sieve Brushes and sieve shaker capable of 200mm and 300mm dia sieves, manually operated with timing switch assembly	
10	Electronic balance 600gx0.1g., 10kg ~~and 50kg~~	
11	Physical balance weight upto 5 kg	
12	Measuring jars100ml, 200ml,500ml	
13	Gauging trowels 100mm & 200mm with wooden Handle	
14	Spatula 100mm & 200mm with long blade wooden Handle	
15	Vernier callipers12" &6" size	
16	GI tray 600x450x50mm, 450x300x40mm,300x250x40mm	
17	Screw gauge 0.1mm-10mm, least count 0.05	
18	Set of box spanner	
19	Hammer1lb & 2lb	
20	Rubber Hammer	
21	Hacksaw with 6 blades	
22	Measuring tape 5mtr	
23	Depth gauge 20cm	
24	Shovels &Spade	

Note: The above list is only indicative and not exhaustive. The contractor may be required to provide more equipment's as per the requirement of work and as per the direction of the engineer- in- charge.

LIST OF MANDATORY MACHINERY, TOOLS & PLANTS TO BE DEPLOYED BY THE CONTRACTOR AT SITE

S. No.	Equipment	Numbers (Minimum)
1.	Needle Vibrators.	As per requirement of work
2.	Plate Vibrator	
3.	JCB, Excavator, Dumper, Tipper	
4.	Reinforcement cutting & Bending machines	
5.	Total station.	
6.	Auto level & staff.	
7.	Water tanker (Minimum capacity of 5000 litres)	
8.	Welding machine 400 Ampere	
9.	Screener for coarse sand and fine sand	
10.	Centrifugal mono block water pump minimum capacity 2 HP	
11.	Steel Shuttering with necessary steel props	
12.	Steel scaffolding and staging materials	
13.	Plain Concrete/Mortar Mixer	
14.	Semi-Automatic Pavement Concrete Paver	
15.	Screed Vibrator	
16.	Any other machinery required for completion of the work as per decision of Engineer-in-charge.	

PART-B

ADDITIONAL CONDITIONS, SPECIFICATIONS AND APPLICABLE TO CIVIL WORK, SCHEDULE OF QUANTITIES

ADDITIONAL CONDITIONS

1. GENERAL

1.1. The Contractors are advised to inspect and examine the site and its surroundings and satisfy themselves with the nature of site, the means of access to the site, the constraints of space for stacking material / machinery, labour etc., constraints put by local regulations (if any), weather conditions at site (rainfall, snowfall, winter/summer temperatures etc.), general ground / subsoil conditions etc. or any other circumstances which may affect or influence their tenders. No claims, whatsoever, shall be entertained at a later date for any errors found, on plea that the information supplied by the Department in the tender is insufficient or is at variance with the actual site conditions.

1.2. The work shall generally be carried out in accordance with the "CPWD Specifications 2019 Vol. I & II" with correction slips up to last date of submission of bid (including any extension in last date of bid submission), additional/Particular Specifications, Architectural/Structural drawings and as per instructions of Engineer-in-Charge. Any additional item of work, if taken up subsequently, shall also conform to the relevant specifications mentioned above.

1.3. The several documents forming the tender are to be taken as mutually complementary to each other. Detailed drawings shall be followed in preference to small scale drawings and figured dimensions in preference to scale dimensions. Between two or more Clauses of this Contract, the provisions of a specific Clause relevant to the issue under consideration shall prevail over those in other Clauses.

1.4. Should there be any difference or discrepancy between the description of items as given in the particular specifications for individual items of work, special conditions and I.S. Codes, drawings etc., the following order of preference shall be observed-

(i) Nomenclature of items as per Schedule of Quantities
(ii) Special/Additional Conditions
(iii) Particular Specifications
(iv) Architectural/Structural drawings
(v) CPWD Specifications including upto date correction slips.
(vi) CPWD General Conditions of Contract (2023) for Construction works including correction slips issued up to last date of submission of bid including extensions if any.
(vii) Indian Standards Specifications of B.I.S.
(viii) ASTM, BS, or other foreign origin code mentioned in tender document.
(ix) Manufacturer's specifications and as decided by the Engineer-in-Charge.
(x) Sound Engineering practices or well-established local construction practices.

1.5. A reference made to any Indian Standard Specifications in these documents, shall imply to the latest version of that standard, including such revisions / amendments as issued by the Bureau of Indian Standards up to last date of receipt of tenders. The Contractor shall keep at his own cost all such publications of relevant Indian Standard applicable to the work at site.

1.6. The tenderer shall acquaint himself with the proposed site of work, its approach roads, working space available etc. before quoting his rates and no claim on this account shall be entertained by the department.

1.7. The contractor will not be allowed to construct labour huts in the Campus. The contractor has to make arrangement for labour huts outside Campus at his own cost. Nothing extra shall be paid on this account.

1.8. The contractor shall keep the site neat & clean during execution of the work and cover the building materials with cloths.

1.9. In case of any fine imposed by authorities due to scattered malba / building materials or any harm due to malba / materials or by worker of the contractor the same shall be paid by contractor within prescribed period otherwise same shall be recovered from the bills or securities / performance guarantee of the contractor.

1.10. The contractor(s) shall get himself acquainted with nature and extent of the work and satisfy himself about the availability of materials from kiln or approved quarries for collection and conveyance of materials required for construction.

1.11. Any legal or financial implications resulting out of disposal of earth shall be sole responsibility of the contractor. Nothing extra shall be paid on this account.

1.12. The tenderer shall see the approaches to the site. In case any approach from main road is required at site or existing approach is to be improved and maintained for cartage of materials by the contractor, the same shall be provided, improved and maintained by the contractor at his own cost. No payment shall be made on this account and the quoted rates shall be deemed to be inclusive of all such activities.

1.13. The contractor(s) shall give to the local body, police and other authorities all necessary notices etc. that may be required by law and obtain all requisite licenses for temporary obstructions, enclosures etc. and pay all fee, taxes and charges which may be levied on account of these operations in executing the contract. The building work shall be carried out in the manner complying in all respects with the requirements of the relevant bylaws and regulations of the local body under the jurisdiction of which the work is to be executed and nothing extra shall be paid on this account.

1.14. The contractor shall ensure that there is no damage to adjoining property. If any such untoward incident happens, he shall be entirely responsible for any consequences besides making good any damages to the adjoining property whether public or private. He shall supply and maintain lights either for illumination or for cautioning the public at night.

1.15. The work shall be carried out in the manner complying in all respects with the requirements of the relevant bylaws and regulations of the local body under the jurisdiction of which the work is to be executed or as directed by the Engineer-in-charge and nothing extra shall be paid on this account.

1.16. The contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the owners, tenants or occupiers of adjacent properties and to the public in general and to prevent any damage to such properties and any pollution of smoke, streams and water-ways. He shall make good at his cost and to the satisfaction of the Engineer-in-Charge, any damage to roads, paths, cross drainage works or public or private property whatsoever caused thereon by the contractor. All waste or

superfluous materials shall be carried away by the contractor without any reservation entirely to the satisfaction of the Engineer-in-Charge.

1.17. Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to the occupants / users of building/adjacent properties.

1.18. Other agencies may also simultaneously execute and install the works of other civil and E&M services for the work. The contractor shall afford necessary facilities for the same. The contractor shall leave such recesses, holes, openings, trenches etc. as may be required for such related works and the contractor shall fix the same at time of casting of concrete, stone work and brick work, if required, and nothing extra shall be payable on this account.

1.19. The contractor shall conduct work so as not to interfere with or hinder the progress or completion of the work being performed by other contractor(s) or by the Engineer-in-Charge and shall as far as possible arrange his work and shall place and dispose of the materials being used or removed so as not to interfere with the operations of other contractor or he shall arrange his work with that of the others in an acceptable and coordinated manner and shall perform it in proper sequence to the complete satisfaction of others.

1.20. Royalty at the prevailing rates wherever payable shall have to be paid by the contractor on the boulders, metal, shingle, sand, local earth/soil and bajri etc. or any other material collected by him for the work direct to revenue authorities and nothing extra shall be paid by the department for thesame.

1.21. Permission for the Excavation of the Basement and/or any Mining Approval along with carriage and disposal of surplus excavated earth shall be obtained by the contractor at his own expenses from Local Administration / Revenue Authority. Department / Client Department shall only forward the case to the concerned Authority. Moreover, all the fee including royalty for surplus excavated earth is to be paid by the contractor to the concerned department. Nothing extra shall be paid on accountof this to the contractor.

1.22. No payment shall be made for any damage caused by rain, snowfall, flood or any other natural calamity, whatsoever during the execution of the work. The contractor shall be fully responsible for any damage to the govt. property and work for which the payment has been advanced to him under the contract and he shall make good the same at his risk and cost. The contractor shall be fully responsible for safety and security of his material, T&P, Machinery brought to the site by him.

1.23. The contractor shall deploy adequate resources e.g. manpower, labour, T&P, Plant & Equipment etc. as per actual requirement of work.

1.24. The rates for all items of work shall, unless clearly specified otherwise, include cost of all labour, material, tools and plants and other inputs including all heights/depths, leads and carriages involved in the execution of the item.

1.25. The Contractor shall keep himself fully informed of all acts/laws of the Central/State/Local Governments, orders of central/state/local government, decrees of statutory bodies, tribunals

having any jurisdiction or authority, which in any manner may affect those engaged or employed and anything related to carrying out the work. All the rules & regulations and bye-laws laid down by Collector / Municipal Corporation of area (where site is located) and any other statutory bodies shall be adhered to, by the contractor, during the execution of work. The Contractor shall also adhere to all traffic restrictions notified by the national/state/local authorities. The contractor shall abide and ensure compliances to terms and conditions of various approvals obtained for the project. He shall protect and indemnify the Department and it's officials & employees against any claim and /or liability arising out of violations of any such laws, ordinances, orders, decrees, by himself or by his employees or his authorized representatives. The Contractor shall indemnify the Department against all claims in respect of patent rights, royalties, design, trademarks- of name or other protected rights, damages to adjacent buildings, roads or members of public, in course of execution of work or any other reasons whatsoever, and shall himself defend all actions arising from such claims and shall indemnify the Department in all respect from such actions, costs and expenses. Nothing extra shall be payable on this account.

1.26. The fee payable to statutory authorities for obtaining the various permanent service connections and occupancy certificate for the building shall be borne by the Department.

1.27. The rates for all items shall be considered as inclusive of pumping/baling out water, if necessary, for which no extra payment shall be made. The conditions shall be considered to include water from any source such as inflow of flood, rain water, surface drainage, sewerage or due to any other reason including surface and sub-soil water etc. and shall apply to the executionin any season.

1.28. Unless otherwise specified in the schedule of quantities, the rates tendered by the contractor shall be inclusive of all costs & taxes and shall apply to all leads, lifts, depth and height and nothing extra shall be payable on this account.

1.29. For completing the work in time, the Contractor might be required to work in two or more shifts (including night shifts). Normally contractors shall not be allowed to execute the RCC, electrical and finishing work at night. Work at night shall, however, be allowed if the site conditions/circumstances so demand. No claim whatsoever shall be entertained on this account, not with-standing the fact that the contractor may have to pay extra amounts for any reason, to the labours and other staff engaged directly or indirectly on the work according to the provisions of the labour Act and other statutory bodies regulations and the agreement entered upon by the contractor with them.

1.30. The contractor shall maintain in perfect condition, all portions executed till completion of the entire work allotted to him. Where however phased delivery of work is contemplated these provisions shall apply separately to each phase.

1.31. All material shall only be brought at site as per program finalized with the Engineer-in-Charge. Any pre-delivery of the material not required for immediate consumption shall not be accepted and thus not paid for.

1.32. The contractor(s) shall take instructions from the Engineer-in-Charge regarding collection and stacking of materials at any place. No excavated earth or building rubbish shall be stacked on areas where other buildings, roads, services and compound walls are to be constructed. The stacking shall take place as per stacking plan however, if any change is required, the same shall be done with the approval of Engineer-in-Charge.

1.33. The Contractor shall bear all incidental charges for all type of cartage/carriage upto execution site, storage and safe custody of materials issued by department/arranged by the contractor.

1.34. The terms machine batched, machine mixed and machine vibrated concrete used elsewhere in agreement shall mean the concrete produced in concrete batching and mixing plant and if necessary, transported by transit concrete mixers, placed in position by the concrete pumps, tower crane and vibrated by surface vibrator /needle vibrator / plate vibrator, as the case may be to achieve required strength and durability.

1.35. The work should be planned in a systematic manner so that chase cuttings in the walls, ceilings and floors are minimized. Wherever absolutely essential, the chase shall be cut using chase cutting machines. Chases will not be allowed to be cut using hammer / chisel. The electrical boxes should be fixed in walls simultaneously while raising the brick work. The contractor shall ensure proper coordination of various disciplines viz. sanitary & water supply, electrical, fire- fighting and any other services.

1.36. Any cement slurry added over base surface for continuation of concerting for better bond is deemed to have been built in the items and nothing extra shall be payable and no extra cement considered in consumption on this account.

1.37. Existing drains, pipes, cables, over-head wires, sewer lines, water lines and similar service encountered in the course of the execution of work shall be protected against the damage by the contractor at his own expense. In case the same are to be removed and diverted. The same shall be payable to the contractor. The contractor shall work out the cost and the same shall be approved by Engineer-in-Charge. The contractor shall not store materials or otherwise occupy any part of the site in a manner likely to hinder the operation of such services.

1.38. The contractor shall be responsible for the watch and ward / guard of the buildings safety, fittings and fixtures provided by him against pilferage and breakage during the period of installations and thereafter till the building is physically handed over to the department. No extra payment shall be made on this account.

1.39. SAFETY PRECAUTIONS

(i) Contractor shall within two weeks of award of work, submit to the Engineer-in-Charge for his approval, list of measures for maintaining safety of manpower deployed for construction.

(ii) The contractor(s) shall erect the barricading of required height with Precoated galvanized iron profile sheet/MS sheets with proper structural support for enclosing the full area of constructions as per direction of Engineer-in-charge.

(iii) *Entry to the site shall be controlled for proper security of man and materials and to avoid accidents.*

(iv) Necessary personal protective and safety equipment's such as helmet, safety

shoes & harness, gloves etc. shall be provided to the all-site Engineers, Supervisory staff, labour and technical staff of the contractor by the Contractor at his own cost and to be used at site.

(v) The Contractor(s) shall take all precautions to avoid accidents by exhibiting necessary caution boards, day & night speed limit boards, red flags, red lights and providing barriers. He shall be responsible for all damages and accidents caused to existing/new work due to negligence on his part. No hindrances shall be caused to traffic during the execution of the work.

(vi) In case of any accident of labours/ contractual staff's the entire responsibility will rest on the part of the contractor and any compensation under such circumstances if becomes payable the same shall be entirely borne by the contractor and department shall have no role on this account.

(vii) It shall be ensured by the contractor that no electric live wire is left exposed or unattended to avoid any accidents in this regard.

(viii) Any trenching and digging for laying sewer lines/water lines/cables etc. shall be commenced by the contractor only when all men, machineries and materials have been arranged and closing of the trench(s) thereafter shall be ensured within the least possible time.

(ix) *The contractor shall have to work in pandemic / epidemic conditions such as* ***COVID 19*** *for which he has to make safety arrangement / measures for the workers / staff and for the premises meant for them, as per guidelines issued by Government and directions issued by Engineer-in-charge from time to time and nothing extra shall be paid on this account.*

1.40. QUALITY ASSURANCE

(i) The contractor shall ensure quality construction in a planned and time bound manner. Any sub-standard material/work beyond set out tolerance limit shall be summarily rejected by the Engineer-in-charge & contractor shall be bound to replace / remove such sub-standard / defective work immediately. If any material, even though approved by Engineer-In-Charge is found defective or not conforming to specifications shall be replaced / removed by the contractor at his own risk & cost.

(ii) All materials and fittings brought by the contractor to the site for use shall conform to the samples approved by the Engineer-in-charge which shall be preserved till the completion of the work. If a particular brand of material is specified in the particular specification, the same shall be used after getting the same approved from Engineer-In-Charge. Wherever brand / quality of material are not specified in the particular specifications; the contractor shall submit the sample as per list of preferred make given in tender documents. For all other items, materials and fittings of ISI Marked shall be used with the approval of Engineer-In-Charge. Wherever ISI Marked material / fittings are not available, the contractor shall submit samples of materials / fittings manufactured by firms of repute conforming to relevant specifications or IS codes and use the same only after getting the approval of Engineer-In-Charge.

(iii) The Contractor shall procure and provide all the materials from the manufacturers / suppliers as per the item description in schedule of quantity and particular specifications for the work. The equivalent brand other than brand / make mentioned in particular specification for any item, shall be permitted to be used in the work, only when the specified make is not available. This is, however, subject to documentary evidence produced by the contactor for non-availability of the brand specified and also subject to independent verification by the Engineer-in-Charge. In exceptional cases, where such approval is required, the decision of Engineer-in-Charge as regards equivalent make of the material shall be final and binding on the Contractor. No claim, whatsoever, of any kind shall be entertained from the Contractor on this account. Nothing extra shall be payable on this account. Also, the material shall be procured only after written approval of the Engineer-in-Charge.

(iv) Water tanks, taps, sanitary, water supply and drainage pipes, fittings and accessories should conform to byelaws and municipal body / corporation where CPWD Specifications are not available. The contractor should engage licensed plumbers for the work and get the materials (fixtures/fittings) tested by the Municipal Body/Corporation authorities wherever required at his own cost. Nothing extra shall be paid on this account.

(v) The tests, as necessary, shall be conducted in the laboratory approved by the Engineer–in-Charge. The samples shall be taken for carrying out all or any of the tests stipulated in the particular specifications and as directed by the Engineer-in-Charge or his authorized representative.

(vi) All the registers of tests (carried out at Construction Site or in outside laboratories) and all material at site (MAS) registers including cement register shall be maintained by the contractor which shall be issued to the contractor by Engineer-in-charge. All the entries in the registers will be made by the designated Engineering Staff of the contractor and same should be regularly reviewed by JE/AE/AEE/EE. Contractor shall be responsible for safe custody of all the registers.

(vii) The Contractor shall at his own risk and cost make all arrangements and shall provide all such facilities including material and labour, the Engineer-in-Charge may require for collecting, preparing, forwarding the required number of samples for testing as per the frequency of test stipulated in the contract specifications or as considered necessary by the Engineer-in-Charge, at such time and to such places, as directed by the Engineer-in-Charge. Nothing extra shall be payable for the above.

(viii) The Contractor or his authorized representative shall associate in collection, preparation, forwarding and testing of such samples. In case he or his authorized representative is not present or does not associate him, the result of such tests and consequences thereon shall be binding on the Contractor. The Contractor or his authorized representative shall remain in contact with the Engineer-in–Charge or his authorized representative associated for all such operations. No claim of payment or claim of any other kind, whatsoever, shall be entertained from the Contractor.

(ix) Unless specified otherwise, all the testing charges shall be borne by contractor.

(x) All the hidden items such as water supply lines, drainage pipes, electrical conduits, sewers etc. are to be properly tested as per the design conditions before covering.

(xi) The contractor shall give performance test of the entire installation(s) as per the standing specifications before the work is finally accepted and nothing extra whatsoever shall be payable to the contractor for the test.

(xii) The Contractor shall make available, on request from the Department, the copies of challan, cash memos, receipts and other certificates, if any, vouchers towards the quantity and quality of various materials procured for the work. The Contractor shall also provide information and necessary documentation on the name of the manufacturer, manufacturer's product identification, manufacturer's instructions, warning, date of manufacturing and test certificates (from manufacturers for the product for each consignment delivered at site), shelf life, if any etc., for the department to ensure that the material have been procured from the approved source and is of the approved quality, as directed by the Engineer-in-Charge. Wherever specified, day-to-day account of receipt of such material shall be maintained at site of work.

(xiii) If the Contractor does not provide adequate supporting staff or labour or both for carrying out field tests or collecting and forwarding samples to outside laboratory or for maintaining test records, Engineer in charge may carry out field tests or collect and forward sample to outside laboratory or appoint any person to maintain the registers at risk and cost of Contractor. The charges so incurred shall be entirely borne by contractor and shall be deducted from Running or final bill of contractor. Further***, recovery of Rs. 1000/- for each default shall be levied to contractor.***

1.41. CLEANLINESS OF SITE

(i) The Contractor shall not stack building material / malba / muck on the land or road of the local development authority or on the land owned by the others, as the case may be. So, the muck, rubbish etc. shall be removed periodically, from the site of work to the approved dumping grounds as per the local byelaws and regulations of the concerned authorities and all necessary permissions in this regard from the local bodies shall be obtained by the Contractor. Nothing extra shall be payable on this account. In case, the Contractor is found stacking the building material / malba as stated above, the Contractor shall be liable to pay the stacking charges / penalty as may be levied by the local body or any other authority and also to face penal action as per the rules, regulations and bye-laws of such body or authority. The Engineer –in-Charge shall be at liberty to recover, such sums due but not paid to the concerned authorities on the above counts, from any sums due to the Contractor including amount of the Security Deposit and performance guarantee in respect of this contract agreement.

(ii) The contractor shall take instructions from the Engineer-In-Charge regarding collection and stacking of materials at any place. No excavated earth or building rubbish shall be stacked on areas where other buildings, roads, services and compound walls are to be constructed.

(iii) The site of work shall be always kept clean due to constraints of space and to avoid any nuisance to the users of buildings in the adjacent plots. The Contractor shall take all care to prevent any water- logging at site. The wastewater, slush etc. shall not be allowed to be collected at site. For discharge into public drainage system, necessary permission shall be obtained from relevant authorities after paying the necessary charges, if any, directly to the authorities. The work shall be carried out in such a way that the area is kept clean and tidy. All the fees/charges in this regard

shall be borne by the Contractor. Nothing extra shall be payable on this account.

(iv) It is the responsibility of contractor to keep building neat and clean. The contractor shall spray the chemicals fumigate site area to check the mosquitoes at frequent interval or as directed by the Engineer in charge. The contractor shall also make lighting and temporary ventilation arrangement in basement.

(v) The contractor shall not wash the drum of TM (transit mixture) at site and shall avoid the spread of leachate / cement slurry to be spread at the site of work and all care shall be taken to keep the site neat and clean at his own cost.

1.42. Employ measures to segregate the waste on-site into inert, chemical or hazardous wastes. Recycle the unused chemical/hazardous wastes such as oil, paint, batteries and asbestos. The inert waste is to be disposed off to Municipal Corporation/local bodies dump yard and landfill sites.

1.43. The contractor shall provide potable water for all workers. The contractor shall provide the minimum level of sanitation and safety facilities for the workers at site. The contractor shall ensure cleanliness of workplace with regard to the disposal of waste and effluent; provide clean drinking water and latrines and urinals as per applicable standard.

2. Special condition for Cement

2.1. Agency shall procure OPC conforming to IS : 8112 / PPC conforming to IS : 1489 (Part 1) as required in the work from cement manufacturers mentioned in the list of Preferred makes for civil works.

2.2. Supply of cement shall be made in 50 kg. bags bearing manufacturer's name and ISI marking. Samples of cement arranged by the contractor shall be taken by the Engineer-in-Charge and got tested in accordance with provisions of the relevant BIS codes. In case the test results indicate that the cement arranged by the contractor does not confirm to the relevant BIS code the same shall stand rejected and shall be removed from the site by the contractor at his own cost within a week's time of written order from the Engineer-in-charge to do so.

2.3. The cement shall be brought at site in bulk supply of approximately **10 tonnes** or as decided by the Engineer-in-Charge.

2.4. The cement godown of the capacity to store a minimum of **200 bags** of cement shall be constructed by the contractor at site of work for which no extra payment shall be made.

2.5. Double lock provision shall be made to the door of the cement godown. The keys of one lock shall remain with the Engineer-in-charge or his authorized representative and the key of the other lock shall remain with the contractor. The contractor shall be responsible for the watch and ward and safety of the cement godown. The contractor shall facilitate the inspection of the cement godown by the Engineer-in-Charge at any time.

2.6. The cement shall be got tested by the Engineer-in-Charge and shall be used on the work only after satisfactory test results have been received. The contractor shall supply free of charge the cement required for testing including its transportation cost to test laboratories.

2.7. The actual issue and consumption of cement on work shall be regulated and proper accounts maintained. The theoretical consumption of cement shall be worked out as per procedure prescribed in clause 38 of the contract and shall be governed by conditions laid therein. In case the cement consumption is less than theoretical consumption including permissible variation, recovery at the rate so prescribed shall be made after ensuring structural soundness and stability on the basis of testing. In case of excess consumption, no adjustment need to made.

2.8. The cement brought to site and the cement remaining unused after completion of the work shall not be removed from site without the written permission of the Engineer-in-Charge.

2.9. The damaged cement shall be removed from the site immediately by the contractor on receipt of a notice in writing from the Engineer-in-Charge. If he does not do show within three days of receipt of such notice, the Engineer-in-Charge shall get it removed at the cost of the contractor.

2.10. Separate cement registers showing the receipt of the OPC and PPC shall be maintained at site. The contractor shall construct separate godowns for storage of OPC & PPC at site and nothing extra on this account shall be payable.

LIST OF PREFERRED MAKE / MANUFACTURERS FOR DIFFERENT MATERIALS TO BE USED IN THIS PROJECT FOR CIVIL WORKS

Acceptable makes of materials to be used in the work are enclosed. In case of non-availability of these makes, the Superintending Engineer, CCU may allow use of alternative makes on the recommendations of Engineer-in-charge. Only BIS marked materials in the list shall be used in the work. Non-BIS marked materials may be permitted by the Engineer-in-charge only when BIS marked materials are not manufactured. If approved make/brand of any material is not given in the list, the same will be approved by the Superintending Engineer, CCU on the recommendations of Engineer-in-charge.

S. NO.	DETAILS OF MATERIALS	MANUFACTURERS NAME
1	ANTI TERMITE PESTICIDES	BAYER, FMC INDIA, HINDUSTAN INSECTICIDES
2	STEEL (TMT FE-500D)	TATA TISCON, RINL, JINDAL STEEL & POWER LTD, JSW STEEL LTD. AND SAIL
3	STRUCTURAL STEEL SECTIONS	TATA, JINDAL, SAIL, RINL
4	CEMENT [OPC AND (P.P.C.) 43 GRADE)]	ACC, AMBUJA, ULTRATECH, WONDER, JK, SHREE
5	PRECAST DUCTS/DRAINS/ DRAIN COVER/KERB CHANNEL	KK, NITCO, KERAKROME, TERRAFIRMA, FUJISILVERTECH
6	WHITE CEMENT	BIRLA WHITE, J.K. WHITE, ULTRATECH
7	CC PAVERS	NITCO, UNISTONE, KK
8	VITRIFIED TILES (DOUBLE CHARGED / FULL BODY/ULTRA SLIM /ANTISKID / ACID-ALKALI RESISTANT)- (ALL TILES SHALL BE PROCURED FROM FULLY OWNED FACTORY OF THE MANUFACTURER AND NOT FROM JV / OUTSOURCED)	SOMANY, KAJARIA, RAK
9	CERAMIC GLAZED TILES	SOMANY, KAJARIA, RAK
10	WATER-PROOF CEMENT PAINT	SNOWCEM, ASIAN PAINT, SIKA, NEROLAC
11	SYNTHETIC ENAMEL PAINT	ASIAN PAINT, AKZONOBEL (DULUX), NEROLAC, ICI
12	PLASTIC EMULSION PAINT	ASIAN PAINT, NEROLAC, AKZONOBEL (DULUX),, ICI
13	DISTEMPER/ACRYLIC EMULSION PAINT	ASIAN PAINT, BERGER, NEROLAC, DULUX
14	TEXTURED PAINT	ASIAN, OIKAS, DULUX
15	STEEL PRIMER	NEROLAC, BERGER, ASIAN PAINTS
16	WOOD PRIMER	NEROLAC, BERGER, ASIAN PAINTS
17	EXTERIOR WATERPROOFING PAINT	RAINCOAT (DR. FIXIT), ASIAN, BERGER
18	WOOD FINISH (MELAMINE & PU POLISH)	ASIAN. ICI, JOTUN, NEROLAC

S. NO.	DETAILS OF MATERIALS	MANUFACTURERS NAME
19	LAMINATE	MERINO, GREENLAM, CENTURY, DURO
20	PLY BOARD, PLYWOOD (PINE BOARD)	GREEN, MERINO, CENTURY, DURO
21	SELF LEVELLING COMPOUND	MAPAI, ARDEX ENDURA, BIZZAR
22	EPDM GASKET	HANU, ANAND, VICTOR
23	WOOD ADHESIVE	FEVICOL, 3M, ARALDITE, SIKA
24	FLUSH DOOR (ALL FLUSH DOORS SHALL BE PROCURED FROM FULLY OWNED FACTORY OF THE MANUFACTURER AND NOT FROM JV / OUTSOURCED)	GREEN, MERINO, CENTURY, DURO
25	WATER REPELLENT PAINT	ARDEX ADURA, WEBER, PIDILITE
26	FIRE SEALENT	HILTI, 3M, MCCOY
27	TILE ADHESIVE	PIDILITE, ARDEX ENDURA, WEBER, MAPEI
28	STONE ADHESIVE	PIDILITE, ARDEX ENDURA, WEBER
29	DASH, ANCHORING FASTENERS	HILTI, FISCHER, CANON
30	ALUMINIUM COMPOSITE PANEL	ALUCOBOND, REYNOBOND, ALPOLIC
31	EPOXY GROUTING COMPOUND	PIDILITE, ARDEX ENDURA, WEBER, MAPEI
32	READY MIX GYPSUM PLASTER	SAINT GOBAIN, USG BORAL, ULTRATECH
33	READY MIX CEMENT PLASTER	WEBER, ULTRATECH, BIRLA WHILTE
34	SILICON SEALANT	GE, DOW CORNING, PIDILITE
35	GYPSUM BOARD	USG BORAL, LAFAGE, SAINT GOBAIN, KNAUF DANOLINE
36	FLOAT GLASS	ASAHI, MODI GLASS, SAINT GOBAIN GLASS
37	MECHANICAL COUPERS	USHA MARTIN, DEXTRA, HALFEN
38	CRYSTALLIANE CEMENTITIOUS WATERPROOFING COMPOUND	XYPEX CONSTRUCTION CHEMICAL, KRYTONE, PENETRON
39	WATERPROOFING MEMBRANE (SBS/HDPE/POLYUREA/CEMENTITIOUS ETC.)	SIKA, GRACE, SOPREMA
40	WATERPROOFING CUM PU FOAM INSULATION	SIKA, GRACE, SOPREMA
41	VERMICULLITE TREATMENT	NEWKEM, GRACE, SOPREMA
42	HOLLOW METAL PRESSED DOORS (METAL DOORS)	NAVAIR, TATA PRAVESH, SHAKTI HORMANN

S. NO.	DETAILS OF MATERIALS	MANUFACTURERS NAME
43	ROLLER BLIND	VISTA, MAC, HUNTER DOUGLUS
44	PRELAMINATED PARTICLE BOARD	MERINO, CENTURY PLY, GREENLAM
45	HYDRAULIC DOOR CLOSER, FLOOR SPRING, DOOR AUTOMATION	DORMA, GEZE, HAFELE, HORMANN
46	HARDWARES FOR FIRE RATED DOORS	HAFELE, DORMA, GEZE, HORMANN
47	HARDWARE FOR FURNITURE ITEMS	HETTICH, EBCO, HAFELE
48	STAINLESS STEEL FITTINGS/HARDWARE FOR WOODEN/METAL/GLAZED/STEEL DOOR & WINDOWS	HAFELE, DORMA, GEZE, HORMANN
49	WIRE MESH	STERLING ENTERPRISES, MICROMESH, HARVER STANDARD, INDIA WIRE MESH
50	ADHESIVE TAPE	3M, NORTON, BOPD, TESA
51	HIGH PERFORMANCE EPOXY BASED RESIN ANCHOR SYSTEM	FOSROC, CICO, SIKA
52	EPOXY MORTAR	FOSROC, SIKA, MYK LATICRETE, CICO
53	NUTS, BOLTS & SCREWS	GKW, KUNDAN, PRIYA, ATUL
54	ALUMINIUM SECTIONS FOR DOORS & WINDOWS ETC.	JINDAL, HINDALCO, BHORUKA
55	HARDWARE FITTINGS FOR ALUMINIUM WINDOWS & DOORS	GEZE, HAFELE, DORMA
56	MS SECTIONS (PIPES, BOXES CHANNELS)	JINDAL HISAR, TATA, SURYA
57	S.S. MATERIAL/HADRAILS/RAILINGS	JINDAL STAINLESS STEEL LTD., TATA STEEL, SAIL
58	WALL PUTTY	JK, BIRLA, ASAIN PAINT
59	FLOOR HARDENER	PIDILITE, FOSROC, SIKA, CICO
60	POLYSULPHIDE SEALANT	PIDILITE, ARDEX ENDURA, WEBER, BASF.
61	EXPANSION JOINT	MIGUA, CS, CAMEO
62	WATERPROOFING COMPOUND	FOSROC, SIKA, PIDILITE
63	ADMIXTURES/CURING COUMPOUND	FOSROC, SIKA, ATPL, KUNALCOM CHEM, ASIAN PAINT, PIDILITE
64	REFLECTIVE GLASS, TINTED GLASS, HIGH PERFORMANCE GLASS, LACQUERED GLASS	SAINT GOBAIN, ASAHI (INDIA), PILKINGTON
65	LOOKING GLASS / MIRROR	ATUL, MODI GUARD, GOLDEN FISH
66	HIGH PERFORMANCE GLASS	SAINT GOBAIN, ASAHI, PILKINGTON

S. NO.	DETAILS OF MATERIALS	MANUFACTURERS NAME
67	METAL/ALUMINUM FALSE CEILING	SAINT GOBAIN, HUNTER DOUGLUS, ARMSTRONG
68	AAC BLOCK	AEROCON, JINDAL BLOCK, MODCRETE, FINECRETE
69	AAC BLOCK ADHESIVE	ARDEX ENDURA, PIDILITE, WEBER
70	HIGH PRESSURE LAMINATE INTERIOR/EXTERIOR GRADE	MERINO, FUNDERMAX, GREENLAM
71	UPVC WINDOWS	FENESTA, ALUPLAST, KOENMERLING
72	WALL GUARD, HAND RAIL, CORNER GUARD	CONSTRUCTION SPECIALITIES / GRADUS INPROCORP INDIA PVT. LTD./WINDOWTECH
73	SOLID ACRYLIC SURFACE	MERINO, LG, GRANIUM, SAMSUNG-STARON
74	VINYL / CONDUCTIVE FLOORING, DADO SKIRTING	FORBO, TARAKETT, ARMSTRONG, GERFLOOR
75	CALCIUM SILICATE TILES FALSE CEILING	AEROLITE, RAMCO, HILUX
76	FIRE CHECK DOORS (METAL/ROLLING/GLAZED)	NAVAIR, TATA PRAVESH, SHAKTI HORMANN
77	FIRE CURTAIN	ORIENT, PACIFIC, KENT, NECO
78	LEAD LINED DOOR	NAVAIR, SHAKTI HORMANN, METAFLEX, RESPONSIVE
79	FIRE RESISTANT GLASS	SAINT GOBAIN, ASAHI, PILKINGTON
80	ALUMINIUM GLAZED DOORS/WINDOWS	HINDALCO, SHAKTI HORMANN, GLAZE TECHNO, SARLA
81	POLYESTER POWDER COATING/ PVDF COATING	JOTUN, AKZONOBEL, ASIAN PPG, NIPPON
82	GLASS PROCESSOR FOR MAKING DGU/TOUGHENING	AIS, ART N GLASS, GSC, KAENAL GLASS, SAINT GOBAIN
83	PVB/ SGP LAMINATE FILM, SENTRY FILM	DUPONT, SAFLEX, EASTMAN, LG, 3M
84	ACOUSTIC SEAL / DOOR SEAL	LORIENT, RAVEN, DORMA, 3M, HAFELE
85	PAINT AND PRIMER FOR FIRE CHECK DOOR.	VIPER, BERGER, NULLIFIRE
86	INTUMESCENT FIRE / SMOKESEAL	ASTRO FLAME, RAVEN, SEALZ, LORIENT
87	CALCIUM SILICATE BOARD FOR FIRE DOOR	PROMOTECH, PROMINA, RAMCO
88	FRP DOOR & FRAMES	FIBREWAYS, JAISHREE, FIBRE TECHNO, BHATT FRP, JAYNA
89	FLY ASH BRICKS	POWERBRICKS, PAUBHARA, YBW

S. NO.	DETAILS OF MATERIALS	MANUFACTURERS NAME
90	INSULATION	UP TWIGA, LLOYD, ROXUL ROCKWOOL, ROCKWOOLINDIA
91	ANTI BACTERIAL PAINT	JOTUN/LIQUIDE PLASTIC /CONSTRUCTION SPECIALITY
92	GRAPHIC FILM	3M, AVERY DENNISON
93	GRC/ FRP	BIRLA WHITE, UNISTONE, SANDERSON, SHENISHA CORPORATION
94	PLASTER OF PARIS	JK, BIRLA, SAKARNI, ULTRATECH
95	MR BOARD	SAINT GOBAIN, USG BORAL, ARMSTRONG
96	MINERAL FIBRE SUSPENDED CEILING SYSTEM	SAINT GOBAIN, USG BORAL, ARMSTRONG, KNAUF AMF
97	CURTAIN TRACK AND CURTAIN FABRIC	WINDOWTECH, DECOREX, MEDFRESHE, RESPONSIVE
98	POLYMER MODIFIED ADHESIVE	ULTRATECH, BALL ENDURA, PIDILITE, WEVER
99	ANTI BACTERIAL AND ANTI SKID VITRIFIED TILES	SOMANY, SIMPOLO, KAJARIA, JOHNSON, RAK
100	POLYCARBONATE SHEET	DANPALON, SOLALITE, DPI SYSTEM, EVERLITE, CPI
101	GI PIPES	JINDAL, PRAKASH SURYA
102	GI FITTINGS	UNIK, KS, ICS
103	CPVC PIPES	ASTRAL, PRINCE, SFMC
104	HDPE PIPES	SUPREME, FINOLEX, ASTRAL, RELIANCE, SMARTFLOW
105	CC (SPUN) IRON PIPE	NECO, SKF, HIF
106	CCI SOIL, WASTE, VENT PIPES & FITTINGS	NECO, SKF, HIF
107	C.P. BRASS FITTING	JAQUAR, ROCA, KOHLER
108	SS SINK	NILKANTH, NIRALI, JAYNA
109	C.P. BRASS BATHROOM ACESSORIES / FITTINGS	JAQUAR, ROCA, KOHLER
110	GLASS SHOWER PARTITION	DORMA, HAFELE, GEZE
111	SANITARY WARE (URINAL, WASH BASIN, WC ETC.)	JAQUAR, GROHE, KOHLER
112	GLASS MOSAIC TILE	ITALIA, CORAL, KAJARIA
113	LIQUID SOAP DISPENSER	EURONICS, TOSHI, UTEC, DOLPHY
114	HAND DRIER	EURONICS, TOSHI, UTEC, DOLPHY
115	AROMA DISPENSER	EURONICS, TOSHI, UTEC, DOLPHY

S. NO.	DETAILS OF MATERIALS	MANUFACTURERS NAME
116	SHOE SHINNING MACHINE	EURONICS, TOSHI, UTEC, DOLPHY
117	TISSUE DISPENSER WITH TRASH	EURONICS, TOSHI, UTEC, DOLPHY
118	HAND TOWEL DISPENSER	EURONICS, TOSHI, UTEC, DOLPHY
119	NITRILE RUBBER INSULATION	ARMACELL, K-FLEX, A-FLEX, SUPREME
120	FAÇADE AND WINDOW SYSTEM	SCHUCO, ALUK, REYNAERS, GUTMANN
121	FIRE STOP IN CURTAIN WALL SYSTEM	HILTI, 3M, FISCHER, LORIENT
122	POP OUT VENT FOR FAÇADE AND SYSTEM WINDOW HARDWARE	COTSWOLD, SCHUCO, ALUK, REYNAERS
123	ALUMINIUM OPERABLE LOUVER	TECHNAL, DOMAL, YOGI GLAZE, SCHUCO
124	AIR TRANSFER GRILL	RUSKIN, SYSTEM AIR, TROX, TREMCO
125	POLYURETHANE CONCRETE FLOORING, EPOXY FLOORING, SELF-LEVELLING FLOORING	ARDEX ENDURA, SIKA, MAPEI, SAINT GOBAIN - WEBER
126	ENGINEERED WOODEN FLOORING AND SKIRTING	MIKASA (GREENLAM), TARKETT, HAVWOODS, PARADOR (HIL), PERGO, KAHRS
127	RAISED/ FALSE ACCESS FLOORING SYSTEM	LINDNER, UNIFLOOR, TANKARIA, FLEXI FLOOR
128	SOLID SURFACE (CORIAN)	DUPONT, LG, STARON-SAMSUNG, LUXOR (DURLAX)
129	CAR DECK FLOORING SYSTEM	MAPEI, SAINT GOBAIN – WEBER, MYK ARMENT
130	ENGINEERED MARBLE	HR JOHNSON, KALINGA STONE, NITCO, QUASTONE
131	RUBBERISED PAVERS	SUNFLEX, FLOOR GUARD, BORON RUBBERS
132	COLOUR HARDENER	SIKA, FOSROC, PIDILITE
133	IPE WOOD	HKS FLOORING, INDIANA, RESHAWOOD
134	SYNTHETIC THATCH ROOFING	PALMEX, WINROYAL, SYNTHETIC THATCH
135	ASPHALT CEMENT SHINGLES	TAPCO, CERTAINTEED, MALARKEY
136	STRETCH MEMBRANE / TENSILE FABRIC	SERGE FERRARI, CHUKOH, MEHLER, VERSAIDAG
137	STAMP CONCRETE PIGMENT / APPLICATOR	UNITED FLOORING, CONCRETE BY DESIGN, FLEX STONE
138	SS TACTILE	EMINENT, FERROTECH, SUNDARAM, JINDAL

S. NO.	DETAILS OF MATERIALS	MANUFACTURERS NAME
139	BAMBOO DECKING, ROOFING & CLADDING	ECO GREEN FLOORING, EPITOME BAMBOOWOOD, LAMIWOOD
140	OUTDOOR SIGNAGES	3M, AVERY DENNISON, VEDAAANSHI SIGNS
141	ACOUSTIC PANELS	ARMSTRONG, USG BORAL, ANUTONE, ROCKWORTH,
142	C&D WASTE PRECAST ELEMENT	GM CONCRETE, ILFS
143	THERMOPLASTIC PAINT/ROAD MARKING PAINT	NEROLAC, ASIAN, SHALIMAR, BERGER, STP LTD
144	WEATHER/STRUCfTURE SILICON SEALENT	WACKER, MCCOY, DOW CORNING
145	BACKER ROD	SUPREME/SYSTRANS
146	POLYSTRENE BOARD	SUPREME, DOW CORNING, TEXAS, PIDILITE
147	DUCTILE IRON PIPES	ELECTROSTEEL, KESORAM, TISCO
148	STAINLESS STEEL PIPES AND FITTINGS	VIEGA, JINDAL STAINLESS STEEL, J-PRESS
149	SLUICE VALVES	SANT, ADVANCE, AUDCO, ZOLOTO, KIRLOSKAR, LEADER
150	GATE / BALL VALVES	SANT, LEADER, ZOLOTO
151	ELECTROMAGNETIC FLOWMETER	ENDRESS HAUSER, KROHNE MARSHALL, NEXTENG ENVIRO PVT LTD, SEIMENS, ABB
152	CI/DI MANHOLE COVER	NECO, SKF, RIF, BIC
153	DWC PIPES	NOBLE POLYTEC, ALOM POLY EXTRUSIONS LTD., ASTRAL, ANEK INDUSTRIAL PLASTICS
154	DRAIN CHANNEL WITH SS SLOTTED GRATING	ACO, KESSEL, PRUTHA
155	WATER BASED MELAMINE POLISH	ASIAN, PIDILITE, DULUX
156	ALL FURNITURE ITEMS	ROCKWORTH / SPACEPLUS DESIGN LABS/DURIAN/GODREJ/ STEELCASE / HERMAN MILLER/ HAWORTH
157	CARPET	SUPINOE/ MILLIKAN/ SHAW
158	IRRIGATION FITTINGS, VALVES AND OTHER ACCESSORIES	RAIN BIRD / NETAFIM / BERMAD / HUNTER / TORO
159	IRRIGATION PUMPS	LUBI / RAIN BIRD / GRUNDFOS

SCHEDULE OF QUANTITY

FOR CIVIL WORK

SCHEDULE OF QUANTITY

Name of work: Development of Environmental Laboratory at CPCB Regional Directorate - Shillong. (SH: Civil Work)

Sl No.	Description of Items	Quantity	Unit	Rate (Rs.)	Amount (Rs.)
1	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).	0.15	cum	11505.50	1725.83
2	Centering and shuttering including strutting, propping etc. and removal of form for:				
2.1	Suspended floors, roofs, landings, balconies and access platform	2.00	sqm	927.25	1854.50
2.2	Edges of slabs and breaks in floors and walls				
2.2.1	Under 20 cm wide	4.00	mtr	208.55	834.20
3	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.				
3.1	Thermo-Mechanically Treated bars of grade Fe-500D or more.	20.00	kg	107.85	2157.00
4	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in :				
4.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	0.70	cum	9105.95	6374.17
5	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed				

	with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing of edges to give high gloss finish etc. complete at all levels.				
5.1	Granite stone slab of colour black, Cherry/Ruby red				
5.1.1	Area of slab over 0.50 sqm	4.00	sqm	5136.30	20545.20
6	Extra for providing opening of required size & shape for wash basin/ kitchen sink in kitchen platform, vanity counter and similar location in marble/ Granite/ stone work, including necessary holes for pillar taps etc. including moulding, rubbing and polishing of cut edges etc. complete.	1.00	Nos	978.70	978.70
7	Providing and fixing stone slab with table rubbed, edges rounded and polished, of size 75x50 cm deep and 1.8 cm thick, fixed in urinal partitions by cutting a chase of appropriate width with chase cutter and embedding the stone in the chase with epoxy grout or with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 6 mm nominal size) as per direction of Engineer-in-charge and finished smooth.				
7.1	Granite Stone of approved shade	2.00	sqm	4051.85	8103.70
8	Providing and fixing Ist quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	40.00	sqm	1267.95	50718.00
9	Providing and fixing aluminium die cast body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 35 kg and door width upto 700 mm), with necessary accessories and screws etc. complete.	8.00	each	1124.85	8998.80
10	Structural steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in	493.00	Kg	117.35	57853.55

	position and applying a priming coat of approved steel primer all complete.				
11	Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2 mm and braced with flat iron diagonals 20x5 mm size, with top and bottom rail of T-iron 40x40x6 mm, with 40 mm dia steel pulleys, complete with bolts, nuts, locking arrangement, stoppers, handles, including applying a priming coat of approved steel primer.	9.20	sqm	11439.60	105244.32
12	Welding by gas or electric plant including transportation of plant at site etc. complete.	27.00	cm	3.70	99.90
13	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.				
13.1	In stringers, treads, landings etc. of stair cases, including use of chequered plate wherever required, all complete	300.00	kg	123.60	37080.00
14	Providing and fixing carbon steel galvanised (minimum coating 5 micron) dash fastener of 10 mm dia double threaded 6.8 grade (yield strength 480 N/mm2), counter sunk head, comprising of 10 mm dia polyamide PA 6 grade sleeve, including drilling of hole in frame , concrete/ masonry, etc. as per direction of Engineer-in-charge.				
14.1	10 x 120 mm	68.00	each	170.95	11624.60
15	Providing and fixing 1st quality ceramic glazed floor tiles conforming to IS : 15622 (thickness to be specified by the manufacturer) of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement: 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	6.00	sqm	1112.70	6676.20

16	Providing and laying full body Vitrified tiles in different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colours and shade, in skirting, riser of steps, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS: 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).				
16.1	Size of Tile 600x600 mm	31.00	Sqm	1893.90	58710.90
17	Grouting the joints of flooring tiles having joints of 3 mm width, using epoxy grout mix of 0.70 kg of organic coated filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg), including filling / grouting and finishing complete as per direction of Engineer-in-charge.				
17.1	Size of Tile 600x600 mm	370.00	sqm	309.05	114348.50
18	Providing and laying full body Vitrified tiles in floor with different sizes (thickness to be specified by the manufacturer), 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 of joints (Payment for grouting of joints to be made separately).				
18.1	Size of Tile 600x600 mm	339.00	Sqm	1725.35	584893.65
19	Providing and Fixing 15 mm thick densified tegular edged eco friendly light weight calcium silicate false ceiling tiles of approved texture of size 595 x 595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanised steel sections (galvanising @ 120 grams per sqm including both side) consisting of main 'T' runner suitably spaced at joints to get required length and of size 24x38 mm made from 0.33 mm thick (minimum) sheet, spaced 1200 mm centre to centre, and cross "T" of	339.00	Sqm	2158.15	731612.85

	size 24x28 mm made out of 0.33 mm (Minimum) sheet, 1200 mm long spaced between main'T' at 600 mm centre to centre to form a grid of 1200x600 mm and secondary cross 'T' of length 600 mm and size 24 x28 mm made of 0.33 mm thick (Minimum) sheet to be inter locked at middle of the 1200x 600 mm panel to from grid of size 600x600 mm, resting on periphery walls /partitions on a Perimeter wall angle pre-coated steel of size(24x24X3000 mm made of 0.40 mm thick (minimum) sheet with the help of rawl plugs at 450 mm centre to centre with 25 mm long dry wall screws @ 230 mm interval and laying 15 mm thick densified edges calicum silicate ceiling tiles of approved texture in the grid, including, cutting/ making opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc., wherever required. Main 'T' runners to be suspended from ceiling using G.I. slotted cleats of size 25x35x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm G.I. adjustable rods with galvanised steel level clips of size 85 x 30 x 0.8 mm, spaced at 1200 mm centre to centre along main 'T', bottom exposed with 24 mm of all Tsections shall be pre-painted with polyster baked paint, for all heights, as per specifications, drawings and as directed by Engineer-in-Charge. Note :- Only calcium silicate false ceiling area will be measured from wall to wall. No deduction shall be made for exposed frames/opening (cut outs) having area less than 0.30 sqm.The calcium silicate ceiling tile shall have NRC value of 0.50 (Minimum), light reflection > 85%, non- combustible as per B.S. 476 part IV, 100% humidity resistance and also having thermal conductivity <0.043 w/mK.				
20	12 mm cement plaster of mix :				
20.1	1:4 (1 cement: 4 coarse sand)	17.00	Sqm	357.35	6074.95

21	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.	17.00	Sqm	156.05	2652.85
22	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.				
22.1	Two coats	523.00	Sqm	142.80	74684.40
23	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content.				
23.1	With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre	523.00	Sqm	73.95	38675.85
24	Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	523.00	Sqm	25.15	13153.45
25	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :				
25.1	One or more coats on old work	186.00	Sqm	102.80	19120.80
26	Melamine polishing on wood work (one or more coat).	36.00	Sqm	1192.30	42922.80
27	Hacking of CC flooring including cleaning for surface etc. complete as per direction of the Engineer-in-Charge.	339.00	sqm	3.45	1169.55
28	Dismantling 15 to 40 mm dia G.I. pipe including stacking of dismantled pipes (within 50 metres lead) as per direction of Engineer-in-Charge.				
28.1	(a) Internal Work- Exposed on wall	22.00	mtr	3.25	71.50
29	Taking out existing wooden door shutter, repair by cutting, painting etc. and refixing of repaired door shutters to existing door frames, including replacement of hinges with screws, etc. as required, all complete as per the direction of the Engineer-in-charge.	7	each	429.10	3003.70

30	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	71.00	sqm	54.65	3880.15
31	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS:13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required :				
31.1	Kitchen sink without drain board				
31.1.1	610x510 mm bowl depth 200 mm	1.00	each	4940.80	4940.80
32	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.				
32.1	Flexible pipe				
32.1.1	40 mm dia	1.00	each	119.55	119.55
33	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing :				
33.1	Rectangular shape 1500x450 mm	1.00	each	2093.00	2093.00
34	Providing and fixing M.S. holder bat clamp of approved design to sand cast iron/ cast iron (spun) pipes comprising of M.S. flat brackets made of 50x5 mm flat of specified shape, projecting 75 mm outside the wall surface and fixed on wall with 4nos, 6mm dia expansion hold fasteners, including drilling necessary holes in brick wall/ CC/ RCC surface and the cost of bolts etc. The pipes shall be fixed to the already fixed brackets with the help of 30 mm x1.6 mm galvanised M.S. flats of specified shape and of total length 420 mm and shall be fixed with M.S. nuts, bolts, & washers of size 25x6 mm, one bolts on each side of the pipe.				
34.1	Total bracket length 580 mm of approved shape and design (for single 100 mm dia pipe)	10.00	Nos	304.05	3040.50

35	Providing and fixing white vitreous china battery based infrared sensor operated urinal of approx. size 610 x 390 x 370 mm having pre & post flushing with water (250 ml & 500 ml consumption), having water inlet from back side, including fixing to wall with suitable brackets all as per manufacturers specification and direction of Engineer-in-charge.	5	Nos	7979.20	39896.00
36	Providing and fixing floor mounted, white vitreous china single piece, double traps syphonic water closet of approved brand/make, shape, size and pattern including integrated white vitreous china cistern of capacity 10 litres with dual flushing system, including all fittings and fixtures with seat cover, cistern fittings, nuts, bolts and gasket etc including making connection with the existing P/S trap, complete in all respect as per directions of Engineer-in-Charge.	2	Nos	18212.90	36425.80
37	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. Concealed work, including cutting chases and making good the walls etc.				
37.1	15 mm nominal dia Pipes	20.00	mtr	497.80	9956.00
37.2	20 mm nominal dia Pipes	38.00	mtr	537.60	20428.80
38	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :				
38.1	20 mm nominal bore	6	each	539.95	3239.70
39	Providing and fixing uplasticised PVC connection pipe with brass unions :				
39.1	30 cm length				
39.1.1	15 mm nominal bore	13	Nos	85.00	1105.00

40	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, IS : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	1000.00	per lit	11.00	11000.00
41	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms.				
41.1	15 mm nominal bore	1.00	each	798.95	798.95
42	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931				
42.1	15mm nominal bore	8	Nos	574.30	4594.40
43	Providing and fixing C.P. Brass extension nipple (size 15mmx50mm) of approved make and quality as per direction of Engineer-in-charge.	2	Nos	74.80	149.60
	Total of DSR items				**2153632.67**
	Add cost index @ (140-107)/107=30.84% on DSR 2023 items.			30.84%	664180.32
	Total (A)				**2817812.99**
44	Providing and fixing MAC ROLLER BLINDS OASIS (BLACKOUT): Fabric made up of 100% Polyester with acrylic coated (PVC free) of thickness: 0.45mm, Weight :330 gsm, Fabric width : 250 cm, Degree of opacity 100%.Mechanism : Roller tube shall be of extruded aluminium alloy 48mm O.D. with a minimum wall thickness of 1.0mm duly anodised for long life. It shall be designed to accommodate spring clutch and gear system. Spring clutch with gear shall be provided for finger-touch raising and lowering of the blind. Clutch shall be wrap spring design with high strength fibreglass reinforced polyester assembly and high carbon steel springs to transmit motion from driving to driven members of clutch mechanism. Clutch shall be crash proof, prevent slippage and shall raise and lower smoothly to any desired height. Clutch never needs adjustment. Idler shall be of high strength fibreglass reinforced polyester, consisting of an outside sleeve and centre shaft. Sleeve	66.00	sqm	3485.45	230039.70

	shall provide bearing surface for roller tube and rotate freely on centre shaft, providing smooth, quiet and long wearing operation. Installation bracket shoild be tomized steel powder coated to give superior finish. Bracket shall accommodate overhead, side or face mounting with clutch assembly on either end of roller.Bottom of blind shall be provided with aluminium tube/rail powder coated. The fabric be enclosed in the suitably created pocket along with the tube/rail. The tube/rail shall be closed from sides with end caps to give a neat look.				
45	Providing and fixing health faucet with 1 m long flexible tube and wall hook including all fittings Make Modle no. K--98100IN-CP of kohler/ Jaquar Cat. No. ALD-CHR-577/ equivalent model of Roca all complete.	2	Nos	1916.95	3833.90
46	Providing and fixing C.P. brass 15 mm nominal bore two way bib cock Make Kohler K-25432IN-4-CP Jaquar Cat. No. KUP-CHR-35041PM or equivalent model of Roca all complete.	2	Nos	2858.50	5717.00
47	Providing and fixing SWR pipe conforming to IS:13592 Type B including all fittings, e.g. couplings, tees, bends with or without access door, trap of self cleansing design, reducers and screwed adoptors jointing with solvent cement joint as per manufacturers' recommendations including all fittings complete in all respect. [for Soil & Waste Pipes)				
47.1	110 mm OD	41.00	metre	450.00	18450.00
48	Providing Supplying and fixing Vinyl display boards in wall, made up to 3 mm thick aluminium composite pannel, face to be fully covered with blue Vinyl PVC sheeting, and computerised cutting white Vinyl letters in Hindi and English language as required, fixing with ss star screw, back side cover by 6 mm thick water proof ply etc complete.	800.00	sq in.	2.35	1883.60
49	Dismantling urinal of all sizes including disposal of dismantled materials i/c malba all complete as per directions of Engineer-in-Charge.	5	Nos	27.00	135.00

50	Deduct for the credit on account of cost of dismantled unserviceable material/articles including removal and disposal from the site (the dismantled unservisable material shall become the contractors property), cleaning the site all compleate as per direction of engineer in charge.				
50.1	G.I. Pipe	22.00	mtr	70.05	1541.10
51	Providing and fixing 12 mm thick frameless toughened glass partition system of Saint Gobain make, including fine edge polish, all fittings & silicon sealent as along with necessary holes etc. for fixing required top & bottom pivot patch ,PT 24 DI top pivot 3 mm with fixing plate & partition fittings etc. all complete as per Engineer-in-charge. All fittings, fixing arrangements (in SS base rail, wall connector, clamp, EPDM Gasket, Screw etc.) and installation, material, making holes, dash fastners etc. are included in this item.				
51.1	12 mm thick toughened frosted glass partitions frameless.	95.00	sqm	6871.35	652778.25
52	Providing and fixing 12 mm thick frameless toughened glass partition system of Saint Gobain make, including fine edge polish, all fittings & silicon sealent as along with necessary holes etc. for fixing required top & bottom pivot patch ,PT 24 DI top pivot 3 mm with fixing plate & partition fittings etc. all complete as per Engineer-in-charge. All fittings, fixing arrangements (in SS base rail, wall connector, clamp, EPDM Gasket, Screw etc.) and installation, material, making holes, dash fastners etc. are included in this item.				
52.1	12 mm thick plain toughened glass partitions frameless.	124.00	sqm	6521.35	808647.40
53	providing and fixing Manually operated Sliding doors with bottom rail /section of Aluminum extrusion with natural anodized, make Jinadal/Hindalco including Saint Gobain make 12 mm clear toughened / frosted glass as per site application including all fixture,all	25.00	sqm	15748.60	393715.00

	complete as per direction of the Engineer-in-Charge.(Door handle, lock and stopper etc.to be paid separately).				
54	Providing and fixing 12 mm thick frameless toughened frosted glass door shutter of approved make of saint Gobain brand and manufacture, including providing and fixing top & bottom pivot patch & spring type fixing arrangement and making necessary holes etc. for fixing required door fittings, all complete as per direction of Engineer-incharge (Door handle, lock and stopper etc.to be paid separately).	8.00	sqm	11284.35	90274.83
55	Providing and fixing floor spring with adjustable spring strength Size EN 1 - 4, closing speed with standard spindle and cover plate.featuring hydraulically fully controlled closing cycle and backcheck, including upto box and adjustable closing speed from 175°, Hold open at 90°, Conforming to EN 1154 and CE marked. Durability: 500,000 Cycles, Finish: Satin stainless steel etc. complete as per the direction of Engineer-in-charge.	4.00	nos	9133.90	36535.60
56	Providing and fixing pull Handle (in pair) or equivalent back to back with 350mm CTC, adjustable fixing for glass, wood and metal doors in satin stainless steel. The pull handles should have supporting washer with raised bevelling on the outer surface. Length =450mm, 25mm dia, -SS316 etc. complete as per the direction of Engineer-in-charge.	15	nos	4078.00	61170.00
57	Providing and fixing Satin SS Universal Corner Lock Patch with LKP & EPC and Strike Plate of (Model US10 STD, F700 or Equivelant) conforming to IS : 6315, having brand logo embossed on the body etc. complete as per the direction of Engineer-in-charge.	3	nos	6017.80	18053.40
	Total (B)				2322774.78

	Furniture work				
	Providing, assembling and placing of Fresh Water Lab Furniture Solution				
1	Providing and supply of C-Frames manufactured from standard hollow metal sections; confirming to I.S. Code 7138:1973 (Indian Standard specification for steel tubes for furniture) and all sheet metal components to be of CRCA confirming to IS Code 513:1994. The suspended under-bench welded units shall be supported on heavy-duty steel frames fully carrying the load of worktops.. Its superior strength is combined with aesthetically appealing end caps shall give maximum flexibility and modularity while making a layout. C-frame shall be constructed from a rectangular pipe with a cross section of 60mm x 30mm and shall be 2 mm thick and shall be without a vertical front leg to give a clean look. The C-frame legs shall be supplied with adjustable feet (tolerance from -5mm to+20mm) to correct the unevenness of flooring. The tubular enclosed type construction shall discourage dust accumulation and unwanted development of bacteria & fungus. Drainage gradient shall be well adjusted throughout the length of table and shall have horizontal supports for drainage systems. The structure shall have a removable back panel to provide access for maintenance throughout the length of table. The C-frame shall also have skirting at back bottom side. The C-frame shall be suitable for sitting and standing nominal heights of 900mm respectively. The nominal table depths shall be 1540mm for Island tables. All frame-work is to be pre-treated with superior pure epoxy powder coated finish.				
	Providing and supply of Horizontal Members : These shall be made from rectangular pipes of 2mm thickness. Cross-sectional dimensions of the pipe should be 60 x 30 x 2 mm. They shall be made of CRCA MS and coated with pure epoxy powder. These connect two C-Frames together as shown using C-clamps/U-clamps. Together with the C-Frames and Horizontal Members connected together, the skeletal structure of the work-bench is formed on which the worktop can be placed and the hanging-type storage cabinets can be suspended. Horizontal Members determine the width of the lab workbench as they form the member (distance)				

	between two adjacent C-Frames. They shall be available in various widths of 750mm, 1500mm, 1200mm As per layout				
	Providing and supply of Panels: All other panels used as End cover of the tables in case of Island tables to cover the space between two tables or between the table and the wall. The cover panels to be made of 1.0 mm thick CRCA sheet as per IS Code 513:1994				
	Providing and supply of Welded Cabinets : Under bench Suspended cabinets shall be flush face construction with doors and drawers in the same plane as the cabinet face frame, without overlap. The MOC: MS CRCA: IS – 513 (1994). Thickness: LH/RH side panels, shutter front, Bottom panel, Top front, Drawer separator, shelf, Alignment channel shall be of 1.2mm thk. Removable Back panel, Shutter cover, Fr. Rack strip, Top cover panel shall be of 0.8mmthk. Finish: Powder coating pure epoxy, thickness 40-50 microns Handle: Anodized Aluminium Finish handles (D-Type or Recess-Type) Lock: Units have a locking facility with 180 deg. and 10 lever cam lock mechanism (except for sink and corner unit). Hinge: SS 304 knuckle barrel Hinge of thickness 2.5mm and opening angle 180 deg. Screw: SS 304. Ball Slide: High quality double extension drawers of 500mm Length (approved Make) (required only for drawer unit) Shutter is of twin type construction with sound dampening effect using profeel. Shutter cover is equipping with Bump on for sound dampening. Depth of the cabinets: 530mm. Width of units 600/750mm. Height 635mm				
	Providing and supply of Sink, Faucets & Accessories : Made up of 5 mm thick high density and elastic poly propylene with good resistance to organic solvents. Standard bowl size (L x W x D) is 500 x 400 x 300 mm. Faucet should be 1-way type faucet of approved make				
	Electrical Trunking Used for housing electrical switches and sockets, data and voice points, its top panel, bottom panel of the trunking should be made from 1.0 mm thick CRCA MS panel. It should be available in both, single sided and double sided configurations. It should be made				

	from CRCA MS with pure epoxy powder coating. The front surface that houses the electrical points should have a slope				
	Providing and supply of Granite Work Top : It shall be 19mm (+/- 2mm) thick Jet Black Granite worktop. The exposed edges of the worktop shall be chamfered and smoothened. The bottom of the worktop shall be polished and there shall be a V-groove throughout the length of the exposed edges to protect the cabinets from coming in contact with the spillages. The overhang on the storage cabinet is 25 mm at the front side and 30 mm at the sides. The backing material used is a neoprene mat of 6 mm thickness.				
	Spot Extractor General description - Extractor arms mainly for use in chemical environments, where an extended resistance against chemical substances is a demand. All aluminium parts should have a double anodized surface protection Arm sections – Thin walled anodized aluminium sections with a very good corrosion resistance. Swivel – Swivel with 360 degree rotation. Add reduction for correct connection diameter. Joints – The adjustment knobs on the friction joints should be supported by ball-bearings. The first joint should be supported by a spring (not Ø100-1200). 360 degree rotation where indicated. Mini hood – The Mini hood should be supplied together with the arm and is also interface to the multi-purpose and metal hood. Mounting – The arms can be mounted on ceilings, walls and floors or fixed to tables. By using an extension profile the arm's operational reach must be increased. Other – All the arms should be provided with dampers, tight down to an under pressure of 3500 Pa. Air temperature -10℃ to 70℃. Material recovery: 99% by weight. Components to be provided: Spot Extractor arm, Bracket for Spot Fume Extractor, Multi-purpose hood (380mm x 460mm), Aluminium Extension Profile 1100mm Length, Reducer 75-80 FR Spot Fume				
	Eyewash GENERAL - Provide emergency eye, eye/face wash, safety stations and drench hose units with spray-type outlet heads to deliver a soft, wide, high volume spray of water. Outlet heads should have an internal self-regulating flow control, a reticulated polyurethane filter, a threaded spray cover and a hinged swing-away dust cover. Hinged cover should be permanently				

	attached to outlet head body with a stainless steel pin. All wearing components should be located inside spray head for ease of service. All emergency eye wash and shower equipment should be third-party certified to comply with ANSI Z358.1-2009.				
	OEM Should Have SEFA Membership Certificates for Last four years on a continuous basis. Welded Cabinets should be tested for SEFA 8M from SEFA approved Lab and should be listed in SEFA's website also should be tested for EN 14727 by NABL approved Lab. And, adaptable work bench should be tested for SEFA 10 by SEFA approved Lab and should be listed in SEFA's website and also should be tested for EN 13150 by NABL approved Lab. The bidder/parent company should possess the key professional staff, at least one, in his organization with good knowledge of codes and standards like SEFA, OSHA, EN 14175, ASHRAE 110 and NFPA 45. Such professionals should have a valid membership of SEFA and in addition membership of any of the international governing standards.and as per the direction of Engineer-In-Charge.				
1.1	**Providing, assembling and placing of Wall bench (1830mmW * 750mmD* 800mmH) with Storage cabinet.**	1.00	each	94757.55	94757.55
1.2	**Providing, assembling and placing of Wall bench (2880mmW * 900mmD* 800mmH) with Storage cabinet and Sink Unit and Spot Extractor.**	1.00	each	309954.84	309954.84
1.3	**Providing, assembling and placing of SS Emergency Shower.**	1.00	each	78142.33	78142.33

2	Superstructure Frame – It should be a free-standing rigid panel structure of steel (G.I.) Interior Walls - Double wall ends, not more than 6" wide, should be provided to maximize interior working area. The area between the double wall ends should be closed to house the remote control valves. Cut-outs should be provided inside the fume hood for service line accessibility. The same to have a cover with a fastener free design. The vertical fascias shall contain the required service controls, electrical switches and receptacles. Airfoil - A streamlined airfoil should be integral at the bottom of the hood opening on bench and distillation hoods. This foil shall provide a nominal 20mm open space between the foil and the top front edge of the work surface to direct an air stream across the work surface to prevent back flow of air. The sash should be provided with a separate handle which also provides for air flow when in completely closed position. The foil should be of 1.2mm steel to resist denting and flexing. Baffles - A stable, non-adjustable baffle with a single slot on the back baffle to aid in distributing the flow of air into and through the hood. The baffle should be spaced out from the back liner and should be removable for cleaning.				
	Duct Collar - A 8"-10" diameter polyethylene funnel shaped rectangular duct collar should be located in the top of the hood plenum chamber. Lighting- Two CFL tubes of 40 watts each should be provided in the fume hood. The lighting fixture should be completely outside the fume hood area. Sash - A combination sash should be provided. The sash should have horizontal sliding glass panels in a vertical rising steel frame. The bottom of the sash frame should have a full length metal handle. The sash track has minimum protrusion to avoid any kind of turbulence. The sash should be counterbalanced with a weights to prevent tilting and binding during operation. The glass panels should be 5mm toughened glass mounted in an levelled channel with roller for smooth operation.				

	Plumbing Services - Utility services like Vacuum, Nitrogen, Compressed Air & Raw water (as per Schedule of Quantity) shall consist of remote control valves as selected located within the end panels, controlled by in and out facility with flexible hose passing through the side panels of the hood, with color coded plastic handles. Interior fitting for gases and water should be with powder coated brass. All gas valves for regular lab gases to have standard needle valve and push and turn type arrangement for all burning gases should be supplied. All supplied valves to clear the following pressure test conditions: Gas Fittings – 7 bar, Water fittings – 10 bar. Electrical Services – The hood superstructure should be fully wired and should have a control box with MCB blower starter all safety devices like trip etc. Inlet should be of 3 phase power supply and the whole electrical should be of plug and play type. It also has 4 nos. electrical sockets and switches of Northwest make (230V, 5/16 A, 50 Hz)Liner – Interior liner panels should be 6 mm thick Phenol resin based industrial laminate.Lattice Rod Assemblies - 12mm dia solid SS rods should be clamped with the PP clamps to form a lattice arrangement to hold the test samples and rotors within the fume hood.				
	Centrifugal Blower – Silent high efficiency remote blower consisting of continuous rating motor and chemical resistant impellar. The blower should be designed to give a face velocity at safe working height as per the international safe velocity norms. (ANSI/AIHA Z9.5). The blower body should be polypropylene UV treated, high density and chemical (corrosion) resistant and mounted on a metallic stand. Ducting – Rigid Ducting of PP (Polypropylene) + FRP (Fibre Reinforced Polyester) and flexible ducting with flanges, bends, damper transitions, clamps etc. Flexible joint should be provided in the ducting in order to avoid transmitting the blower vibrations to the hood. A weather proof rain cowl is provided at the outlet of blower.				

	Base Cabinets – Fume hoods are designed to rest on a bench (high base stand, pedestal or a cabinet) which is a complete rigid steel structure. Gauge of steel used in its construction should be 0.8 mm GI for apparatus storages. An FRV mould should be inserted inside the cabinet wherever acid storages are required (as per BOQ requirement). Ceiling Enclosures - Use to enclose space between front top and ceiling of Concept fume hood superstructure also provides enclosure for raised sash.Transition – Used to connect fume hood with ducting. They are designed to reduce the static pressure and are made up of Poly- propylene of 6 mm thickness. Work Surface – Standard hood work surface should be 18mm thick jet black granite made in the form of a watertight pan, not less than 7 mm deep to contain spillage. Worktop will have oval shaped 102 mm X 175 mm 'PP' Cup-Sink for drainage. Top should be manufactured at the same manufacturing location as the fume hood to assure proper cut-out alignment and coordinated shipping. The work surface and cup drain should be available in black.				
	OEM Should Have SEFA Membership Certificates for Last four years on a continuous basis and as per the direction of Engineer-In-Charge.				
2.1	**Providing, assembling and placing of Aeolus Fumehood Assembly As per Layout**	1.00	each	910951.31	910951.31
	Providing, assembling and placing of Waste Water Lab Furniture Solution				
3	Providing and supply of C-Frames manufactured from standard hollow metal sections; confirming to I.S. Code 7138:1973 (Indian Standard specification for steel tubes for furniture) and all sheet metal components to be of CRCA confirming to IS Code 513:1994. The suspended under-bench welded units shall be supported on heavy-duty steel frames fully carrying the load of worktops.. Its superior strength is combined with aesthetically appealing end caps shall give maximum flexibility and modularity while making a layout. C-frame shall be constructed from a rectangular pipe with a cross section of 60mm x 30mm and shall be 2 mm thick and shall be without a vertical front leg to give a clean look. The C-frame legs shall be supplied				

	with adjustable feet (tolerance from -5mm to +20mm) to correct the unevenness of flooring. The tubular enclosed type construction shall discourage dust accumulation and unwanted development of bacteria & fungus. Drainage gradient shall be well adjusted throughout the length of table and shall have horizontal supports for drainage systems. The structure shall have a removable back panel to provide access for maintenance throughout the length of table. The C-frame shall also have skirting at back bottom side. The C-frame shall be suitable for sitting and standing nominal heights of 900mm respectively. The nominal table depths shall be 1540mm for Island tables. All frame-work is to be pre-treated with superior pure epoxy powder coated finish.				
	Providing and supply of Horizontal Members : These shall be made from rectangular pipes of 2mm thickness. Cross-sectional dimensions of the pipe should be 60 x 30 x 2 mm. They shall be made of CRCA MS and coated with pure epoxy powder. These connect two C-Frames together as shown using C-clamps/U-clamps. Together with the C-Frames and Horizontal Members connected together, the skeletal structure of the work-bench is formed on which the worktop can be placed and the hanging-type storage cabinets can be suspended. Horizontal Members determine the width of the lab workbench as they form the member (distance) between two adjacent C-Frames. They shall be available in various widths of 750mm, 1500mm, 1200mm As per layout				
	Providing and supply of Panels: All other panels used as End cover of the tables in case of Island tables to cover the space between two tables or between the table and the wall. The cover panels to be made of 1.0 mm thick CRCA sheet as per IS Code 513:1994				
	Providing and supply of Welded Cabinets : Under bench Suspended cabinets shall be flush face construction with doors and drawers in the same plane as the cabinet face frame, without overlap. The MOC: MS CRCA: IS – 513 (1994). Thickness: LH/RH side panels, shutter front, Bottom panel, Top front, Drawer separator, shelf, Alignment channel shall be of 1.2mm thk. Removable Back panel, Shutter cover, Fr. Rack strip, Top cover panel shall be of 0.8mmthk. Finish: Powder coating pure epoxy,				

	thickness 40-50 microns Handle: Anodized Aluminium Finish handles (D-Type or Recess-Type) Lock: Units have a locking facility with 180 deg. and 10 lever cam lock mechanism (except for sink and corner unit). Hinge: SS 304 knuckle barrel Hinge of thickness 2.5mm and opening angle 180 deg. Screw: SS 304. Ball Slide: High quality double extension drawers of 500mm Length (approved Make) (required only for drawer unit) Shutter is of twin type construction with sound dampening effect using profeel. Shutter cover is equipping with Bump on for sound dampening. Depth of the cabinets: 530mm. Width of units 600/750mm. Height 635mm				
	Providing and supply of Sink, Faucets & Accessories : Made up of 5 mm thick high density and elastic poly propylene with good resistance to organic solvents. Standard bowl size (L x W x D) is 500 x 400 x 300 mm. Faucet should be 1-way type faucet of approved make				
	Electrical Trunking Used for housing electrical switches and sockets, data and voice points, its top panel, bottom panel of the trunking should be made from 1.0 mm thick CRCA MS panel. It should be available in both, single sided and double sided configurations. It should be made from CRCA MS with pure epoxy powder coating. The front surface that houses the electrical points should have a slope				
	Providing and supply of Granite Work Top : It shall be 19mm (+/- 2mm) thick Jet Black Granite worktop. The exposed edges of the worktop shall be chamfered and smoothened. The bottom of the worktop shall be polished and there shall be a V-groove throughout the length of the exposed edges to protect the cabinets from coming in contact with the spillages. The overhang on the storage cabinet is 25 mm at the front side and 30 mm at the sides. The backing material used is a neoprene mat of 6 mm thickness.				

	Spot Extractor General description - Extractor arms mainly for use in chemical environments, where an extended resistance against chemical substances is a demand. All aluminium parts should have a double anodized surface protection Arm sections – Thin walled anodized aluminium sections with a very good corrosion resistance. Swivel – Swivel with 360 degree rotation. Add reduction for correct connection diameter. Joints – The adjustment knobs on the friction joints should be supported by ball-bearings. The first joint should be supported by a spring (not Ø100-1200). 360 degree rotation where indicated. Mini hood – The Mini hood should be supplied together with the arm and is also interface to the multi-purpose and metal hood. Mounting – The arms can be mounted on ceilings, walls and floors or fixed to tables. By using an extension profile the arm's operational reach must be increased. Other – All the arms should be provided with dampers, tight down to an under pressure of 3500 Pa. Air temperature - 10℃ to 70℃. Material recovery: 99% by weight. Components to be provided: Spot Extractor arm, Bracket for Spot Fume Extractor, Multi-purpose hood (380mm x 460mm), Aluminium Extension Profile 1100mm Length, Reducer 75-80 FR Spot Fume				
	OEM Should Have SEFA Membership Certificates for Last four years on a continuous basis. Welded Cabinets should be tested for SEFA 8M from SEFA approved Lab and should be listed in SEFA's website also should be tested for EN 14727 by NABL approved Lab. And, adaptable work bench should be tested for SEFA 10 by SEFA approved Lab and should be listed in SEFA's website and also should be tested for EN 13150 by NABL approved Lab. The bidder/parent company should possess the key professional staff, at least one, in his organization with good knowledge of codes and standards like SEFA, OSHA, EN 14175, ASHRAE 110 and NFPA 45. Such professionals should have a valid membership of SEFA and in addition membership of any of the international governing standards.				
3.1	**Providing, assembling and placing of Wall bench (3650mmW * 750mmD* 800mmH) with Storage cabinet.**	1.00	each	160000.29	160000.29
3.2	**Providing, assembling and placing of Wall bench (1380mmW * 750mmD* 800mmH)**	1.00	each	77269.95	77269.95

	with Storage cabinet.				
3.3	**Providing, assembling and placing of Island bench (3070mmW * 1540mmD* 900mmH) with Storage cabinet and Sink Unit and Spot Extractor.**	1.00	each	513146.19	513146.19
	Providing, assembling and placing of Bio Lab Furniture Solution				
4	Providing and supply of C-Frames manufactured from standard hollow metal sections; confirming to I.S. Code 7138:1973 (Indian Standard specification for steel tubes for furniture) and all sheet metal components to be of CRCA confirming to IS Code 513:1994. The suspended under-bench welded units shall be supported on heavy-duty steel frames fully carrying the load of worktops.. Its superior strength is combined with aesthetically appealing end caps shall give maximum flexibility and modularity while making a layout. C-frame shall be constructed from a rectangular pipe with a cross section of 60mm x 30mm and shall be 2 mm thick and shall be without a vertical front leg to give a clean look. The C-frame legs shall be supplied with adjustable feet (tolerance from -5mm to +20mm) to correct the unevenness of flooring. The tubular enclosed type construction shall discourage dust accumulation and unwanted development of bacteria & fungus. Drainage gradient shall be well adjusted throughout the length of table and shall have horizontal supports for drainage systems. The structure shall have a removable back panel to provide access for maintenance throughout the length of table. The C-frame shall also have skirting at back bottom side. The C-frame shall be suitable for sitting and standing nominal heights of 900mm respectively. The nominal table depths shall be 1540mm for Island tables. All frame-work is to be pre-treated with superior pure epoxy powder coated finish.				
	Providing and supply of Horizontal Members : These shall be made from rectangular pipes of 2mm thickness. Cross-sectional dimensions of the pipe should be 60 x 30 x 2 mm. They shall be made of CRCA MS and coated with pure epoxy powder. These connect two C-Frames together as shown using C-clamps/U-clamps. Together with the C-Frames and Horizontal Members connected together, the skeletal				

	structure of the work-bench is formed on which the worktop can be placed and the hanging-type storage cabinets can be suspended. Horizontal Members determine the width of the lab workbench as they form the member (distance) between two adjacent C-Frames. They shall be available in various widths of 750mm, 1500mm, 1200mm As per layout				
	Providing and supply of Panels: All other panels used as End cover of the tables in case of Island tables to cover the space between two tables or between the table and the wall. The cover panels to be made of 1.0 mm thick CRCA sheet as per IS Code 513:1994				
	Providing and supply of Welded Cabinets : Under bench Suspended cabinets shall be flush face construction with doors and drawers in the same plane as the cabinet face frame, without overlap. The MOC: MS CRCA: IS – 513 (1994). Thickness: LH/RH side panels, shutter front, Bottom panel, Top front, Drawer separator, shelf, Alignment channel shall be of 1.2mm thk. Removable Back panel, Shutter cover, Fr. Rack strip, Top cover panel shall be of 0.8mmthk. Finish: Powder coating pure epoxy, thickness 40-50 microns Handle: Anodized Aluminium Finish handles (D-Type or Recess-Type) Lock: Units have a locking facility with 180 deg. and 10 lever cam lock mechanism (except for sink and corner unit). Hinge: SS 304 knuckle barrel Hinge of thickness 2.5mm and opening angle 180 deg. Screw: SS 304. Ball Slide: High quality double extension drawers of 500mm Length (approved Make) (required only for drawer unit) Shutter is of twin type construction with sound dampening effect using profeel. Shutter cover is equipping with Bump on for sound dampening. Depth of the cabinets: 530mm. Width of units 600/750mm. Height 635mm				
	Providing and supply of Sink, Faucets & Accessories : Made up of 5 mm thick high density and elastic poly propylene with good resistance to organic solvents. Standard bowl size (L x W x D) is 500 x 400 x 300 mm. Faucet should be 1-way type faucet of approved make				
	Electrical Trunking Used for housing electrical switches and sockets, data and voice points, its top panel, bottom panel of the trunking should be made from 1.0 mm thick CRCA MS panel. It should be available in both, single sided and				

	double sided configurations. It should be made from CRCA MS with pure epoxy powder coating. The front surface that houses the electrical points should have a slope				
	Providing and supply of Granite Work Top : It shall be 19mm (+/- 2mm) thick Jet Black Granite worktop. The exposed edges of the worktop shall be chamfered and smoothened. The bottom of the worktop shall be polished and there shall be a V-groove throughout the length of the exposed edges to protect the cabinets from coming in contact with the spillages. The overhang on the storage cabinet is 25 mm at the front side and 30 mm at the sides. The backing material used is a neoprene mat of 6 mm thickness.				
	OEM Should Have SEFA Membership Certificates for Last four years on a continuous basis. Welded Cabinets should be tested for SEFA 8M from SEFA approved Lab and should be listed in SEFA's website also should be tested for EN 14727 by NABL approved Lab. And, adaptable work bench should be tested for SEFA 10 by SEFA approved Lab and should be listed in SEFA's website and also should be tested for EN 13150 by NABL approved Lab. The bidder/parent company should possess the key professional staff, at least one, in his organization with good knowledge of codes and standards like SEFA, OSHA, EN 14175, ASHRAE 110 and NFPA 45. Such professionals should have a valid membership of SEFA and in addition membership of any of the international governing standards.				
4.1	**Providing, assembling and placing of Wall bench (2280mmW * 900mmD* 800mmH) with Storage cabinet and sink Unit.**	2.00	each	161790.26	323580.53
	Providing, assembling and placing of Air Lab Furniture Solution				
5	Providing and supply of C-Frames manufactured from standard hollow metal sections; confirming to I.S. Code 7138:1973 (Indian Standard specification for steel tubes for furniture) and all sheet metal components to be of CRCA confirming to IS Code 513:1994. The suspended under-bench welded units shall be supported on heavy-duty steel frames fully carrying the load of worktops.. Its superior strength is combined with aesthetically appealing end caps shall give				

	maximum flexibility and modularity while making a layout. C-frame shall be constructed from a rectangular pipe with a cross section of 60mm x 30mm and shall be 2 mm thick and shall be without a vertical front leg to give a clean look. The C-frame legs shall be supplied with adjustable feet (tolerance from -5mm to +20mm) to correct the unevenness of flooring. The tubular enclosed type construction shall discourage dust accumulation and unwanted development of bacteria & fungus. Drainage gradient shall be well adjusted throughout the length of table and shall have horizontal supports for drainage systems. The structure shall have a removable back panel to provide access for maintenance throughout the length of table. The C-frame shall also have skirting at back bottom side. The C-frame shall be suitable for sitting and standing nominal heights of 900mm respectively. The nominal table depths shall be 1540mm for Island tables. All frame-work is to be pre-treated with superior pure epoxy powder coated finish.				
	Providing and supply of Horizontal Members : These shall be made from rectangular pipes of 2mm thickness. Cross-sectional dimensions of the pipe should be 60 x 30 x 2 mm. They shall be made of CRCA MS and coated with pure epoxy powder. These connect two C-Frames together as shown using C-clamps/U-clamps. Together with the C-Frames and Horizontal Members connected together, the skeletal structure of the work-bench is formed on which the worktop can be placed and the hanging-type storage cabinets can be suspended. Horizontal Members determine the width of the lab workbench as they form the member (distance) between two adjacent C-Frames. They shall be available in various widths of 750mm, 1500mm, 1200mm As per layout				
	Providing and supply of Panels: All other panels used as End cover of the tables in case of Island tables to cover the space between two tables or between the table and the wall. The cover panels to be made of 1.0 mm thick CRCA sheet as per IS Code 513:1994				

	Providing and supply of Welded Cabinets : Under bench Suspended cabinets shall be flush face construction with doors and drawers in the same plane as the cabinet face frame, without overlap. The MOC: MS CRCA: IS – 513 (1994). Thickness: LH/RH side panels, shutter front, Bottom panel, Top front, Drawer separator, shelf, Alignment channel shall be of 1.2mm thk. Removable Back panel, Shutter cover, Fr. Rack strip, Top cover panel shall be of 0.8mmthk. Finish: Powder coating pure epoxy, thickness 40-50 microns Handle: Anodized Aluminium Finish handles (D-Type or Recess-Type) Lock: Units have a locking facility with 180 deg. and 10 lever cam lock mechanism (except for sink and corner unit). Hinge: SS 304 knuckle barrel Hinge of thickness 2.5mm and opening angle 180 deg. Screw: SS 304. Ball Slide: High quality double extension drawers of 500mm Length (approved Make) (required only for drawer unit) Shutter is of twin type construction with sound dampening effect using profeel. Shutter cover is equipping with Bump on for sound dampening. Depth of the cabinets: 530mm. Width of units 600/750mm. Height 635mm				
	Providing and supply of Sink, Faucets & Accessories : Made up of 5 mm thick high density and elastic poly propylene with good resistance to organic solvents. Standard bowl size (L x W x D) is 500 x 400 x 300 mm. Faucet should be 1-way type faucet of approved make				
	Electrical Trunking Used for housing electrical switches and sockets, data and voice points, its top panel, bottom panel of the trunking should be made from 1.0 mm thick CRCA MS panel. It should be available in both, single sided and double sided configurations. It should be made from CRCA MS with pure epoxy powder coating. The front surface that houses the electrical points should have a slope				
	Providing and supply of Granite Work Top : It shall be 19mm (+/- 2mm) thick Jet Black Granite worktop. The exposed edges of the worktop shall be chamfered and smoothened. The bottom of the worktop shall be polished and there shall be a V-groove throughout the length of the exposed edges to protect the cabinets from coming in contact with the spillages. The overhang on the storage cabinet is 25 mm at the front side and 30 mm at the sides. The backing				

	material used is a neoprene mat of 6 mm thickness.				
	OEM Should Have SEFA Membership Certificates for Last four years on a continuous basis. Welded Cabinets should be tested for SEFA 8M from SEFA approved Lab and should be listed in SEFA's website also should be tested for EN 14727 by NABL approved Lab. And, adaptable work bench should be tested for SEFA 10 by SEFA approved Lab and should be listed in SEFA's website and also should be tested for EN 13150 by NABL approved Lab. The bidder/parent company should possess the key professional staff, at least one, in his organization with good knowledge of codes and standards like SEFA, OSHA, EN 14175, ASHRAE 110 and NFPA 45. Such professionals should have a valid membership of SEFA and in addition membership of any of the international governing standards.				
5.1	**Providing, assembling and placing of Wall bench (3540mmW *750mmD* 800mmH) with Storage cabinet and sink Unit.**	1.00	each	194720.16	194720.16
6	**Providing, assembling and placing of AAS Lab Furniture Solution**				
	Providing and supply of C-Frames manufactured from standard hollow metal sections; confirming to I.S. Code 7138:1973 (Indian Standard specification for steel tubes for furniture) and all sheet metal components to be of CRCA confirming to IS Code 513:1994. The suspended under-bench welded units shall be supported on heavy-duty steel frames fully carrying the load of worktops.. Its superior strength is combined with aesthetically appealing end caps shall give maximum flexibility and modularity while making a layout. C-frame shall be constructed from a rectangular pipe with a cross section of 60mm x 30mm and shall be 2 mm thick and shall be without a vertical front leg to give a clean look. The C-frame legs shall be supplied with adjustable feet (tolerance from -5mm to +20mm) to correct the unevenness of flooring. The tubular enclosed type construction shall discourage dust accumulation and unwanted development of bacteria & fungus. Drainage gradient shall be well adjusted throughout the length of table and shall have horizontal supports for drainage systems. The structure shall have a removable back panel to provide access for maintenance throughout the length of				

	table. The C-frame shall also have skirting at back bottom side. The C-frame shall be suitable for sitting and standing nominal heights of 900mm respectively. The nominal table depths shall be 1540mm for Island tables. All frame-work is to be pre-treated with superior pure epoxy powder coated finish.				
	Providing and supply of Horizontal Members : These shall be made from rectangular pipes of 2mm thickness. Cross-sectional dimensions of the pipe should be 60 x 30 x 2 mm. They shall be made of CRCA MS and coated with pure epoxy powder. These connect two C-Frames together as shown using C-clamps/U-clamps. Together with the C-Frames and Horizontal Members connected together, the skeletal structure of the work-bench is formed on which the worktop can be placed and the hanging-type storage cabinets can be suspended. Horizontal Members determine the width of the lab workbench as they form the member (distance) between two adjacent C-Frames. They shall be available in various widths of 750mm, 1500mm, 1200mm As per layout				
	Providing and supply of Panels: All other panels used as End cover of the tables in case of Island tables to cover the space between two tables or between the table and the wall. The cover panels to be made of 1.0 mm thick CRCA sheet as per IS Code 513:1994				
	Providing and supply of Welded Cabinets : Under bench Suspended cabinets shall be flush face construction with doors and drawers in the same plane as the cabinet face frame, without overlap. The MOC: MS CRCA: IS – 513 (1994). Thickness: LH/RH side panels, shutter front, Bottom panel, Top front, Drawer separator, shelf, Alignment channel shall be of 1.2mm thk. Removable Back panel, Shutter cover, Fr. Rack strip, Top cover panel shall be of 0.8mmthk. Finish: Powder coating pure epoxy, thickness 40-50 microns Handle: Anodized Aluminium Finish handles (D-Type or Recess-Type) Lock: Units have a locking facility with 180 deg. and 10 lever cam lock mechanism (except for sink and corner unit). Hinge: SS 304 knuckle barrel Hinge of thickness 2.5mm and opening angle 180 deg. Screw: SS 304. Ball Slide: High quality double extension drawers of 500mm Length (approved Make) (required only for drawer unit) Shutter is of twin type				

	construction with sound dampening effect using profeel. Shutter cover is equipping with Bump on for sound dampening. Depth of the cabinets: 530mm. Width of units 600/750mm. Height 635mm				
	Providing and supply of Sink, Faucets & Accessories : Made up of 5 mm thick high density and elastic poly propylene with good resistance to organic solvents. Standard bowl size (L x W x D) is 500 x 400 x 300 mm. Faucet should be 1-way type faucet of approved make				
	Electrical Trunking Used for housing electrical switches and sockets, data and voice points, its top panel, bottom panel of the trunking should be made from 1.0 mm thick CRCA MS panel. It should be available in both, single sided and double sided configurations. It should be made from CRCA MS with pure epoxy powder coating. The front surface that houses the electrical points should have a slope				
	Providing and supply of Granite Work Top : It shall be 19mm (+/- 2mm) thick Jet Black Granite worktop. The exposed edges of the worktop shall be chamfered and smoothened. The bottom of the worktop shall be polished and there shall be a V-groove throughout the length of the exposed edges to protect the cabinets from coming in contact with the spillages. The overhang on the storage cabinet is 25 mm at the front side and 30 mm at the sides. The backing material used is a neoprene mat of 6 mm thickness.				
	OEM Should Have SEFA Membership Certificates for Last four years on a continuous basis. Welded Cabinets should be tested for SEFA 8M from SEFA approved Lab and should be listed in SEFA's website also should be tested for EN 14727 by NABL approved Lab. And, adaptable work bench should be tested for SEFA 10 by SEFA approved Lab and should be listed in SEFA's website and also should be tested for EN 13150 by NABL approved Lab. The bidder/parent company should possess the key professional staff, at least one, in his organization with good knowledge of codes and standards like SEFA, OSHA, EN 14175, ASHRAE 110 and NFPA 45. Such professionals should have a valid membership of SEFA and in addition membership of any of the international governing standards.				

6.1	**Providing, assembling and placing of Wall bench (2280mmW *900mmD* 800mmH) with Storage cabinet.**	1.00	each	121107.32	121107.32
	Providing, assembling and placing of GC Lab Furniture Solution				
7	Providing and supply of C-Frames manufactured from standard hollow metal sections; confirming to I.S. Code 7138:1973 (Indian Standard specification for steel tubes for furniture) and all sheet metal components to be of CRCA confirming to IS Code 513:1994. The suspended under-bench welded units shall be supported on heavy-duty steel frames fully carrying the load of worktops.. Its superior strength is combined with aesthetically appealing end caps shall give maximum flexibility and modularity while making a layout. C-frame shall be constructed from a rectangular pipe with a cross section of 60mm x 30mm and shall be 2 mm thick and shall be without a vertical front leg to give a clean look. The C-frame legs shall be supplied with adjustable feet (tolerance from -5mm to +20mm) to correct the unevenness of flooring. The tubular enclosed type construction shall discourage dust accumulation and unwanted development of bacteria & fungus. Drainage gradient shall be well adjusted throughout the length of table and shall have horizontal supports for drainage systems. The structure shall have a removable back panel to provide access for maintenance throughout the length of table. The C-frame shall also have skirting at back bottom side. The C-frame shall be suitable for sitting and standing nominal heights of 900mm respectively. The nominal table depths shall be 1540mm for Island tables. All frame-work is to be pre-treated with superior pure epoxy powder coated finish.				
	Providing and supply of Horizontal Members : These shall be made from rectangular pipes of 2mm thickness. Cross-sectional dimensions of the pipe should be 60 x 30 x 2 mm. They shall be made of CRCA MS and coated with pure epoxy powder. These connect two C-Frames together as shown using C-clamps/U-clamps. Together with the C-Frames and Horizontal Members connected together, the skeletal structure of the work-bench is formed on which the worktop can be placed and the hanging-type storage cabinets can be suspended. Horizontal				

	Members determine the width of the lab workbench as they form the member (distance) between two adjacent C-Frames. They shall be available in various widths of 750mm, 1500mm, 1200mm As per layout				
	Providing and supply of Panels: All other panels used as End cover of the tables in case of Island tables to cover the space between two tables or between the table and the wall. The cover panels to be made of 1.0 mm thick CRCA sheet as per IS Code 513:1994				
	Providing and supply of Welded Cabinets : Under bench Suspended cabinets shall be flush face construction with doors and drawers in the same plane as the cabinet face frame, without overlap. The MOC: MS CRCA: IS – 513 (1994). Thickness: LH/RH side panels, shutter front, Bottom panel, Top front, Drawer separator, shelf, Alignment channel shall be of 1.2mm thk. Removable Back panel, Shutter cover, Fr. Rack strip, Top cover panel shall be of 0.8mmthk. Finish: Powder coating pure epoxy, thickness 40-50 microns Handle: Anodized Aluminium Finish handles (D-Type or Recess-Type) Lock: Units have a locking facility with 180 deg. and 10 lever cam lock mechanism (except for sink and corner unit). Hinge: SS 304 knuckle barrel Hinge of thickness 2.5mm and opening angle 180 deg. Screw: SS 304. Ball Slide: High quality double extension drawers of 500mm Length (approved Make) (required only for drawer unit) Shutter is of twin type construction with sound dampening effect using profeel. Shutter cover is equipping with Bump on for sound dampening. Depth of the cabinets: 530mm. Width of units 600/750mm. Height 635mm				
	Providing and supply of Sink, Faucets & Accessories : Made up of 5 mm thick high density and elastic poly propylene with good resistance to organic solvents. Standard bowl size (L x W x D) is 500 x 400 x 300 mm. Faucet should be 1-way type faucet of approved make				
	Electrical Trunking Used for housing electrical switches and sockets, data and voice points, its top panel, bottom panel of the trunking should be made from 1.0 mm thick CRCA MS panel. It should be available in both, single sided and				

	double sided configurations. It should be made from CRCA MS with pure epoxy powder coating. The front surface that houses the electrical points should have a slope				
	Providing and supply of Granite Work Top : It shall be 19mm (+/- 2mm) thick Jet Black Granite worktop. The exposed edges of the worktop shall be chamfered and smoothened. The bottom of the worktop shall be polished and there shall be a V-groove throughout the length of the exposed edges to protect the cabinets from coming in contact with the spillages. The overhang on the storage cabinet is 25 mm at the front side and 30 mm at the sides. The backing material used is a neoprene mat of 6 mm thickness.				
	OEM Should Have SEFA Membership Certificates for Last four years on a continuous basis. Welded Cabinets should be tested for SEFA 8M from SEFA approved Lab and should be listed in SEFA's website also should be tested for EN 14727 by NABL approved Lab. And, adaptable work bench should be tested for SEFA 10 by SEFA approved Lab and should be listed in SEFA's website and also should be tested for EN 13150 by NABL approved Lab. The bidder/parent company should possess the key professional staff, at least one, in his organization with good knowledge of codes and standards like SEFA, OSHA, EN 14175, ASHRAE 110 and NFPA 45. Such professionals should have a valid membership of SEFA and in addition membership of any of the international governing standards.				
7.1	**Providing, assembling and placing of Wall bench (1530mmW *750mmD* 800mmH) with Storage cabinet.**	1.00	each	84900.67	84900.67
	Providing, assembling and placing of EDXRF & Balance Lab Furniture Solution				
8	Providing and supply of C-Frames manufactured from standard hollow metal sections; confirming to I.S. Code 7138:1973 (Indian Standard specification for steel tubes for furniture) and all sheet metal components to be of CRCA confirming to IS Code 513:1994. The suspended under-bench welded units shall be supported on heavy-duty steel frames fully carrying the load of worktops.. Its superior strength is combined				

	with aesthetically appealing end caps shall give maximum flexibility and modularity while making a layout. C-frame shall be constructed from a rectangular pipe with a cross section of 60mm x 30mm and shall be 2 mm thick and shall be without a vertical front leg to give a clean look. The C-frame legs shall be supplied with adjustable feet (tolerance from -5mm to +20mm) to correct the unevenness of flooring. The tubular enclosed type construction shall discourage dust accumulation and unwanted development of bacteria & fungus. Drainage gradient shall be well adjusted throughout the length of table and shall have horizontal supports for drainage systems. The structure shall have a removable back panel to provide access for maintenance throughout the length of table. The C-frame shall also have skirting at back bottom side. The C-frame shall be suitable for sitting and standing nominal heights of 900mm respectively. The nominal table depths shall be 1540mm for Island tables. All frame-work is to be pre-treated with superior pure epoxy powder coated finish.				
	Providing and supply of Horizontal Members : These shall be made from rectangular pipes of 2mm thickness. Cross-sectional dimensions of the pipe should be 60 x 30 x 2 mm. They shall be made of CRCA MS and coated with pure epoxy powder. These connect two C-Frames together as shown using C-clamps/U-clamps. Together with the C-Frames and Horizontal Members connected together, the skeletal structure of the work-bench is formed on which the worktop can be placed and the hanging-type storage cabinets can be suspended. Horizontal Members determine the width of the lab workbench as they form the member (distance) between two adjacent C-Frames. They shall be available in various widths of 750mm, 1500mm, 1200mm As per layout				
	Providing and supply of Panels: All other panels used as End cover of the tables in case of Island tables to cover the space between two tables or between the table and the wall. The cover panels to be made of 1.0 mm thick CRCA sheet as per IS Code 513:1994				

	Providing and supply of Welded Cabinets : Under bench Suspended cabinets shall be flush face construction with doors and drawers in the same plane as the cabinet face frame, without overlap. The MOC: MS CRCA: IS – 513 (1994). Thickness: LH/RH side panels, shutter front, Bottom panel, Top front, Drawer separator, shelf, Alignment channel shall be of 1.2mm thk. Removable Back panel, Shutter cover, Fr. Rack strip, Top cover panel shall be of 0.8mmthk. Finish: Powder coating pure epoxy, thickness 40-50 microns Handle: Anodized Aluminium Finish handles (D-Type or Recess-Type) Lock: Units have a locking facility with 180 deg. and 10 lever cam lock mechanism (except for sink and corner unit). Hinge: SS 304 knuckle barrel Hinge of thickness 2.5mm and opening angle 180 deg. Screw: SS 304. Ball Slide: High quality double extension drawers of 500mm Length (approved Make) (required only for drawer unit) Shutter is of twin type construction with sound dampening effect using profeel. Shutter cover is equipping with Bump on for sound dampening. Depth of the cabinets: 530mm. Width of units 600/750mm. Height 635mm				
	Providing and supply of Sink, Faucets & Accessories : Made up of 5 mm thick high density and elastic poly propylene with good resistance to organic solvents. Standard bowl size (L x W x D) is 500 x 400 x 300 mm. Faucet should be 1-way type faucet of approved make				
	Electrical Trunking Used for housing electrical switches and sockets, data and voice points, its top panel, bottom panel of the trunking should be made from 1.0 mm thick CRCA MS panel. It should be available in both, single sided and double sided configurations. It should be made from CRCA MS with pure epoxy powder coating. The front surface that houses the electrical points should have a slope				
	Providing and supply of Granite Work Top : It shall be 19mm (+/- 2mm) thick Jet Black Granite worktop. The exposed edges of the worktop shall be chamfered and smoothened. The bottom of the worktop shall be polished and there shall be a V-groove throughout the length of the exposed edges to protect the cabinets from coming in contact with the spillages. The overhang on the storage cabinet is 25 mm at the front side and 30 mm at the sides. The backing				

	material used is a neoprene mat of 6 mm thickness.				
	Tubular frame - Completely modular type tubular frame, which carries the load of kadappa and granite, kept on it. High-tension Pan head M6 Zinc black-coated screws (for better corrosion resistance) are used for the fastening. The material used is: 40Sq x 1.6 mm thick ERW tube and the overall load carrying capacity of tubular frame is 250 kgs of uniform distributed load.				
	Cover Panels – They are 0.8 mm thick CRCA MS sheet and pre-treated and epoxy powder coated for better corrosion resistance. The thickness of powder coat is 45-50 microns which passes the test of Salt Spray for 1000 Hours and having the Scratch Hardness of 3 Kgs. Kadappa - 25mm thick Kadappa acts as the shock-dampening component. Work Surface – granite				
	Vibration Isolating Rubber pads - The objective of using these rubber pads is to absorb the pulsating vibrations coming from the floor .The pads are made up from combination of nitrite rubber, cork particles and cross linked polyester fiber. This high-grade compound material possesses all the physical and mechanical properties required to minimize the dampening effect.				
	Levelling screws - The Tubular frame has the provision for 4 height adjusters or Levelling Screws that take care of all levelling aspects.				
	OEM Should Have SEFA Membership Certificates for Last four years on a continuous basis. Welded Cabinets should be tested for SEFA 8M from SEFA approved Lab and should be listed in SEFA's website also should be tested for EN 14727 by NABL approved Lab. And, adaptable work bench should be tested for SEFA 10 by SEFA approved Lab and should be listed in SEFA's website and also should be tested for EN 13150 by NABL approved Lab. The bidder/parent company should possess the key professional staff, at least one, in his organization with good knowledge of codes and standards like SEFA, OSHA, EN 14175, ASHRAE 110 and NFPA 45. Such professionals should have a valid membership of SEFA and in addition membership of any of the international governing standards.				

8.1	**Providing, assembling and placing of Wall bench (1530mmW *750mmD* 800mmH) with Storage cabinet.**	1.00	each	84900.67	84900.67
8.2	**Providing, assembling and placing of Anti Vibration Table 900mm*600mm*900mm.**	3.00	each	47196.58	141589.74
	Providing, assembling and placing of Lab 4 Furniture Solution				
9	Resilience Storage cabinets are designed to safely store highly corrosive acids. With a full PP construction, the Resilience cabinets are completely protected from corrosion, making them the preferred choice in labs and workspaces dealing with aggressive chemicals. Resilience provides you with a storage solution that easily outperforms the metal and wooden storages. All safety claims of this product are backed by third party certification for Chemical Spot Test for 49 chemicals listed in SEFA standards and used across various industries. The cabinet has been designed to be fully ventilated ensuring air circulation and preventing a build-up of dangerous fumes within the cabinet. The shelves comprise of removable height adjustable collection trays that are leak-proof, enhancing the safety factor of the storage units. · Exhaust Provision: There is an air-duct at the back, inside the cabinet that effectively extracts fumes when connected to exhaust. Louvers are provided on the front doors to allow inward Low of fresh air. · Zero-Corrosion: Full Polypropylene Body, with no exposed metal hardware, ensures there is no corrosion · Closing mechanism: The cabinet has a latch to ensure proper shutting of the doors. · Removable & Height- Adjustable PP Trays as Shelves: the PP Collection Trays can be removed easily, and can be height-adjusted as required. · Load Bearing Capacity & Spill Containment: Each shelf can take up to 30 kgs (approx) of uniformly distributed load. The shelves are leak-proof and fully contain accidental spillages. · Locking Provision: The door has provision for using a padlock to safeguard the contents of the cabinet.				

	OEM Should Have SEFA Membership Certificates for Last four years on a continuous basis. Welded Cabinets should be tested for SEFA 8M from SEFA approved Lab and should be listed in SEFA's website also should be tested for EN 14727 by NABL approved Lab. And, adaptable work bench should be tested for SEFA 10 by SEFA approved Lab and should be listed in SEFA's website and also should be tested for EN 13150 by NABL approved Lab. The bidder/parent company should possess the key professional staff, at least one, in his organization with good knowledge of codes and standards like SEFA, OSHA, EN 14175, ASHRAE 110 and NFPA 45. Such professionals should have a valid membership of SEFA and in addition membership of any of the international governing standards.				
9.1	**Providing, assembling and placing of Resilience Chemical Storage W1000 x H1800 x D480.**	2.00	each	203268.48	406536.95
	Providing, assembling and placing of Sophisticated Lab Furniture Solution				
10	**1.Providing, assembling and placing of overhead storage size L-750xD-375xH-675 mm,openable shutters with glass =12 nos** (The construction should be the same as the under-bench cabinets. The height of these cabinets should be around 635mm while the depth should be around 340mm. The shutters should be available in two options: Metal shutters and Metal frame with inserted glass. There should be one height-adjustable shelf inside each cabinet. Other construction should be similar to under-bench cabinet). **2.Providing, assembling and placing of Lab Stool (Mechanical Height Adjustable revolving stool with Back and Hi Base)=12 nos.** (The seat is made up of 1.2cm thick flat plywood and with moulded polyurethane foam, and upholstered with synthetic leather covers. Seat size Dia 40cm, 360 degree revolving. Back Assembly foam is designed contoured lumbar support for extra comfort. Synthetic leather upholstery. Back size 45 cm. Five prong pedestal is fabricated from 0.2 cm thick HR Sheet, powder coated and fitted with injection moulded black polypropylene Hub Cap and 5 nos twin wheel castors. The pedestal is 55cm	1.00	each	288653.20	288653.20

	pitch circle diameter. Circular foot ring of 52cm made up of 1.9cm thick ERW tube for foot support. Twin wheel castors are injection moulded in Black Nylon. Width 650mm, Dept 650mm,height 880- 995mm) and as per the direction of Engineer-In-Charge.				
	Main Staff Hall				
11	**Providing, assembling and placing of L Shape Modular Workstation with Side unit (Main Table 1800mm*900mm*750mm & Side unit 900mm*600mm* 750mm) Including Pedestal, Keyboard tray and CPU Trolley.**	1.00	each	152961.36	152961.36
	a. Partition height: 1200 mm. b. Each workstation to be provided with Mobile pedestal (2 Drawer and one filing Cabinet) [Size: 400mm (W) x 560mm (D) x 560mm (H)], Keyboard pull-out tray and CPU trolley c. Panel thickness: Main Panel 52.4mmd. Panel components: i. 2 nos of vertical extrusion made of aluminum and coated with epoxy powder coating. ii. Horizontal extrusions made of aluminum and coated with epoxy powder coating at every division of tile/block. iii. Blocks made from composite construction of MDF and paper honeycomb. iv. One no. of fabricated bottom frame (comprising of L-channels, formed plates and steel tube welded together and coated with epoxy powder coating) as a welded structure of steel component. v. 1 nos of Plain metal bottom tiles made of 0.8mm thick MS CRCA Grade D as per IS: 513 vi. 2 nos of Pre-laminated intermediate tiles made of 9.0 to 9.5 mm thick pre-laminated particle board conforming to IS: 12823 having all its edges with minimum 0.5 mm thick PVC edging vii. 1 nos of Fabric magnetic top tiles (fabric upholstered metal tiles in 0.6 mm thick G.I. Grade O as per IS: 277. The fabric upholstered with adhesives) viii. 1 no of top trim made of aluminum extrusion. ix. Cover Trims and end trims. x. Joinery post made of aluminum extrusion having average wall thickness of 1.2mm and coated with epoxy powder coating. x. Die Cast Caps (made of aluminium alloy having average wall thickness of 1.2 mm and coated with epoxy powder coating) to cover exposed top edge of Panel at junctions and ends. Panels are to be supported on Double side legs (fabricated by CO2 welded MS Tube with the MS base plate)				

	with levellers. e. Work surface: Made of 25 mm thick pre-laminated particle board having all its edges with minimum 2 mm thick PVC edge banding.				
	The work surface shall be provided with circular cut out of 0.65mm diameter as per the requirement, for passing of wires. These cut outs shall be provided with ABS covers. f. Brackets providing support for work surface: i. Work surface Bracket mounted on to the Horizontal extrusion and made from 2.0 mm thick CRCA grade D steel as per IS: 513-19. All the work surface are mounted on the work surface through round Philip head diameter 4 mm x 19 length having finish zinc plated blue. ii. Holder Bracket made from 2.0 mm thick CRCA grade D steel as per IS:513-19, slid in between end trim and vertical extrusion and mounted on work surface.g. Certification: Product Should be certified by India Design Mark Certification, Griha & BIFMA Level 2, Greenguard (UL), Green Pro Certified. Manufacturer Should have ISO 9001, 18001, BIFMA Membership Certification				
12	**Providing, assembling and placing of Leatherite Visitor Chair.**	7.00	each	19527.60	136693.20
	The cushioned seat should be made of injection moulded Plastic outer & inner. Plastic inner should be upholstered with leatherette and moulded High resilience polyurethane foam of density 45+/-2 kg/m3, and hardness load 16+/-2 kgf as per IS :7888 for 25% compression.The cushioned back is made of PU foam with insitu molded MS ERW Round tube of size 1.9+/-0.03cm x 0.16+/-0.0128 cm.It should be upholstered with leatherite. Seat size :47 cm (W) x 48 cm (D). Visitor size (D). Mid back size : 47.7 cm (W) x 60.1cm (D).				
13	**Providing, assembling and placing of L Shape Wooden Table with ERU 1200mmW x 600mmD x 750mmH with Side unit 900W x 450D x 750H With Pedestal.**	2.00	each	44334.74	88669.49
	The top panel is made from 25 ± 0.5 mm thick pre laminated boards as per IS-12823 with 2 mm thick PVC beading on all sides. The side panel is made from 18 ± 0.5 mm thick pre laminated boards as per IS-12823 with 0.8 mm PVC beading on all sides. The modesty panel is made				

	from 18±0.5 mm thick pre laminated boards as per IS-12823 with 0.8 mm thick PVC beading on all edges. The top panel is made from 25±0.5 mm thick pre laminated boards as per IS-12823 with 2mm thick PVC beading on all sides. The side panel is made from 18±0.5mm thick pre laminated board as per IS-12823 with 0.8 mm PVC beading on all sides. The modesty panel is made from 18±0.5 mm thick pre laminated boards as per IS-12823 with 0.8 mm thick PVC beading on all sides. The Hinges of the door is made from 25±0.5 mm thick pre laminated boards as per IS-12823 which 2mm thick PVC beading on all sides. The panel is made PVC beading on all edges. The panel is made from 9±0.5 mm thick pre laminated board the wooden panel. The pedestal is made from 18±0.5 mm thick the laminated boards as per IS-12823 PVC beading on all side sides. The panel of box and filing box is made from 9±0.5 mm thick laminated board.				
14	**Providing, assembling and placing of Mesh Full Back Chair with Headrest.**	3.00	each	16955.66	50866.99
	SEAT ASSEMBLY Should be made up of 1.5 ± 0.1 cm thick hot - pressed plywood upholstered with fabric and moulded polyurethane foam. SEAT SIZE: 51.8cm (W) x 49.7cm (D). The Back is injection moulded in glass filled Nylon which is upholstered with Mesh fabric.The back consist of adjustable Lumbar support made of injection moulded Polypropylene having an adjustment of 5.0 ±0.1 cm. BACK SIZE: 47.9 cm(W) x 66.9 cm (H). HIGH RESILIENCE (HR) POLYURETHANE FOAM: The HR polyurethane seat foam is moulded with density 45+/-2 kg/m³ and hardness 16 ± 2 kgf as per IS:7888 for 25% compression. ARMRESTS (ADJUSTABLE) :The height adjustable armrest is made of Polypropylene and can be adjusted to 6.0±0.1cm height. It also has swivel and To and Fro adjustment with moulded PU arm top. ACTIVE BIO-SYNCHRO MECHANISM: The adjustable tilting mechanism is designed with the following features: · 360° revolving type· Front-pivot for tilt with feet resting on ground & continuous lumber support ensuring more comfort.· Tilt tension adjustment can be operated in seating position. · 5 position Tilt limiter giving option of variable tilt angle to the chair.· Seat / back tilting ratio of 1:2.				

	· The mechanism housing is made up of HPDC Aluminium & black powder coated (DFT 40 to 60 micron).The Headrest sub-assembly is made up of injection moulded glass fill Polypropylene which is upholstered with moulded HR polyurethane foam and fabric. It has an adjustment of 3.0 ± 0.1cm & it is assembled over GRETA 2.0 Full back chair. The complete headrest assembly is retro fit to the main chair. The pneumatic height adjustment with an adjustment stroke of 10.0 ± 0.3cm. Product Should be Green guard UL certified				
15	**Providing, assembling and placing of Tile Based Modular Workstation 1350W*1200W x 600D with pedestal, Keyboard Tray and CPU Trolley.**	4.00	each	83006.94	332027.77
	a. Partition height: 1200 mm. b. Each workstation to be provided with Mobile pedestal (2 Drawer and one filing Cabinet) [Size: 400mm (W) x 560mm (D) x 560mm (H)], Keyboard pull-out tray and CPU trolley c. Panel thickness: Main Panel 52.4mmd. Panel components: i. 2 nos of vertical extrusion made of aluminum and coated with epoxy powder coating. ii. Horizontal extrusions made of aluminum and coated with epoxy powder coating at every division of tile/block. iii. Blocks made from composite construction of MDF and paper honeycomb. iv. One no. of fabricated bottom frame (comprising of L-channels, formed plates and steel tube welded together and coated with epoxy powder coating) as a welded structure of steel component. v. 1 nos of Plain metal bottom tiles made of 0.8mm thick MS CRCA Grade D as per IS: 513 vi. 2 nos of Pre-laminated intermediate tiles made of 9.0 to 9.5 mm thick pre-laminated particle board conforming to IS: 12823 having all its edges with minimum 0.5 mm thick PVC edging vii. 1 nos of Fabric magnetic top tiles (fabric upholstered metal tiles in 0.6 mm thick G.I. Grade O as per IS: 277. The fabric upholstered with adhesives) viii. 1 no of top trim made of aluminium extrusion. ix. Cover Trims and end trims. x. Joinery post made of aluminium extrusion having average wall thickness of 1.2mm and coated with epoxy powder coating. x. Die Cast Caps (made of aluminium alloy having average wall thickness of 1.2 mm and coated with epoxy powder				

	coating) to cover exposed top edge of Panel at junctions and ends. Panels are to be supported on Double side legs (fabricated by CO2 welded MS Tube with the MS base plate) with levellers. e. Work surface: Made of 25 mm thick pre-laminated particle board having all its edges with minimum 2 mm thick PVC edge banding.				
	The work surface shall be provided with circular cut out of 0.65mm diameter as per the requirement, for passing of wires. These cut outs shall be provided with ABS covers. f. Brackets providing support for work surface: i. Work surface Bracket mounted on to the Horizontal extrusion and made from 2.0 mm thick CRCA grade D steel as per IS: 513-19. All the work surface are mounted on the work surface through round Philip head diameter 4 mm x 19 length having finish zinc plated blue. ii. Holder Bracket made from 2.0 mm thick CRCA grade D steel as per IS:513-19, slid in between end trim and vertical extrusion and mounted on work surface.g. Certification: Product Should be certified by India Design Mark Certification, Griha & BIFMA Level 2, Greenguard (UL), Green Pro Certified. Manufacturer Should have ISO 9001, 18001, BIFMA Membership Certification				
16	**Providing, assembling and placing of Mesh Full Back Chair without Headrest.**	4.00	each	15958.26	63833.06
	SEAT ASSEMBLY Should be made up of 1.5 ± 0.1 cm thick hot - pressed plywood upholstered with fabric and moulded polyurethane foam. SEAT SIZE: 51.8cm (W) x 49.7cm (D). The Back is injection moulded in glass filled Nylon which is upholstered with Mesh fabric.The back consist of adjustable Lumbar support made of injection moulded Polypropylene having an adjustment of 5.0 ±0.1 cm. BACK SIZE: 47.9 cm(W) x 66.9 cm (H). HIGH RESILIENCE (HR) POLYURETHANE FOAM: The HR polyurethane seat foam is moulded with density 45+/-2 kg/m³ and hardness 16 ± 2 kgf as per IS:7888 for 25% compression. ARMRESTS (ADJUSTABLE) :The height adjustable armrest is made of Polypropylene and can be adjusted to 6.0±0.1cm height.It also has swivel and To and Fro adjustment with moulded PU armtop. ACTIVE BIO-SYNCHRO MECHANISM: The adjustable tilting mechanism is designed with the following features: · 360° revolving type				

	· Front-pivot for tilt with feet resting on ground & continuous lumber support ensuring more comfort. · Tilt tension adjustment can be operated in seating position. · 5 position Tilt limiter giving option of variable tilt angle to the chair. · Seat / back tilting ratio of 1:2. · The mechanism housing is made up of HPDC Aluminium & black powder coated (DFT 40 to 60 micron). The pneumatic height adjustment with an adjustment stroke of 10.0 ± 0.3cm. Product Should be Greenguard UL certified				
17	**Providing, assembling and placing of Tile Based Modular Workstation 1200W x 600D with pedestal, Keyboard Tray and CPU Trolley.**	7.00	each	48526.45	339685.13
	a. Partition height: 1200 mm. b. Each workstation to be provided with Mobile pedestal (2 Drawer and one filing Cabinet) [Size: 400mm (W) x 560mm (D) x 560mm (H)], Keyboard pull-out tray and CPU trolley c. Panel thickness: Main Panel 52.4mmd. Panel components: i. 2 nos of vertical extrusion made of aluminum and coated with epoxy powder coating. ii. Horizontal extrusions made of aluminum and coated with epoxy powder coating at every division of tile/block. iii. Blocks made from composite construction of MDF and paper honeycomb. iv. One no. of fabricated bottom frame (comprising of L-channels, formed plates and steel tube welded together and coated with epoxy powder coating) as a welded structure of steel component. v. 1 nos of Plain metal bottom tiles made of 0.8mm thick MS CRCA Grade D as per IS: 513 vi. 2 nos of Pre-laminated intermediate tiles made of 9.0 to 9.5 mm thick pre-laminated particle board conforming to IS: 12823 having all its edges with minimum 0.5 mm thick PVC edging vii. 1 nos of Fabric magnetic top tiles (fabric upholstered metal tiles in 0.6 mm thick G.I. Grade O as per IS: 277. The fabric upholstered with adhesives) viii. 1 no of top trim made of aluminum extrusion. ix. Cover Trims and end trims. x. Joinery post made of aluminum extrusion having average wall thickness of 1.2mm and coated with epoxy powder coating. x. Die Cast Caps (made of aluminium alloy having average				

	wall thickness of 1.2 mm and coated with epoxy powder coating) to cover exposed top edge of Panel at junctions and ends. Panels are to be supported on Double side legs (fabricated by CO2 welded MS Tube with the MS base plate) with levellers. e. Work surface: Made of 25 mm thick pre-laminated particle board having all its edges with minimum 2 mm thick PVC edge banding.				
	The work surface shall be provided with circular cut out of 0.65mm diameter as per the requirement, for passing of wires. These cut outs shall be provided with ABS covers. f. Brackets providing support for work surface: i. Work surface Bracket mounted on to the Horizontal extrusion and made from 2.0 mm thick CRCA grade D steel as per IS: 513-19. All the work surface are mounted on the work surface through round Philip head diameter 4 mm x 19 length having finish zinc plated blue. ii. Holder Bracket made from 2.0 mm thick CRCA grade D steel as per IS:513-19, slid in between end trim and vertical extrusion and mounted on work surface.g. Certification: Product Should be certified by India Design Mark Certification, Griha & BIFMA Level 2, Greenguard (UL), Green Pro Certified. Manufacturer Should have ISO 9001, 18001, BIFMA Membership Certification				
18	**Providing, assembling and placing of Mesh Full Back Chair without Headrest.**	7.00	each	15958.26	111707.85
	SEAT ASSEMBLY Should be made up of 1.5 ± 0.1 cm thick hot - pressed plywood upholstered with fabric and moulded polyurethane foam. SEAT SIZE: 51.8cm (W) x 49.7cm (D). The Back is injection moulded in glass filled Nylon which is upholstered with Mesh fabric.The back consist of adjustable Lumbar support made of injection moulded Polypropylene having an adjustment of 5.0 ±0.1 cm. BACK SIZE: 47.9 cm(W) x 66.9 cm (H). HIGH RESILIENCE (HR) POLYURETHANE FOAM: The HR polyurethane seat foam is moulded with density 45+/-2 kg/m³ and hardness 16 ± 2 kgf as per IS:7888 for 25% compression. ARMRESTS (ADJUSTABLE) :The height adjustable armrest is made of Polypropylene and can be adjusted to 6.0±0.1cm height.It also has swivel and To and Fro adjustment with moulded PU armtop. ACTIVE BIO-SYNCHRO MECHANISM: The adjustable tilting mechanism is designed with				

	the following features: · 360° revolving type · Front-pivot for tilt with feet resting on ground & continuous lumber support ensuring more comfort. · Tilt tension adjustment can be operated in seating position. · 5 position Tilt limiter giving option of variable tilt angle to the chair. · Seat / back tilting ratio of 1:2. · The mechanism housing is made up of HPDC Aluminium & black powder coated (DFT 40 to 60 micron). The pneumatic height adjustment with an adjustment stroke of 10.0 ± 0.3cm. Product Should be Greenguard UL certified				
	Main Office Area				
19	**Providing, assembling and placing of Desking Suite (Main Desk 1800mm*900mm*750mm & Side unit 1200mm* 600mm*730mm).**	1.00	each	153612.98	153612.98
	Over all Size of the suite will be Main Table(1800 x 900 x 750), ERU(1200 X 600 X 730), Pedestal(400 x 560 x 560), Top Panel should be made of 25mm thick particle board clad with decorative post formed laminate on top side & balancing laminate on bottom side with 30mm MDF Post. Post forming edge on longitudinal side. Modesty panel should be 18mm thick pre lam particle board. ERU top panel should be 25mm thick particle board decorative post formed laminate on top side & balancing laminate on bottom side with 30mm MDF Post. Post forming edge on longitudinal side.Legs made of 18&25mm thick MDF Board. Joing table should be made of 25mm thick MDF board with two sides Painted finish hardness 2H. Pedestal should be 25mm thick particle board clad with decorative post formed laminate on top side & balancing laminate on bottom side. Post forming edge on front side. other panel 18mm thick particle board. Manufacturer should be certified with ISO18001, ISO 9001, ISO 14001 and a member of BIFMA.				
20	**Providing, assembling and placing of Pure Leather High Back Chair.**	1.00	each	54732.88	54732.88

	Mid Back Chair back Size should be 47.5cm W*77cm D, Seat size should be 47.6cm W*49.2cm D. Seat Assembly should be Cushioned seat made of injection molded plastic inner and outer upholstered with pure leather and moulded High Resilience (HR) Polyurethene foam of density 45 kg/m3 and hardness load 16KGF as per IS 7888 for 25% comression. BAck assembly should be cushioned made of PU Foam with insitu molded MS ERW round tube of size 1.6cm * 0.16cm, upholstered with pure leather. Armrest is molded PU upholstered in pure leather, adustable upto 6.5 cm in 5 steps. Armrest should be mounted on to a drop lift adjustable type tubular armrest support made of MS ERW Tube having chrome plated finish. Chair should be equiped with Active Bio-synchro Mechanism : The adjustable tilting mechanism is designed with the following features: 360° revolving type, Front - pivot for tilt with feet resting on ground & continious lumber ensuring more comfort, Tilt tension Adjustment can be operated in seating position, 5 position tilt limiter giving option of variable tilt angel to the chair, Seat/ back tilt ratio of 1:2, The mechanism housing is made up of HPDC Aluminium & back powder coated. Seat depth should be integrated in the seat though sliding mechanism with range 6 cm. Back frame should be connected with up/dn mechanism housed in plastic spine, back support can be adjusted in the range of 7 cm . the pneumatic height adjustment should have adjustment stroke of 10 cm . The pedestal should be high pressure die cast polished Aluminium fitted with 5No.s twin wheel castors. Manufacturer should be certified with ISO18001, ISO 9001, ISO 14001 and a member of BIFMA. Product Should be Cerified by BIFMA Level 2 an greenguard (UL)				
21	**Providing, assembling and placing of Leatherite Visitor Chair.**	3.00	each	19527.60	58582.80
	The cushioned seat should be made of injection moulded Plastic outer & inner. Plastic inner should be upholstered with leatherette and moulded High resilience polyurethane foam of density 45+/-2 kg/m3, and hardness load 16+/-2 kgf as per IS :7888 for 25% compression.The cushioned back is made of PU foam with insitu molded MS ERW Round tube of size 1.9+/-0.03cm x 0.16+/-0.0128 cm.It should be upholstered with leatherite. Seat size :47 cm (W)				

	x 48 cm (D). Visitor size (D). Mid back size : 47.7 cm (W) x 60.1cm (D).				
22	**Providing, assembling and placing of Receprion Desk 8 ft.**	1.00	each	82451.07	82451.07
	A modular reception table with dimension 2410mm W*1060mm D*725mmH. Height with worksurface counter 1035mm H. Desk should comprise of 1. Rubber wood Top with clean matt PU finish 18mm thick, inside radius 700mm, outside radius 1350mm, depth 650mm. 2. Rubberized cork with 18mm thick 3. 10 mm thick diamond cut frosted glass, inside radius 1202.5mm, outside radius 1402.5mm, dept 200mm.Understructure should comprise of MS perforated sheet modesty panel, below worksurface should be 0.8mm thick*665.0mm height * 1345mm flat length. Above worksurface should be 0.8mm Thick* 260mm Height * 1345mm Flat length. Legs should be 1.6mm thick MS tube with diameter 50.8mm, height 604mm				
23	**Providing, assembling and placing of Mesh full Back Chair with Headrest.**	1.00	each	16955.66	16955.66
	SEAT ASSEMBLY Should be made up of 1.5 ± 0.1 cm thick hot - pressed plywood upholstered with fabric and moulded polyurethane foam. SEAT SIZE: 51.8cm (W) x 49.7cm (D). The Back is injection moulded in glass filled Nylon which is upholstered with Mesh fabric.The back consist of adjustable Lumbar support made of injection moulded Polypropylene having an adjustment of 5.0 ±0.1 cm. BACK SIZE: 47.9 cm(W) x 66.9 cm (H). HIGH RESILIENCE (HR) POLYURETHANE FOAM: The HR polyurethane seat foam is moulded with density 45+/-2 kg/m³ and hardness 16 ± 2 kgf as per IS:7888 for 25% compression. ARMRESTS (ADJUSTABLE) :The height adjustable armrest is made of Polypropylene and can be adjusted to 6.0±0.1cm height.It also has swivel and To and Fro adjustment with moulded PU armtop. ACTIVE BIO-SYNCHRO MECHANISM: The adjustable tilting mechanism is designed with the following features: · 360° revolving type · Front-pivot for tilt with feet resting on ground & continuous lumber support ensuring more comfort. · Tilt tension adjustment can be operated in seating position. · 5 position Tilt limiter giving option of variable				

	tilt angle to the chair. · Seat / back tilting ratio of 1:2. · The mechanism housing is made up of HPDC Aluminium & black powder coated (DFT 40 to 60 micron). The pneumatic height adjustment with an adjustment stroke of 10.0 ± 0.3cm. Product SHould be Greenguard UL certified				
24	**Providing, assembling and placing of Tile Based Modular Workstation 1500W*1500W x 600D with pedestal, Keyboard Tray and CPU Trolley.**	2.00	each	83812.84	167625.67
	a. Partition height: 1200 mm. b. Each workstation to be provided with Mobile pedestal (2 Drawer and one filing Cabinet) [Size: 400mm (W) x 560mm (D) x 560mm (H)], Keyboard pull-out tray and CPU trolley c. Panel thickness: Main Panel 52.4mmd. Panel components: i. 2 nos of vertical extrusion made of aluminum and coated with epoxy powder coating. ii. Horizontal extrusions made of aluminum and coated with epoxy powder coating at every division of tile/block. iii. Blocks made from composite construction of MDF and paper honeycomb. iv. One no. of fabricated bottom frame (comprising of L-channels, formed plates and steel tube welded together and coated with epoxy powder coating) as a welded structure of steel component. v. 1 nos of Plain metal bottom tiles made of 0.8mm thick MS CRCA Grade D as per IS: 513 vi. 2 nos of Pre-laminated intermediate tiles made of 9.0 to 9.5 mm thick pre-laminated particle board conforming to IS: 12823 having all its edges with minimum 0.5 mm thick PVC edging vii. 1 nos of Fabric magnetic top tiles (fabric upholstered metal tiles in 0.6 mm thick G.I. Grade O as per IS: 277. The fabric upholstered with adhesives) viii. 1 no of top trim made of aluminum extrusion. ix. Cover Trims and end trims. x. Joinery post made of aluminum extrusion having average wall thickness of 1.2mm and coated with epoxy powder coating. x. Die Cast Caps (made of aluminium alloy having average wall thickness of 1.2 mm and coated with epoxy powder coating) to cover exposed top edge of Panel at junctions and ends. Panels are to be supported on Double side legs (fabricated by CO2 welded MS Tube with the MS base plate) with levellers.				

	e. Work surface: Made of 25 mm thick pre-laminated particle board having all its edges with minimum 2 mm thick PVC edge banding.				
	The work surface shall be provided with circular cut out of 0.65mm diameter as per the requirement, for passing of wires. These cut outs shall be provided with ABS covers. f. Brackets providing support for work surface: i. Work surface Bracket mounted on to the Horizontal extrusion and made from 2.0 mm thick CRCA grade D steel as per IS: 513-19. All the work surface are mounted on the work surface through round Philip head diameter 4 mm x 19 length having finish zinc plated blue. ii. Holder Bracket made from 2.0 mm thick CRCA grade D steel as per IS:513-19, slid in between end trim and vertical extrusion and mounted on work surface.g. Certification: Product Should be certified by India Design Mark Certification, Griha & BIFMA Level 2, Greenguard (UL), Green Pro Certified. Manufacturer Should have ISO 9001, 18001, BIFMA Membership Certification				
25	**Providing, assembling and placing of Mesh Full Back Chair with Headrest.**	2.00	each	16955.66	33911.33
	SEAT ASSEMBLY Should be made up of 1.5 ± 0.1 cm thick hot - pressed plywood upholstered with fabric and moulded polyurethane foam. SEAT SIZE: 51.8cm (W) x 49.7cm (D). The Back is injection moulded in glass filled Nylon which is upholstered with Mesh fabric.The back consist of adjustable Lumbar support made of injection moulded Polypropylene having an adjustment of 5.0 ±0.1 cm. BACK SIZE: 47.9 cm(W) x 66.9 cm (H). HIGH RESILIENCE (HR) POLYURETHANE FOAM: The HR polyurethane seat foam is moulded with density 45+/-2 kg/m³ and hardness 16 ± 2 kgf as per IS:7888 for 25% compression. ARMRESTS (ADJUSTABLE) :The height adjustable armrest is made of Polypropylene and can be adjusted to 6.0±0.1cm height.It also has swivel and To and Fro adjustment with moulded PU armtop. ACTIVE BIO-SYNCHRO MECHANISM: The adjustable tilting mechanism is designed with the following features: · 360° revolving type · Front-pivot for tilt with feet resting on ground & continuous lumber support ensuring more comfort. · Tilt tension adjustment can be operated in				

	seating position. · 5 position Tilt limiter giving option of variable tilt angle to the chair. · Seat / back tilting ratio of 1:2. · The mechanism housing is made up of HPDC Aluminium & black powder coated (DFT 40 to 60 micron). The pneumatic height adjustment with an adjustment stroke of 10.0 ± 0.3cm. Product SHould be Greenguard UL certified				
	RD Hall				
26	**Providing, assembling and placing of Desking Suite (Main Desk 1800mm*900mm*750mm & Side Unit 1200mm* 600mm*730mm & Joining Table 1050mm*120mm*750mm).**	1.00	each	179605.03	179605.03
	Over all Size of the suite will be Main Table(1800 x 900 x 750), ERU(1200 X 600 X 730), Pedestal(400 x 560 x 560), Top Panel should be made of 25mm thick particle board clad with decorative post formed laminate on top side & balancing laminate on bottom side with 30mm MDF Post. Post forming edge on longitudinal side. Modesty panel should be 18mm thick pre lam particle board. ERU top panel should be 25mm thick particle board decorative post formed laminate on top side & balancing laminate on bottom side with 30mm MDF Post. Post forming edge on longitudinal side.Legs made of 18&25mm thick MDF Board. Joing table should be made of 25mm thick MDF board with two sides Painted finish hardness 2H. Pedestal should be 25mm thick particle board clad with decorative post formed laminate on top side & balancing laminate on bottom side. Post forming edge on front side. other panel 18mm thick particle board. Manufacturer should be certified with ISO18001, ISO 9001, ISO 14001 and a member of BIFMA.				
27	**Providing, assembling and placing of Credenza (1400mm*470mm*760mm).**	1.00	each	111473.84	111473.84
	Over all size should be (1400mmW x 460mmD x 755mmH). Top & Bottom panel 25mm thick particle board clad decorative post formed laminate on top side & balancing laminate on bottom side. Post forming edge on front side. Other panel 18mm thick Pre lam board. Upper glass door should be 5mm thick tinted glass.				

	matel handles should be provided with shutter door. Manufacturer should be certified with ISO18001, ISO 9001, ISO 14001 and a member of BIFMA				
28	**Providing, assembling and placing of Matching Book Case (760mm*400mm*2200mm).**	1.00	each	57488.34	57488.34
	Over all size should be (790mmW x 400mmD x 2200mmH). Top & Bottom panel 25mm thick particle board clad decorative post formed laminate on top side & balancing laminate on bottom side. Post forming edge on front side. Other panel 18mm thick Pre lam board. Upper glass door should be 5mm thick tinted glass. matel handles should be provided with shutter door. Manufacturer should be certified with ISO18001, ISO 9001, ISO 14001 and a member of BIFMA				
29	**Providing, assembling and placing of Leather Executive Very High Back Chair.**	1.00	each	96937.18	96937.18
	1) Seat / Back Assy: The seat and back should be made up of 1.2cm.thick hot pressed plywood upholstered with leather and moulded Polyurethane foam. The back foam should be designed with Contoured lumber support for extra comfort. Back Size: 53.0cm. (W) X 95.4cm. (H) 2) Polyurethane Foam: The polyurethane foam should be moulded with density = 45+/-2kg/m3 and Hardness = 16+/-2 3) Seat-Back Connecting Spine: The seat and back should be arrested together spine made of 0.8cmthk. HR steel. The spine should be black powder-coated. 4) Armrest Assy: The armrest assy. should comprises of three parts viz. the armrest support tube and P.U. armrest and the armrest top. The armrest tube assy. is made of 2.54cm(1") x 0.16 +/-0.01 BG. M.S. E.R.W. support tubes and Chrome plated. ThePU. armrest is made of black integral skin polyurethane with 50-70 Shore `A' Hardness and reinforced with M.S. Insert. The armrest top is made of ABS & upholstered with foam & leather. 5) Front Pivot Synchro Tilt Mech. features: • 360 digree Revolving type • 12 digree Seat tilt & 19 digree Back tilt • Front pivot for tilt with feet resting on ground ensuring more comfort. • Tilt tension adjustment. • 5-position locking with anti-shock back mechanism, which prevents the backrest from impacting the user when the lock is released. • Static seat depth adjustment = 5.0cm with 5 position locking. 6) Pneumatic Height Adjustment : It has an adjustment stroke of 8.0cm. 7) Bellow: The bellow is 1-piece and blow moulded in black polypropylene. 8) Pedestal Assy: The pedestal is made of die-cast aluminium with buffing				

	finished. It is fitted with 5nos. twin wheel castors. The pedestal is 67.0cm pitch-center dia. 9) Twin Wheel Castors: The twin wheel castors are injection moulded in 30% Glass filled black Nylon. Overall Size: 770mm W x 770mm D x 1325mm – 1405mm H x 475mm – 557mm SH.				
30	**Providing, assembling and placing of Leatherite Visitor Chair.**	3.00	each	19527.60	58582.80
	The cushioned seat should be made of injection moulded Plastic outer & inner. Plastic inner should be upholstered with leatherette and moulded High resilience polyurethane foam of density 45+/-2 kg/m3, and hardness load 16+/-2 kgf as per IS :7888 for 25% compression.The cushioned back is made of PU foam with insitu molded MS ERW Round tube of size 1.9+/-0.03cm x 0.16+/-0.0128 cm.It should be upholstered with leatherite. Seat size :47 cm (W) x 48 cm (D). Visitor size (D). Mid back size : 47.7 cm (W) x 60.1cm (D).				
31	**Providing, assembling and placing of Meeting Table membrane (4200mm* 1500mm* 750mm).**	1.00	each	147172.49	147172.49
	Over all size 4200 X 1500 X 740. Made of 25mm thick MDFone side prelaminate board conforming to IS14587: 1998 with 0.4mm PVC membrane pressed on to top and having chamfered edge. Soft closing dual access flap provided for access to power supply and data cables. The Under-structure consists of mixture of 25mm and 18mm Pre-laminated twin board of E1-P2 grade and approved shade conforming to IS-12823:1990, Edge banded with matching 2 mm thick PVC lipping. Anodised aluminium alloy 63400 - WP profile is added at bottom edges for improving the aesthetics.The product has a knock-down construction. A wire raiser made of 0.8mm CRCA MS IS:513. It is epoxy polyester powder coated (DFT 40-60 microns) for flow of wires and cables. A Power box with 2 cutouts on either sides for standard 8 module Anchor Roma is provided. Beside each cutout, an additional cutout with plate is provided for mounting Audio Visual Cables(eg. HDMI,VGA-A,etc). Product Should be Greenguard by UL Environment, Indoor Advantage Gold				
32	**Providing, assembling and placing of Mesh Mid Back Chair.**	18.00	each	11081.69	199470.48

	Seat assembly should be made up of 1.2 cm thick hot pressed plywood measured as per QA method described in OCP-QLTA-P14 18, upholstered with fabric upholstery covers and moulded poluyrethene foam. Seat size should be 47cm W*48 cm D. Back assembly should be made of powder coated tubular frame of 1.54cm * 0.2 cm thick. MS SRW tube designed with contoured lumbar support for extra comfort. the Back is upholstered using net fabric with high lenecity yarn. High back size should be 46.5cm W* 60cm H. The High Resilience Polyurethene foam should be moulded with density 45 kg/m3 and hardness load 16 kgf for 25% compression. Armrests should be one piece and should be injection moulded from black co polymer polypropylene. CEntral tilt mechanism should be designed with features like - 360 degree revolving type, 17 degree maximum tilt on pivot at centre, upright position locking and tilt tension adjustment. The pneumatic height adjustment should have an adjustment stroke of 11 cm. The below should be 3 piece telescopic type and injection moulded in black polypropylene. Pedestal assembly should be injection moulded in black 33% glass filled Nylon66 and filled with 5 no.s twin wheel castors. the pedestal is 66.3 cm pitch center dia. 76.3 cm with castors. The twin wheeled castors should be injection moulded in black lylon				
33	**Providing, assembling and placing of Mesh High Back Chair.**	1.00	each	10053.71	10053.71
	Seat assembly should be made up of 1.2 cm thick hot pressed plywood measured as per QA method described in OCP-QLTA-P14 18, upholstered with fabric upholstery covers and moulded poluyrethene foam. Seat size should be 47cm W*48 cm D. Back assembly should be made of powder coated tubular frame of 1.54cm * 0.2 cm thick. MS SRW tube designed with contoured lumbar support for extra comfort. the Back is upholstered using net fabric with high lenecity yarn. High back size should be 46.5cm W* 70.5cm H. The High Resilience Polyurethene foam should be moulded with density 45 kg/m3 and hardness load 16 kgf for 25% compression. Armrests should be one piece and should be injection moulded from black co polymer polypropylene. CEntral tilt mechanism should be designed with features like - 360 degree revolving type, 17 degree maximum tilt				

	on pivot at centre, upright position locking and tilt tension adjustment. The pneumatic height adjustment should have an adjustment stroke of 11 cm. The below should be 3 piece telescopic type and injection moulded in black polypropylene. Pedestal assembly should be injection moulded in black 33% glass filled Nylon66 and filled with 5 no.s twin wheel castors. the pedestal is 66.3 cm pitch center dia. 76.3 cm with castors. The twin wheeled castors should be injection moulded in black lylon				
	Total (C)				**6495312.81**
	Total (A+B+C)				**11635900.58**
	Say				**11635901.00**

PART-C

ADDITIONAL CONDITIONS, SPECIFICATIONS AND SCHEDULE OF QUANTITIES APPLICABLE TO ELECTRICAL AND MECHANICAL COMPONENT OF THE WORK

ADDITIONAL CONDITIONS

1. The scope includes Planning, Design & preparation of Drawings for E&M services, obtaining approvals from the department, supplying, Installation, testing and commissioning of Internal & External Electrical Installations, Point Wiring, Power wiring, LT Cabling Work, LED light Fittings, Ceiling fans, Switch boards, MCB / MCCB DBs, LAN, EPABX, UPS, Split AC system, Audio-Video Conferencing system as per CPWD specifications and relevant BIS standards as amended up to last date of submission of bid including extensions if any.

2. The work shall be carried out strictly in accordance with CPWD specification for electrical works CPWD general specification Part-I (Internal) 2023, General specification for Heating Ventilation & Air Conditioning (HVAC) works -2017, and amended up to date and in accordance with Indian Electricity Rules, 1956, Indian Electricity Act, 2003 as amended up to date and NBC 2016 as amended up to date and as per instructions of the Engineer-in-Charge i/c as below and nothing extra will be paid.

3. The scope of works & specification is given in general but they are not exhaustive i.e. does not mention all the incidental works required to be carried out for complete execution of the item of work. The work shall be carried out, all in accordance with true intent and meaning of the specifications and the drawings taken together, regardless of whether the same may or may not be particularly shown on the drawings and/ or described in the specifications, provided that the same can be reasonably inferred there from. There may be several incidental works, which are not mentioned in the contract document/specifications but will be necessary to complete the item in all respect.

4. All these incidental works/ costs which are not mentioned, but are necessary to complete the work shall be deemed to have been included in the overall amount quoted by the contractor for various components of work. No adjustment of rates shall be made for any variation in quantum of incidental works due to variation/change in actual working drawings.

5. Adjustment of rates shall not be made due to any change in incidental works or any other deviation in such element of work (which is incidental to the items of work and are necessary to complete such items in all respects) on account of the directions of Engineer-in-charge. Nothing extra shall be payable on this account.

6. Agency will get the scheme approved from the local bodies wherever required before start of the work and if required after completion of the work also.

7. Three final copies of the documents prepared shall be submitted to Engineer-in-charge for record. All the documents created out of the assignment will become the sole property of the Department. The contractor shall obtain completion certificate after completion of the project from statutory local bodies before handing over.

8. Stage Payment for E&M packages: The following percentage of contract rates shall be payable against the stages of work shown herein:

S. No.	Stage of Work	Payment terms in %
1	On initial inspection of materials and delivery at site in good condition on basis	50%
2	On completion of installation	25%
3	On completion of testing and commissioning	20%
4	On Handing Over	5%
	Total	**100%**

9. ***ELIGIBILITY CRITERIA FOR ASSOCIATE AGENCY:*** The Composite category contractor is also eligible to carry out electrical and mechanical services works himself/herself without associating any specialized agency provided he fulfils the prescribed eligibility criteria respectively for these work(s) as mentioned below:

a) ***Eligibility Criteria for LAN & EPABX work:***

Agency should have satisfactorily completed the similar works as mentioned below during the last 7 years ending last day of the month previous to the one in which tenders are invited.

Three similar works each costing not less than **Rs. 0.41 Lacs**

OR

Two similar works each costing not less than **Rs. 0.61 Lacs**

OR

One similar works each costing not less than **Rs. 0.81 Lacs**

Similar work shall mean "***LAN & EPABX System***"**.**

b) ***Eligibility Criteria for Online UPS:***

Agency should have satisfactorily completed the similar works as mentioned below during the last 7 years ending last day of the month previous to the one in which tenders are invited.

Three similar works each costing not less than **Rs. 1.56 Lacs**

OR

Two similar works each costing not less than **Rs. 2.34 Lacs**

OR

One similar works each costing not less than **Rs. 3.12 Lacs**

Similar work shall mean "**Supplying, Installation, testing & commissioning of *Online UPS*" with minimum 80% capacity of Capacity proposed in NIT.**

c) ***Eligibility Criteria for Audio-Video Conferencing System:***

Agency should have satisfactorily completed the similar works as mentioned below during the last 7 years ending last day of the month previous to the one in which tenders are invited.

Three similar works each costing not less than **Rs. 7.16 Lacs**

OR

Two similar works each costing not less than **Rs. 10.74 Lacs**

OR

One similar works each costing not less than **Rs. 14.32 Lacs**

Similar work shall mean "**Supplying, Installation, testing & commissioning of *Audio-Video Conferencing System*".**

The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum, calculated from the date of completion to the last date of submission of bids.

10. The contractor has to submit MOU with associated contractor (in case electrical contractor is associated), engineers name, credential, email address & mobile no. before start of work. The main agency should possess a valid electrical contractor licence for executing EI works otherwise he has to associates contractor having valid electrical contractor licence.

11. The contractor shall employ Supervisory staff as per NIT provision who will be constantly in touch with the department and will sign site order book.

12. All the material to be used on this work by the contractor shall be got approved from the Engineer-in-Charge in advance before installation at the site.

13. The work shall be carried out according to instructions of the Engineer-in-Charge.

14. All damages done to the building during the execution of electrical work shall be the responsibility of the contractor and the same will be made good immediately at his own cost to the satisfaction of the Engineer-in-Charge. In case, the repair is not satisfactory, the department will get it rectified & any expenditure incurred by the department in this connection shall be recovered from the contractor and decision of the Engineer-in-charge about recovery shall be final & binding on the contractor.

15. The bad workmanship will not be accepted and defects shall be rectified at contractor's cost to the satisfaction of the Engineer-in-Charge. The program of electrical works is to be coordinated in accordance with the civil work.

16. All the debris of the electrical works should be removed and the site should be cleared by the contractor immediately after the accruing of debris daily. Similarly rejected material if any should be immediately cleared off from the site by the contractor.

17. Cement for work is to be arranged and used by the contractor himself and nothing extra will be paid on this account.

18. The contractor or his engineer is bound to sign the site order book as and when required by the Engineer-in-Charge and to comply with the remarks therein.

19. The size of conduit and wiring shall be got approved from the Engineer-in-Charge before the execution of work.

20. The contractor shall make his own arrangement at his own cost for Electrical/ General tools and plants required for the work. In case, proper tools are not available, the department will purchase the tools for bonafide use of work at the risk & cost of the contractor.

21. Main board and main distribution board: The work shall be carried out according to the drawing/details as approved by the Engineer-in-Charge. The contractor shall have to get the sample approved before the whole lot is brought to site. The main board, distribution board shall be properly labelled.

22. No tax shall be separately paid by the department. The rates tendered should be inclusive all taxes and duties. Statutory deductions at source shall be made while releasing payment through running/final bills as applicable. A certificate specifying the rate and amount of deduction shall however be issued by the department. The entire installation shall be at the risk and responsibility of the contractor until these are tested and handed over to the department. The watch & ward is the responsibility of the contractor till handing over.

23. Notwithstanding the schedule of quantities, all items of interrelated works considered necessary to make the installation complete and operative are deemed to be included, shall be provided by the contractor at no extra cost.

24. The connection inter connection, earthing and inter earthing shall be done by the contractor wherever required and nothing extra shall be paid on this account.

25. Nothing extra shall be paid for inter connections with thimbles/Wires/Tapes strips etc. used on the work.

26. The contractor has to make his own arrangements for stores and watch and ward and no extra claim for this will be entertained.

27. The contractor shall make his own arrangements for electrical power supply for the construction activities. No extra payments for the same will be made.

28. The wiring and conduit route shall be marked by the contractor on the drawing first, and shall be got approved from the Engineer-in-charge.

29. The rupturing capacity of the MCB's shall be 10KA. The MCB's shall have ISI mark.

30. The insulated copper wire to be used on this work shall be FRLS type of multi stranded.

31. Make of MCB/MCCB shall be the same as the make of MCB DB.

32. The contractor shall on demand by the Engineer-in-charge, furnish the proof to the satisfaction of Engineer-in-charge regarding purchase of Wires, Modular switches & accessories, MCBs MCBDB fan & fixture and accessories and other items, from the manufactures authorized outlets.

33. All PVC/MS conduits accessories shall be of the same make as conduits and shall be ISI marked. The conduits shall be terminated as switch boxes/metallic junction boxes with suitable glands/check nuts.

34. Cutting of brick walls shall be done with due care. All repairs and patch works shall be neatly carried out to match the original finish and to the entire satisfaction of the Engineer in Charge.

35. All the sub main and circuits wiring includes loose wire for connections inside switch boxes and MCB DBs. No payment for these loose wires shall be made. However, wires within the cubicle panel will be measured and paid under relevant item of work.

36. To facilitate drawing of wires, 18 SWG GI fish wire shall be provided along with laying of recessed conduit for which no extra payment shall be made. Conduits laid for other services, like TV, Telephone etc., where wiring is not done along with IEI work, fish wire shall be invariably drawn.

37. The connection between incoming switch/isolator and bus bar shall be made with suitable size of thimble and cable at no extra cost.

38. Copper conductor of insulated cables of size 1.5 Sq.mm and above shall be stranded and terminals provided with crimped lugs.

39. All hardware items such as screws, thimbles, GI wire etc. which are essentially required for completing an item as per specification will be deemed to be included in the item even when the same have not been specifically mentioned.

40. All hardware items such as nuts/bolts/screws/washers etc. to be used in work shall be of zinc/cadmium plated iron.

41. While laying conduit, suitable size junction boxes shall be provided for pulling the wire as per the decision of the Engineer-in-charge.

42. Materials to be used in work are to be ISI marked. The make of the materials has been indicated in the list of preferred makes. No other makes will be acceptable. The materials to be used in the work shall be got approved by the Engineer in Charge/his representative before its use at site. The Engineer-in-charge shall reserve the right to instruct the contractor to remove the material which, in his opinion, is not acceptable.

43. Where switches / sockets / regulator / telephone / TV / internet outlets are to be provided, the same shall be of only one make. Modular accessories for UPS outlets shall be of distinguishable colour.

44. The materials used in the work shall be of approved make as per list of preferred makes. In the preferred makes of fitting model no. of one of the acceptable makes has been mentioned for guidance. However, the contractor is free to supply other makes mentioned therein, provided the parameters of the fittings match with the fitting model No. mentioned in NIT. The decision of Engineer-in-charge shall be final.

45. The defect liability period of whole E & M, UPS, EPABX system, Krone Box & Audio-Video conferencing system works shall be 5 years from the date of record of completion of work from the competent authority.

46. The contractor shall have to work as per the convenience of the concerned Department.

47. Any conduit which is not to be wired by the contractor shall be provided with GI fish wire for wiring for some other agency subsequently. Nothing extra shall be paid for the same.

48. The tenderer should either himself meet the eligibility conditions for the respective E&M components or otherwise he will have to associate with agencies, fulfilling the eligibility requirements and hence consent letter from eligible Associate Agency of the respective components of E&M work shall also be submitted as per attached **Proforma in Form "A".**

49. In case the main contractor is himself eligible (as per eligibility criteria) for executing any specific minor component and intends doing the job himself, he may not be required to associate with another agency for that minor component of work. In such cases the main contractor also has to submit the documents as per eligibility criteria mentioned for associated agency of individual E&M component.

50. In support of the eligibility conditions of the proposed Associated Contractor, copy of their registration documents, Electrical License, GST Documents duly attested by the applicants (Main Contractor) shall be submitted to the **Executive Engineer, CED-IV, CCU** for deciding the eligibility. Each such Associated Contractor will certify that they are not debarred as on the day of application for tender participation. Proposal for associating agency for minor components of work shall be submitted in **Form 'B'** of this tender document from each associate independently for all electrical and mechanical components.

51. The main contractor should submit an affidavit of MoU signed with eligible associated contractor. The MoU in the enclosed **Form 'C'** shall be signed by both the parties, main contractor as 1st party and associated contractor as 2nd party independently for all electrical and mechanical components.

52. In the event of the concerned E&M agency not performing satisfactorily or failure of associate contractor to complete the E&M work, the main contractor on written directions of the department, shall remove the Associate contractor deployed on the work and shall submit name of new associate agency who fulfil the conditions mentioned in the NIT to

execute the leftover work without any loss of time or variation in cost to the department. **Such associates shall also give an undertaking along with the main tenderer but both of them together will stand guarantee for the equipment's already supplied for which payment has been released by the department in part**. If any equipment supplied for the work, during the currency of the earlier Associate contractor and paid partly by the Department, becomes redundant / not in a position to be installed and commissioned and put to beneficial use due to change in agency for execution of E&M work, the main contractor shall be liable for replacement of the equipment(s) at no cost to Department. No change of Associated Contractor will be allowed without prior approval of the Engineer-in-charge of the work.

53. In respect of all works i.e., Electrical installation**.,** the materials shall be procured only from the original equipment manufacturers / authorized dealers of OEM. The contractor shall submit all documentary details in fulfilment of these conditions regarding procurement of materials including relevant test certificates.

54. Before completion of defect liability period as per condition laid down in GCC 2023, the main contractor has to submit security deposit of 5% of 80% of the price of LED fittings, UPS, EPABX system, Krone Box & Audio-Video Conferencing system for the remaining 4 years warranty period for LED fittings, UPS, EPABX system, Krone Box & Audio-Video Conferencing system in acceptable form i.e. FDR/ Bank guarantee to Engineer in charge. The Security Deposit deducted from the bills of contractor shall be refunded to the main contractor only after submission of above security deposit for LED fittings, UPS, EPABX system, Krone Box & Audio-Video Conferencing system by main contractor, failing which this security deposit shall be deducted from Security Deposit deducted for total work and balance amount only will be refunded after completion of defect liability period. The LED fittings, UPS, EPABX system, Krone Box & Audio-Video Conferencing system Security Deposit will be released after completion of warranty period of 5 years to the main contractor**.**

55. The contractor shall execute the whole work in the most substantial and workman like manner in strict accordance with the specifications, approved design, drawings, particular specifications, special conditions, additional conditions and instructions of the Engineer-in-Charge.

56. The contractor shall at his own expense and risk arrange land for accommodation of labour, setting up of office, storage of materials, erection of temporary workshops, construction of approach roads to the site of work, including land required for carrying out of all jobs connected with the completion of the work. The contractor shall have to abide by the regulations of the authorities concerned and the directions of the Engineer-in-Charge for use of land available at the site of work. If it becomes necessary during construction to remove or shift the stored materials, shed, workshop, access roads, etc, to facilitate execution of the work included in this agreement or any other work by any other agency, the contractor shall remove or shift these facilities as directed by the Engineer-in-Charge and no claim whatsoever shall be entertained on this account.

57. The contractor shall at his own cost submit samples of all materials sufficiently in advance and obtain approval of Engineer-in-Charge. The materials to be used in actual execution of the work shall strictly conform to the quality of samples approved by the Engineer-in-Charge and nothing extra shall be paid on this account. The acceptance of any sample or material on inspection shall not be a bar to its subsequent rejection, if found defective.

58. The contractor shall at his cost, make all arrangements and shall provide necessary facilities as the Engineer-in-Charge may require for collecting, preparing, packing, forwarding and transportation of the required number of samples for tests and for analysis at such time and to such places as directed by the Engineer-in-Charge. Nothing extra shall be paid for the above operations including the cost of materials required for tests and analysis. All expenditure to be incurred for testing of samples e.g. Packaging, sealing, transportation, loading, unloading etc including testing charges shall be borne by the contractor.

59. The necessary tests shall be conducted in the laboratory approved by the Engineer-in-Charge. The samples for carrying out all or any of the tests shall be collected by the Engineer-in-charge or on his behalf by any other officer of CCU. The contractor or his authorized representative shall associate himself in collection, preparation, packing and forwarding of such samples for the prescribed tests and analysis. In case the contractor or his authorized representative is not present or does not associate himself in the aforesaid operation the results of such tests and consequences thereon shall be binding on the contractor.

60. Materials used on work without prior inspection and testing (where testing is necessary) and without approval of the Engineer-in-Charge are liable to be considered unauthorized, defective and not acceptable. The Engineer-in-Charge shall have full powers to require the removal of any or all of the materials brought to site by contractor which are not in accordance with the contract specifications or do not conform, in character or quality to the samples approved by the Engineer-in-Charge. In case of default on the part of the contractor in removing rejected materials, the Engineer-in-Charge shall be at liberty to have them removed at the risk and cost of the contractor.

61. The contractor shall make his own arrangement of water required for execution of work and get the water tested at his own cost with regard to its suitability for use in the works and get written approval from the Engineer-in-Charge before he proceeds with the use of same for execution of work.

62. The work shall be carried out in such a manner so as not to interfere or adversely affect or disturb other works being executed by other agencies, if any.

63. Any damage done by the contractor to any existing works or work being executed by other agencies shall be made good by him at his own cost.

64. The work shall be carried out in the manner complying in all respects with the requirement of relevant rules and regulations of the local bodies under the jurisdiction of which the work is to be executed and nothing extra shall be paid on this account.

65. For completing the work in time, the contractor may have to work in two or more shifts and no claims whatsoever shall be entertained on this account, notwithstanding the fact that the contractor will have to pay to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour regulations and the agreement entered upon and/or extra amount for any other reasons.

66. The contractor shall take all precautions to avoid all accidents by exhibiting necessary caution boards and by providing red flags, red lights and barriers. The contractor shall be responsible for any accident at the site of work and consequences thereof.

67. Quality Assurance Manual (Quality Assurance Plan & Checklist for E &M Service).

(a) Main contractor/Associate shall submit the required quantity of materials as sample for Testing from Govt. / approved private Laboratory.

(b) The decision on testing shall be as per E&M quality checklist of CPWD vide OM No. 51(4)/CE(E)/CSQ/2016/293 (H) dated 31.03.2016 as applicable or as per direction of Engineer in charge and shall be binding on contractor. Contractor shall submit the required size and quantity of samples for the testing.

(c) Department shall send the samples to the testing laboratory & the test results shall directly come to department.

68. All the equipment shall be delivered with (i) Manufacturer´s test certificate, (ii) Manufacturer´s technical catalogues and Installation / Instruction (O&M) manuals. For LED luminaries, the contractor shall also submit the LM-79 test report of LED luminaries from NABL accredited laboratory.

69. Models of the fittings other than that mentioned in list of preferred make may be accepted provided the performance parameters are at par or higher than the model mentioned therein. Nothing extra shall be paid on this account.

70. Scaffoldings & any other T & P required for execution, testing and commissioning of work shall be arranged by the contractor and is included in the cost of work tendered by the contractor.

71. Inspection before Dispatch: All routine tests shall be conducted before dispatch of equipment. No equipment shall be dispatched out from the manufactures premises before such tests are conducted and test result recorded. These test certificates shall be given along the supplyof equipment. The Engineer- In-charge shall, if he so desires inspect and witness the pre-delivery tests. For this purpose, the agency shall give 15 days advance notice. Agency shall arrange for inspection of the department. Department shall bear expenses of its officials for inspection as far as travelling, boarding and / lodging is concerned. However, the inspection shall be done at the discretion of the department without any cost implication but **ROUTINE TEST & TYPE TESTCertificates** shall have to be submitted for all the equipment.

72. Prior to dispatch, all equipment shall be adequately protected & insured for the whole period of transit, storage and erection against corrosion and incidental damages etc. from the effect of vermin, sunlight, rain, heat, humid climate and accidents etc.

73. APPROVAL OF MATERIALS, SHOP FLOOR DRAWINGS AND COMMENCEMENT OF WORK: The contractor shall submit list of makes & Model numbers of all items of equipment and accessories for each Sub Head of work. Catalogues of the equipment to be supplied. Shop floordrawings of each packages/ Sub work shall be submitted separately for approval. It is the responsibility of the tenderer to get the makes, models and shop floor drawings approved by the department before placing of order.

74. Insurance: The agency shall include storage cum erection insurance including third party insurance right from the storage to commissioning and handing over of various equipment. In insurance, the beneficiary shall be Engineer-In-charge at the cost of the agency. All insurance which the agency is required to enter into under the contract shall be affected any authorized general insurance company and the agency shall produce the policies of insurance. In case of any delay in handing over, the insurance cover will be suitably extended by the contractor at hisown cost.

75. Remedy of failure to insure: If the agency fails to effect and keep in force the insurance referred to in the preceding sub-clause and in case of unforeseen eventuality of theft/damage etc. to any material, the contractor only shall be held responsible and necessary rectification/replacement has to be done by contractor himself.

76. Quality of material and workmanship: All parts of the equipment shall be of such design, size and material so as to function satisfactorily under all rated conditions of operation. All components of the equipment shall have adequate factor of safety. The work of fabrication andassembly shall conform to sound engineering practice and on the basis of "Fail Safe Design". The mechanical parts subject to wear and tear shall be easily replaceable type. The construction of the equipment shall be such as to facilitate easy operation, inspection, maintenance and repairs. All connections and contacts shall be designed to minimize risk of accidental short circuits caused by animals, birds and vermin etc. All identical items and their component parts should be completely interchangeable including spare parts.

77. Inspection and testing at Factory and site: The department reserves the right to inspect the equipment and get it tested at factory itself for which the Contractor has to give 15 day's notice for inspection. The travelling cost of Officers will be borne by the Department. The installation shall be subject to necessaryinspection during every stage of erection, by the Engineer In-charge or his authorized representative. The successful bidder shall provide all facilities and assistance for the purpose. The completed installation shall be inspected and tested by the Engineer-in charge in the manner as will be laid down by department. All instruments and facilities necessary for the tests shall be provided by the agency.

78. All electrical & mechanical fittings / fixture / appliances, to be provided for the work, where BEE certification is available should have **5-star rating (of BEE).**

79. QUALITY ASSURANCE: The Contractor shall make available, on request from the Department, for record, copies of challans, cash memos, receipts and other certificates, if any, vouchers towards the quantity and quality of various materials procured and the same shall be kept in record. These shall also provide information on the name of the manufacturer, manufacturer's product identification, manufacturer's instructions, warning, date of manufacturing and test certificates from manufacturers for the product for each consignment delivered at site, shelf life, if any, for the department to ensure that the material have been procured from the approved source and of the approved quality, as directed by the Engineer-in-Charge.

80. Storage and safe custody of all materials shall be the sole responsibility of the Contractor. Nothing extra shall be payable on this account. This shall include cost of painting of the entire installation. The major equipment's shall be factory final finish painted. The agency shall be required to do only touch up to the damages caused to the painting during transportation, handling & installation at site, if there is no major damage to the painting. However, hangers, supports etc. of bus trunking & cable tray etc. shall be painted with required shade including painting with two coats of anticorrosive primer paint or pressurized paint for touch up of powder coated equipment atsite.

81. The scope of works includes the on job technical training of two persons of department at site. Nothing extra shall be payable on this account.

82. Interpreting Specifications: In interpreting the specifications, the following order of decreasing importance shall be followed in case of contradictions:

i) Nomenclature of items as per Schedule of Quantities
ii) Special/Additional Conditions
iii) Particular Specifications
iv) Architectural/Structural drawings
v) CPWD Specifications including upto date correction slips.
vi) CPWD General Conditions of Contract (2023) for Construction works including correction slips issued up to last date of submission of bid including extensions if any.
vii) Indian Standards Specifications of B.I.S.
viii) ASTM, BS, or other foreign origin code mentioned in tender document.
ix) Manufacturer's specifications and as decided by the Engineer-in-Charge.
x) Sound Engineering practices or well-established local construction practices

FORM –A

CONSENT LETTER FROM ELIGIBLE ASSOCIATE AGENCY OF MINOR COMPONENT OF WORK

Name of work: .

I / We hereby give my consent to associate with M/s……., for Executing the minor component of work of …….…….....
(Mention category).

I / We will execute the work as per specifications and conditions of the agreement and as per directions of the Engineer –in-Charge for the corresponding minor work till the completion of the work.

I / We will be responsible for necessary action to handover the installations and for rectification of defects and repair during the maintenance / warranty period.

Also, I / We will employ full time technically qualified Engineer / supervisor for the minor component of the work as required for the work. I / We will attend inspection of officers of the department as and when required.

Date:

Signature with date of Major component Contractor Address	Signature with date of Associate/Minor Component Contractor Address
Witness with address (From major component contractor side)	Witness with address (From minor component contractor side)

FORM – B

PROPOSAL FOR ELIGIBLE ASSOCIATING AGENCIES FOR MINOR COMPONENTS OF WORK

I/we hereby propose the following agencies as mentioned against each for executing corresponding minor components of work. Their consent letters are also attached.

Sl. No	Name of Associated Contractor	Category and class of registration	Enlistment copy / Completion Certificates attached	Monetary Limit of work	Validity of registration	Consent Letter Attached (Yes/No)
1)						

Note: Self-Attested photocopies of enlistment order, valid electrical contractor license, work experience certificates of each agency for each component of E&M work shall be submitted.

Signature of contractor

FORM "C"

AFFIDAVIT OF MEMORANDUM OF UNDERSTANDING (MOU)

(to be submitted for each and every E&M component)

M/s. (Name of the firm with full address) ……Enlistment Status (Valid Upto) ……..(Henceforth called the main Contractor)

M/s. (Name of the firm with full address)…….. Enlistment Status (Valid Upto)…….(Henceforth called Associated Contractor)

For the execution of E &M component Works

Name of work: ……

We state that M.O.U between us will be treated as an agreement and has legality as per Indian Contract Act (amended up to date) and the department (CCU) can enforce all the terms and conditions of the agreement for execution of the above work. Both of us shall be responsible for the execution of work as per the agreement to the extent this MOU allows. Both the parties shall be paid consequent to the execution as per agreement to the extent this MOU permits. In case of any dispute, either of us will go for mediation by the Engineer In charge. Any of us may appeal against the mediation to the Chief Engineer, ……..... His decision shall be final and binding on both of us.

We have agreed as under:

The Associated Contractor will execute all E & M works in the wholesome manner as per terms and conditions of the agreement.

The Associated Contractor shall be liable for disciplinary action if he fails to discharge the action(s) and other legal action as per agreement.

All the machinery and equipments, tools and tackles required for execution of the E & M works, as per agreement, shall be the responsibility of the Associated Contractor.

The site staff required for the E & M work shall be arranged by the Associated Contractor as per terms and conditions of the agreement.

SIGNATURE OF MAIN CONTRACTOR	SIGNATURE OF ASSOCIATED CONTRACTOR
Date:	Date :
Place:	Place:
Witness with address (From major component contractor side)	Witness with address (From minor component contractor side)

UNDERTAKING LETTER FROM MANUFACTIRERES OF LED FITTINGS
(ON THEIR LETTER HEAD)

We hereby agree that:

1. All the LED fittings supplied by us are guaranteed for five years including drivers from the date of handing over.

2. In case of discontinuation of model and non-availability of spares, we will replace the fittings with equivalent/ high end model in case of manufacturing defect during the warranty period of 5 years.

For M/S ……..,

……
(Authorized signatory of manufacturer of LED luminaries)

Counter Signature,

Major contractor

LIST OF PREFERRED MAKES OF MATERIALS

Acceptable makes of materials to be used in the work are enclosed. In case of non-availability of these makes, the Superintending Engineer, CCU may allow use of alternative makes on the recommendations of Engineer-in-charge. Only BIS marked materials in the list shall be used in the work. Non-BIS marked materials may be permitted by the Engineer-in-charge only when BIS marked materials are not manufactured. If approved make/brand of any material is not given in the list, the same will be approved by the Superintending Engineer, CCU on the recommendations of Engineer-in-charge.

Sl. No.	Items	Makes
	Electrical Installations	
1	PVC insulated FRLS copper conductor single core cable	Polycab/Finolex/ Havells
2	MS Conduit and its Accessories	AKG/BEC / NIC
3	PVC Conduit and its Accessories	BEC/ Precision/ Norpack
4	G.I. Race way	Legrand/ MK (Honey well)/ OBO
5	Modular Switch & Socket/ USB charger/ Telephone socket / TV socket / Fan Regulator	Legrand (Arteor)/ / Schneider (Unica pure) / MK - Blenz Plus
6	Anchor fastener	Hilti/ 3M/ Fischer
7	Fan Box (with rod & hook assembly)	For concealed: Cast iron/GI Continuously welded
8	1.1 KV Grade XLPE Power Cable	Polycab/ RR Kabel/ Havells
9	1.1 KV Grade Fire survival cable	Polycab/ RR Kabel/ Havells
10	Cable Lugs and Gland	Commet / Gripwel / Dowell/ Jainsons/Raychem
11	Cables (Control, Signal & communication, Coaxial system cable)	Polycab/ KEI/ Havells/ Grandlay
12	Cat–6 UTP/CAT-6A,UTP/ STP Cable, Fibre Optics cable	Legrand /PANDUIT/COMMOSCOPE
13	GI Perforated Cable Tray	Slotco / Indiana / AKG/BEC
14	UPVC/ HDPE Pipe/DWC	Duraline/ Rex/ Tirupati
15	MCB , RCCB	Legrand (DX3) / L&T(Exora) / Siemens (Betagard) /Schneider (Acti-9)/ Havells
16	MCCB	Siemens(3VA) Schneider NSX / L&T (D-Sine) / Legrand (DPX3)
17	MCB DB	Legrand (Ekinox) / Hager / Siemens (Betagard) /Schneider (Acti-9)
18	Bus Bar aluminium	Hindalco / Nalco
19	Ceiling fan / Exhaust fan / kitchen fresh air/ wall fan	Havells / Crompton/ Usha
20	LED Indoor Luminaires	Philips/ Regent/ Lighting Technology

21	LED Decorative light Luminaires	Philips/ Regent/ Lighting Technology
	UPS	
1	UPS	Schneider (APC) / Emerson (vertiv)/ Numeric/ Enertech/ Labotek
2	Battery	Exide/ Amaron/ TATA Green
	EPABX	
1	EPABX system	SYNTEL NEXGEN/ Matrix
2	Server	Dell / HP/ IBM / Lenovo
3	Rack	Panduit/ APW/ HP/ Poweride/ Protection Engineering
4	Caller ID Phone	Beetel/ Coral Telecom
5	Telephone cable	Havells/ Polycab/ KEI
	HVAC	
1	Split Type AC	Daikin/ O-General/ Carrier
2	Refrigerant Piping	Mandev / Mexflow / Rajco/RR SHRAMIK
3	Closed cell Nitrile rubber insulation/ EPDM insulation	Armaflex /Aerocell / ALP
	AUDIO-VIDEO	
1	LED DISPLAY	SAMSUNG/ LG/SONY/PANASONIC
2	SPEAKERS	QSC/ BOSE/ QUEST
3	AMPLIFIER	QSC/ QUEST/ BOSE
4	DIGITAL SIGNAL PROCESSOR	QSC/ QUEST/ BOSE/ BIAMP
5	BOUNDARY MICROPHONE	SHURE/QSC/DPA
6	GOOSENECK MICROPHONE	SHURE/DPA/SENNHEssISER/TELEVIC
7	HANDHELD MICROPHONE	SHURE/ BOSCH/ SENNHEISER/ QSC/AUDIO-TECHNICA
8	LAVIER MICROPHONE	SHURE/ BOSCH/ SENNHEISER/ QSC/ AUDIO-TECHNICA
9	PODIUM	Fidato / Globus/ Ordain/ATDSC
10	MATRIX SWITCHER	KRAMER/LIGHTWARE/ EXTRON/ CRESTRON.
11	DISTRIBUTION AMPLIFER	KRAMER/LIGHTWARE/ EXTRON/ CRESTRON.
12	TRANSMITTER & RECEIVER	KRAMER/LIGHTWARE/ EXTRON/ CRESTRON.
13	TABLE MOUNT ENCLOSURE	KRAMER/CRESTRON/ LEGRAND
14	PTZ CAMERAS	SONY/LUMENS/VADDIO/QSC
15	CONTROL TOUCH PANEL AND CONTROL SYSTEM	CRESTRON/QSC/KRAMER
16	NETWORK SWITCH	HPE / CISCO/ NETGEAR/ JUNIPER
17	EQIPMENT RACK	APW PRESIDENT /VALRACK/ RITTAL/ POWERIDE/ PROTECTION ENGINEERING
18	SPEAKER & MICROPHONE CABLE	KRAMER/CRESTRON/EXTRON/LIGHTWARE

19	HDMI CABLE/ VGA CABLE, PATCH CABLES, CONTROL CABLE/ ACTIVE USB CABLE	KRAMER/CRESTRON/EXTRON/LIGHTWARE

Note:

1. The contactor shall submitted samples & technical submittals of all material before procurement for approval & shall procure after approval directly from manufacturer and the Authorized dealers only.
2. Material not specified in attached list of acceptable makes shall be got approved from Engineer-in-charge & consultant before use on work. Decision of Engineer-in-charge & Consultant shall be final in this respect.
3. Either the model shall be got approved or Sample shall be submitted for approval by Engineer in Charge before confirming order to supplier.
4. Contractor shall normally not use more than two (except for Equipments: Lifts, DG Set, Transformer, HVAC Equipments, UPS, where only One make is allowed) out of the above preferred makes.
5. For any item not covered in the above list, the contractor shall get the samples and make approved from the Engineer-in-charge before the supply is made.
6. All items shall confirm to e-waste management and handling rules 2011issuedbyMin. of Environment and Forest, Government of India or ROHS (restrictions on use of Hazardous substances)/WEEE compliant as per EU norms or American norms. Certificate shall be submitted wherever applicable.
7. The material shall not be older by more than Six months from date of supply at site.
8. Proof of dispatch from factory/dealer shall always be submitted to Engineer-in-charge for verification.

SCHEDULE OF QUANTITY FOR ELECTRICAL WORK

SCHEDUE OF QUANTITY (E&M WORK)

Name of work: Renovation of Environmental Laboratory, CPCB, Shillong.
(Sh:- Electrical and Mechanical works)

S.NO	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	SUB HEAD -1 (Wiring)				
1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.				
a	Group C	43	Point	1467.00	63081.00
2	Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point (without independent switch etc.) with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed PVC conduit, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required.				
a	Group C	18	Point	858.00	15444.00
3	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed medium class PVC conduit along with 1 No 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	589	Point	334.00	196726.00
4	Wiring for light/ power plug with 4X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed PVC conduit alongwith 2 Nos. 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	1067	Point	537.00	572979.00
5	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required				
a	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	130	Metre	233.00	30290.00
b	2 X 10 sq. mm + 1 X 6 sq. mm earth wire	22	Metre	570.00	12540.00
c	4 X 6 sq. mm + 2 X 6 sq. mm earth wire	20	Metre	754.00	15080.00
d	4 X 10 sq. mm + 2 X 6 sq. mm earth wire	20	Metre	1005.00	20100.00
e	4 X 16 sq. mm + 2 X 6 sq. mm earth wire	25	Metre	1365.00	34125.00
6	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel/ PVC conduit as required.				
a	6 x 1.5 sq. mm	26.00	Metre	181.00	4706.00

7	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.				
a	20 mm	100	Metre	128.00	12800.00
b	25 mm	200	Metre	145.00	29000.00
8	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as required.				
a	1 or 2 Module (75mmX75mm)	24	Each	298.00	7152.00
b	4 Module (200mmX75mm)	2	Each	343.00	686.00
b	6 Module (200mmX75mm)	15	Each	402.00	6030.00
c	8 Module (125mmX125mm)	4	Each	454.00	1816.00
9	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
a	5/6 amps switch	62	Each	103.00	6386.00
b	3 pin 5/6 amp socket outlet	40	Each	122.00	4880.00
c	15/ 16 amp switch	5	Each	156.00	780.00
d	6 pin 15/16 amp socket outlet	5	Each	197.00	985.00
e	Telephone socket outlet	24	Each	148.00	3552.00
10	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 2 Nos. 3 pin 5/6 A modular socket outlet and 2 Nos. 5/6 A modular switch, connections etc. as required. (For light plugs to be used in non-residential buildings).	48	Each	676.00	32448.00
11	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required.	26	Each	586.00	15236.00
12	Supplying & fixing suitable size GI box with modular plate and cover in front on surface or in recess including providing and fixing 25 A modular socket outlet and 25 A modular SP MCB, "C" curve including connections, painting etc. as required.	25	Each	727.00	18175.00
	MCB DB				
13	Providing and fixing following rating and breaking capacity and pole MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required.				
a	100 Amp, 30KA, FPMCCB	2	Each	7723.00	15446.00
14	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But				

	without MCB/RCCB/Isolator)				
a	4 way (4 + 12), Double door	3	Each	4091.00	12273.00
b	8 way (4 + 24), Double door	5	Each	5967.00	29835.00
15	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 volts, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 amps tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCB's (but without MCB's and incomer) as required. (Note: Vertical type MCB TPDB is normally used where 3 phase outlets are required.)				
a	4 way (4 + 12), Double door	1	Each	7512.00	7512.00
b	8 way (4 + 24), Double door	1	Each	10165.00	10165.00
16	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
a	Single pole	156	Each	256.00	39936.00
b	Triple pole	12	Each	1007.00	12084.00
c	Triple pole and neutral	8	Each	1228.00	9824.00
17	Supplying and fixing 30 amps, 415 volts, TPN industrial type, socket outlet, with 4 pole and earth, metal enclosed plug top along with 30 amps "C" curve, TPMCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.	1	Each	4107.00	4107.00
	EARTHING				
18	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. (but without charcoal/ coke and salt) as required.	2	Set	12622.00	25244.00
19	Providing and fixing 25 mm X 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode including connection with brass nut, bolt, spring, washer excavation and re-filling etc. as required.	20	Metre	1551.00	31020.00
20	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	60	Metre	1162.00	69720.00
21	Providing and fixing earth bus of 50 mm X 5 mm copper strip on surface for connections etc. as required.	1.00	Metre	2113.00	2113.00
	LIGHTING FIXTURES AND FAN				
22	Supply, Installation, Testing and Commissioning of Round recessed Type Downlighter having Aluminium/CRCA and PC diffuser with min. 1900 lumens output, Efficacy not less than 100 lm/watt, THD<10%, PF>0.95, CRI>=80, 5700/6500K CCT and Min. service life of 50000 Hrs @ L70B50	18	Each	2786.00	50148.00

	complete etc as required at site. (With 5 Year Warranty.)				
23	Supply, Installation, Testing and Commissioning of recessed Type flat panel luminaire (2'X2') having Aluminium/CRCA and Opal/ Prismatic diffuser UGR<19 with min. 3600 lumens output, Efficacy not less than 100 lm/watt, THD<10%, PF>0.95, CRI>=80, 5700/6500K CCT and Min. service life of 50000 Hrs @ L70B50 complete etc as required at site. (With 5 Year Warranty.)	59	Each	3950.00	233050.00
24	Supply, Installation, Testing and commissioning of ventilating fans in the existing window 250mm sweep 230 Volt AC i/c connection to the existing ceiling rose etc. as required.				
a	250 mm	2	Each	2024.00	4048.00
25	Supplying, Installation, Testing & Commissioning of Hi-Speed wall mounted fan of sweep 400/ 450 mm Sweep, 230V AC on wall i/c connection testing, commissioning etc. as required.	21	Each	5239.00	110019.00
	LT CABLES & CABLE TRAY				
26	Supplying of following size Al. conductor XLPE insulated and PVC sheathed armoured power cable of 1.1 KV grade as required as per IS:7098 (Part-I)1988 as amended up to date				
a	3.5 Core 35 Sq.mm	30	Mtr	540.00	16200.00
b	4 Core 25 Sq.mm	30	Mtr	457.00	13710.00
27	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required.				
a	Upto 35 sq. mm (clamped with 1mm thick saddle)	60	Mtr	55.00	3300.00
28	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				
a	3 X 35 sq. mm (28mm)	4	Nos	351.00	1404.00
b	4 X 25 sq. mm (28mm)	4	Nos	315.00	1260.00
	Perforated Cable Trays				
29	Supplying and installing following size of perforated pre-painted M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required.				
a	150 mm width X 50 mm depth X 1.6 mm thickness	15	Mtr.	604.00	9060.00
	Total				**1816475.00**
	Add GST @ 6.33% on DSR amount			1389300.00	87942.69
	Total SH:- I				**1904417.69**
	SH:-II (Split AC)				
30	Supply, installation, testing and commissioning of inverter type Split Cooling units as per specifications and complete as required. Outdoor				

	units with rotary/scroll compressor air-cooled condenser coil with fan, casing, MS-stand, cabling and earthing as required. Indoor units shall consist of centrifugal fan with motor, dx-cooling coil of copper tubes and aluminium fins, casing, filter, full charge of CFC free gas and oil, control wiring, Standard 3m interconnecting refrigerant piping between indoor and outdoor unit, cooling thermostate control wiring & corded remote control. (the warranty 1 year for full machine, 5 year for PCB & 10 year for compressor)				
	Rated Cooling capacity - 18000/9000 (5390-19620) Btu/h				
	Star Rating - 5 Star invertor				
	Rated ISEER - 5.13 (min.)				
	Rated power supply - 1p/ 50Hz/230V				
	Refregrant - R32				
	Note : Aluminium Fins and copper tubes of Air Cooled Condenser along with copper tubing / piping with all joints and U-Bends.				
a	1.5 TR	4	Nos.	48934.00	195736.00
31	Providing and fixing of uPVC drain pipe of 6 Kg/cm2 pressure rating complete, fittings, supports, valves as per specifications & drawings.				
a	25 mm dia	12	Mtrs.	178.00	2136.00
b	32 mm dia	12	Mtrs.	258.00	3096.00
	Total SH:-II				**200968.00**
	SH:-III (UPS)				
32	Supplying installation testing and commissioning of following capacity **IGBT based, microprocessor based Online UPS System with five years warrantee** having pollution free instantaneous true sinewave control and with inbuilt isolation transformer, 3 Phase AC input and 3 phase AC output, LCD display & indication for various electrical parameters, LED indication with alarm for major fault, provision for remote indication and provision of communication to BMS system through RS 485/RS232 port etc. The UPS system shall be as per detailed specifications and shall be complete with parallel redundant kit, battery bank for providing 30 minutes backup time with SMF batteries having minimum 2 years warrantee, with all connections interconnections cables, MS stand for battery bank etc. complete as required				
	Specifications of UPS				
	b) Technology: True Online dual conversion with PWM IGBT & IGBT Rectifier				

	Technology (Pure Sine Wave)				
	Input Parameters				
	a) Input Voltage range: 415V ± 15%, 3-Φ AC Supply				
	b) Rated frequency: 50Hz/ 60 Hz ± 10%				
	c) UPS Power factor: 0.99 or better lagging				
	Output Parameters				
	a) Rated Voltage: 415 V ± 10%				
	b) Frequency: 50Hz ± 0.5Hz				
	c) Load power factor range: 0.9 or better				
	d) Output wave form: Pure sine wave				
	e) Overload capacity: 150% of rated load for 1 minutes 125% of rated load for 10 minutes				
	f) Harmonic distortion: with Linear load ≤2%				
	g) Permitted non-linera load <5%				
	h) Crest factors: 3:1				
	General Parameters				
	a) Ambient operating temp: 0-40º C or better				
	b) Relative Humidity: ≥ 90% (Non-condensing) or better				
	c) Noise Level: ≤ 60 db at 1.5m distance or better				
	d) Overall efficiency: 94% or better				
	e) Communication port : RS232 / RS485				
	f) Cooling: Forced Cooling				
	g) Indications: Main ON, Inverter ON, Battery ON, Low battery, Inverter Overload, Phase fail (or as per manufacturer's standards)				
	h) Bypass: Manual/Static				
	i) Degree protection - IP20				
	j) Operating temprature: 0-40^{0}C				
	k) Battery Type: VRLA - AGM Sealed Lead Acid, Maintenance Free.				
	l) Safety: IEC 62040-1				
a)	15 KVA	1	Set	390320.00	390320.00
	Total SH:-III				**390320.00**
	SH:-IV (Audio-Video Conferencing System)				
33	SITC 85/ 86" or Higher, LED Back Lit Panel, Panel Technology -(IPS/ VA), Native Resolution-3840 x 2160 (UHD),Brightness -440cd/m2 or better, Contrast Ratio- 1100 : 1 or better, Dynamic CR- 400,000 : 1 or better, Operating System-WebOS/ Tizen/ Android, Orientation -Portrait & Landscape, Viewing Angle(H x V) -178 x 178,Response Time- 16 ms or better, Operation Hours- 24 Hrs , Connectivity - Input Ports -Digital	1	Nos.	231491.00	231491.00

	HDMI(3), Display Port(1), External Control RS232C(1), RJ45(1), IR(1, Internal), USB -1, Output Ports- Audio Out-1, AUDIO -Audio Power 20W(10W x 2), Additional feature Inbuilt : Internal Memory 8 GB or better, Wi-Fi, Screen Sharing feature with all devices, Media Player, SNMP Support, Temperature Sensor, Auto Brightness Sensor, Local Key Operation, USB Plug & Play, Fail over, Wake on LAN, Media Player, Picture in Picture (Optional), Environment Conditions ,Operation Temperature- 0 °C to 40 °C or better, Operation Humidity - 10 % to 80 % or better, POWER - Power Supply 100- 240V~, 50/60Hz,Power Type- Built-In Power, Speakers - 20W(10W x 2) , Power Supply 100 – 240 V, 50/60 Hz, Certifications UL, FCC,BIS, Warranty - 5 years, Wall mount accessories as per site requirement, Remote control, Standard cable etc complete as required.				
34	SITC of High quality compact two way / Full range Ceiling Mount Loudspeaker with Low Impedance Power 20 W @ 8/16 Ohm and shall offer switchable wattage 4W / 8W / 16W @ 70/100V which can be used as per site requirement, Frequency Range 85Hz - 19KHz, Coverage 120º conical, Sensitivity 86 dB or better @ (1W/1m), Max SPL 98dB (104dB Peak), Integral multi tapping, Steel Back Can for protection, Material (front baffle) ABS, Material (grille) Iron. The loudspeaker shall be UL listed and EN certified. (On site warranty 5 years)	2	Pair	23547.00	47094.00
35	SITC of integrated high impedance Class D, with Amplifier Power as 1 x 90 W @ 70/100 V ; Frequency Response - 60 Hz - 20 kHz (+0/-3 dB, @ 1 W reference 1 kHz) ; THD+N - ≤1 % (at full rated power); Channel Separation (Crosstalk) - ≤-60 dBV (below rated power, 1 kHz); A/D and D/A Converters - 24-bit / 48 kHz; Audio Latency - 10.4 ms - (any input to speaker output or aux output) ; Maximum Input Level : +10 dBV or better. 1 balanced page input, I balanced mic/line input, 2 unbalanced line; built in loudspeaker EQs. Shall include output for expansion amplifier and remote controller (Wired) for source as well as volume control. (On site warranty 5 years)	1	Nos.	73199.00	73199.00

36	SITC of Central Conference Controller with Recording & Web Server, Conference Controller with built-in Digital Signal Processing, Control upto minimum 50 Discussion Unit and expandable upto 150 Discussion Unit by configuring multiple Controller Unit, Controller unit with 4 Bus Connections (4 branches or 2 closed loops) for redundancy mechanism, Control & Configure the Controller via the Integrated Web Server, Two USB Connections to connect USB Storage Device for Direct Recording of the Meeting. The Second USB Storage Device will take over automatically inscenaro the First USB Storage get full, Camera Control Integration Capability, Controller with LCD display to implement several Conference Mode: Direct access, Request, Push to talk, FIFO, Vox control, Selectable Voice Activation, Volume control 0 dB to -46 dB + "OFF, Digital Acoustic , Feedback Reduction, With Audio Input & Output for connectivity with external sysytem like amplifier, wireless microphone & audio/video conference system, Audio Quality 16Bit digital with Power Saving Mode allows controller to sleep state if it has been left ON, Connectivity: Balanced XLR input, 1 Unbalanced RCA input, 2 Unbalanced RCA outputs, 4 Bus connections (4 branches or 2 loops), LAN connection, 2 USB connections,1 Lockable Power connection, Headphone Port, Certification: CE (On site warranty 5 years)	1	Nos.	242889.00	242889.00
37	SITC of Flush Mount Chairman Discussion Unit with built-in Digital Signal Processing, Unit with Priority and Next-in-Line Configuration, Priority button silences all delegate microphones and allows only the chairperson to speak, Next-in-line button gives the floor to the next speaker in a waiting list of speakers who requested to speak, Shielded microphone, immune to mobile phone interference, Unit with Bi color bar indicator, Loop-through, daisy-chain cabling, Compatible Screw Lock Microphone of lenght 400mm, Different LED Signalling for Mic On/Off OR Request-to-Speak Push Button, Audio Quality 16Bit digital, Frequency Response: 25 Hz-15,000 Hz (± 3 dB), Microphone with 400 Gooseneck Length Polar Pattern: Unidirectional, Cardioid, Max SPL @	2	Nos.	61106.00	122212.00

	1kHz: 110 dB SPL (1% THD+N), S/N Ratio: > 67 dB(A), sensitivity: (-40.5±2) dBV @ 1Pa, 1KHz, Microphone with Ring Indicator to light up Red when active and Green when in Request, Connection: Screw Lock, Material: Brass, Certification: CE (On site warranty 5 years)				
38	SITC of Flush Mount Delegate Discussion Unit with built-in Digital Signal Processing, Unit with Microphone On / Off Button, Shielded microphone, immune to mobile phone interference , Unit with Bi color bar indicator, Loop-through, daisy-chain cablin, Compatible Screw Lock Microphone of length 400mm, Audio Quality 16Bit digital, Frequency Response: 25 Hz-15,000 Hz (± 3 dB), Microphone with 400 Gooseneck Length, Polar Pattern: Unidirectional, Cardioid Max SPL @ 1kHz: 110 dB SPL (1% THD+N), S/N Ratio: > 67 dB(A), sensitivity: (-40.5±2) dBV @ 1Pa, 1KHz, Microphone with Ring Indicator to light up Red when active and Green when in Request, Connection: Screw Lock, Material: Brass, Certification: CE (On site warranty 5 years)	4	Nos.	59581.00	238324.00
39	SITC of Mini Audio DSP with onboard 8x8 Dante™ audio networking, shall have minimum 4input, 4 output, USB, GPIO, VOIP and POTS, 8Channel AEC. Dynamic Range: 110dB or Better, Sampling Rate: 48kHz or Better, A/D-D/A Converters: 24/32-bit or Better, includes surface-mount bracket complete as required at site. (On-site warranty 5 years)	1	No.	302194.00	302194.00
40	SITC of PTZ camera that should support minimum Full HD resolution: 1920x 1080P with a frame rate up to 60fps, Lens: 1- 2/8" high-quality CMOS sensor (2.07MP), Optical Zoom: 20x providing a horizontal field of view range between 6.3° (tele) to 72.5° (wide), Multiple AV Outputs: Ability to Send Simultaneous Audio and Video outputs at the same time - HDMI, SDI, USB3.0 and LAN ports (On site warranty 5 years)	1	No.	254307.00	254307.00
41	SITC of 8-Port PoE switch Ceiling/wall mounted Wireless Network PoE Access Point having, Power over Ethernet (PoE), Data Rate Upto 850Mbps @ 5Ghz band, with Supports of WPA2™ - WiFi security for more protection, 1 x Gigabit(10/100/1000BASE-T) port for backhaul to the wired network	1	No.	27974.00	27974.00

	complete (On site warranty 5 years)				
42	SITC of table mount cable manager with power and LAN, pass thru holes for HDMI-USB and USB-C connecting cables	1	No.	20484.00	20484.00
43	SITC of Undertable HDMI- USB Switcher with 1 HDMI input, 1 USBC input and 1 HDMI output; USB 3.0 hub built in. When switching between the USB-C input or HDMI + USB-B input, the peripheral devices connected to 2 x USB-A should switch between the inputs. Complete Plug and Play, NO additional driver or software required to be recognized by the computer. USB-C supports ALT-DP video, data and power charging to 40 watts. Controllable via front panel buttons & RS232.Built-in EDID management. Supports HDMI 2.0 and HDCP 2.2. Balanced analog audio for audio de-embedding. The USB 3.2 Gen1 USB Type C cable is required for USB-C connectivity. This switcher supports video resolutions up to 4Kx2K@60Hz 4:4:4, HDR, and multichannel audio (On-site warranty 5 years)	1	No.	47001.00	47001.00
44	Supply and laying of 2 Core 16 AWG high-quality twisted pair speaker cable designed for connecting speakers and amplifiers etc complete as reqd.	50	Mtrs.	78.00	3900.00
45	Supply and fixing of 10m long USB 3.1 Gen1 SuperSpeed Active Extension Cable TypeA/male to TypeA/femal	2	Mtrs.	13536.00	27072.00
46	Supply and fixing of 22 AWG stranded high-conductivity bare copper conductors, PVC insulation, with shield, PVC jacket.	10	Mtrs.	78.00	780.00
47	Supply and fixing of 10m Active optical HDMI Cable with HDMI 2.0 or better, 18GBPS bandwidth, HDCP 2.2 compliant	1	No.	21988.00	21988.00
48	Supply and fixing of 1.8m HDMI Cable with HDMI 2.0 or better, 18GBPS bandwidth, HDCP 2.2 compliant.	4	Nos.	1647.00	6588.00
49	SITC of 13th Gen Intel® Core™ i5-1335U (12 MB cache, 10 cores, 12 threads, up to 4.60 GHz Turbo), Windows 11 Home Single Language, English, Intel® UHD Graphics, 8 GB: 1 x 8 GB, DDR4, 3200 MT/s, 512 GB, M.2, PCIe NVMe, SSD, 27-inch FHD (1920 x 1080 Narrow Border Infinity NTCH Display with Wide Viewing Angle and Microsoft office licence for three years. (On-site warranty 5 years)	1	No.	76205.00	76205.00

50	Supply, installation, testing and commissioning of 18U pre-wired Audio Equipment's Rack front lockable glass door, fan tray for cooling, caster wheels base, main panel with spike buster, individual fuse power supply unit, including all internal wiring, etc as required	1	No.	25067.00	25067.00
51	Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc as required.				
a	1 or 2 Module (75mmX75mm)	4	Each	298.00	1192.00
52	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
a	RJ 45	4	Each	715.00	2860.00
53	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed steel/ PVC conduit as required.				
a	1 run of cable	185	Metre	57.00	10545.00
b	2 run of cable	60	Metre	96.00	5760.00
	Total				**1789126.00**
	Add GST @ 6.33% on DSR amount			**17497.00**	**1107.56**
	Total SH:-IV				**1790233.56**
	SH:-V (EPABX system)				
54	SITC of EPABX system (Analoge Telephone system) extendable upto 240 ports etc as required i/c dial conference system, voice guide auto attendance system, Caller line identification - internal & external on all extensions, Multiple level voice DISA with auto attendant facility & details of incoming call etc. as required. (On site 5 years warranty)	1	Job	68116.00	68116.00
55	SITC of MDF Krone Box with 50 pair Krone module etc. as required. (On site 5 years warranty)	1	Job	3132.00	3132.00
56	SITC of telephone instruments set etc. as required.	25	Nos.	496.00	12400.00
57	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmoured telephone cable in the existing surface/ recessed steel/ PVC conduit as required.				
a	2 Pair	450	Metre	38.00	17100.00
	Total				**100748.00**
	Add GST @ 6.33% on DSR amount			**17100.00**	**1082.43**
	Total SH:-V				**101830.43**
	Total (I+II+III+IV+V)				**4387769.68**
	Add L. Cess @ 1%				**43877.70**
	Total				**4431647.38**
	Say				**4431647.00**

CIVIL CONSTRUCTION UNIT					
NIT No: 02/2024-25/SE/CCU/CED-IV/Shillong Recall3					
Name of work: Development of Environmental Laboratory at CPCB Regional Directorate - Shillong.					
SCHEDULE OF QUANTITY					
Name of the Contractor					
Sl. No.	**Name of component**	**Estimated cost (Rs.)**	**Percentage above or below the estimated cost**	**% in Figures**	**Total Cost (Rs.)**
1	2	3	4	5	6
1	**Civil + E&M Works**	**1,60,67,548**	*	*	*
	Total	**1,60,67,548**			

:*- To be filled online in bid document.

1) The Column Nos. 4 & 5 are mandatory to be filled by the bidders / tenderers. If these columns are left blank, the tender become invalid.

2) The amount in figures in column No.6 shall appear automatically corresponding to the percentage quoted in column No.4 & 5.

3) The tenderer is required to quote the percentage only above or below or at par with the estimated cost to cover all the rates of item covered under the respective packages.

4) The percentage shall be written in 2 (two) places of decimal.

5) If the percentage selection in column No 4 is "At Par", by default the percentage will be considered as "Zero" only. In other words, if "At par" is selected in column No.4, then no need to fill column No. 5

भारत सरकार
Government of India
पर्यावरण वन और जलवायु परिवर्तन मंत्रालय
Ministry of Environment Forest and Climate Change

सिविल निर्माण एकक
कार्यपालक अभियंता का कार्यालय,
सी.ई.डी. –IV, कोलकाता, एजेसीबी भारतीय वनस्पति उद्यान,
सीएनएच भवन,'भू' तल , शिबपुर, हावड़ा – 711 103.
टेलीफोन नंबर:- 033-26687054

Civil Construction Unit
Office of the Executive Engineer
CED-IV, Kolkata, AJCB India Botanic Garden
'G' Floor, CNH Building, Shibpur, Howrah – 711 103
E-mail: eeced4ccu-mef@gov.in & eeced4ccu.mef@gmail.com

सं.:54(0006)/का.अभिं./सी.ई.डी. –IV/सि.नि.ए./ कोलकाता /2024-25 /27 दिनांक:28 /06/2024

CORRIGENDUM

Name of Work:- Development of Environmental Laboratory at CPCB Regional Directorate – Shillong.

Nit No.:- **02/2024-25/SE/CCU/CED-IV/Shillong**

Following amendments are being issued to the notice inviting tender of above mentioned work:-

Sl.No.	Reference to NIT, Page no.	Existing Provision	Modified Provision
1.	NIT Page no. 4	**List of Documents to be Scanned and Uploaded within the period of tender submission** 1. Scanned copy of original bank guarantee including e-Bank Guarantee of any commercial bank against EMD	**List of Documents to be Scanned and Uploaded within the period of tender submission** **1.Insurance Surety Bonds, Account payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee (as prescribed) issued by a Commercial Bank**

All other terms & conditions of the NIT shall remain unchanged. This corrigendum shall part of the bid documents.

This issue with the approval of competent authority.

कार्यपालक अभियंता/Executive Engineer
सी.ई.डी-IV, सी.सी.यू /CED-IV, CCU
कोलकाता/ Kolkata.

Copy for information to :-

1. The Regional Director, CPCB, Regional Directorate (North-East), CTO Building, 'G' Floor, Shillong – 739001.
2. The Superintending Engineer, CCU, MoEF&CC, New Delhi – 110 003
3. The Executive Engineer, CED-I, CCU, MoEF&CC, New Delhi – 110 003
4. The Assistant Engineer(C), CED-IV, CCU, Kolkata
5. The Assistant Engineer (E), CED-IV, CCU, MoEF&CC, New Delhi – 110 003.
6. Original NIT
7. Notice Board.

कार्यपालक अभियंता/Executive Engineer