



आत्मा राम सनातन धर्म महाविद्यालय  
ATMA RAM SANATAN DHARMA COLLEGE

ACCREDITED GRADE 'A++' BY NAAC

All India 7<sup>th</sup> Rank by NIRF (MHRD)

(दिल्ली विश्वविद्यालय) (University of Delhi)

धौला कुआं, नई दिल्ली-110021 DHAULA KUAN, NEW DELHI-110021

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24111390 web : [www.arsdcollege.ac.in](http://www.arsdcollege.ac.in)

Ref. No. 115

Dated : 26/05/2026


**NOTICE INVITING E-TENDER**

Tender for "SITC of CRCA steel Lab counters and repair and renovation works of Chemistry labs – 01 & 02" at Atma Ram Sanatan Dharma College has been invited on Central Public Procurement Portal (Government-E-Portal).

Details regarding floated tender are as under: -

Tender Reference Number	CE/DU/2026-27
Tender ID	2026_DU_910327_1
Tender Start Date/Time	26 <sup>th</sup> May, 2026 (06:00 PM)
Tender End date/Time	16 <sup>th</sup> June, 2026 (01:00 PM)
Tender Opening Date/Time	17 <sup>th</sup> June, 2026 (01:30 PM)

Interested agencies having experience of similar works may participate in the tender.

  
26/05/2026.  
Administrative Officer

**NOTICE INVITING TENDERS (NATIONAL COMPETITIVE BIDDING) A.R.S.D. COLLEGE,  
DHAULA KUAN, SOUTH CAMPUS  
UNIVERSITY OF DELHI  
NEW DELHI-110021**

REF.NO. CE/DU/2026-27

Dated- 25<sup>th</sup> May, 2026

**NOTICE INVITING e-TENDER**

1. Online bids are invited from the registration contractor with C.P.W.D./ M.E.S./ Railways/ Delhi PWD/Delhi University in two bid systems for **“SITC of CRCA steel Lab counters and repair and renovation works of Chemistry labs - 01 & 02 at ARSD College, University of Delhi”** Manual / Offline bids will not be accepted.
2. Tender documents may be downloaded from ARSD College, Delhi University website [www.arsdcollege.du.ac.in](http://www.arsdcollege.du.ac.in) (for reference only) and CPPP site <https://eprocure.gov.in/eprocure/app> as per the schedule as given in CRITICAL DATE SHEET as under.

<b>Publishing Date</b>	<b>25<sup>th</sup> May, 2026 (06:00 PM)</b>
<b>Bid Document Download / Sale Start Date</b>	<b>25<sup>th</sup> May, 2026 (06:00 PM)</b>
<b>Estimate Cost</b>	<b>Rs.95,65,151/-</b>
<b>EMD</b> (The EMD should be submitted in the office of Chief Engineer within next working day latest by 1:00 PM from the end date of bid submission over e-portal.	<b>Rs.1,91,303/- EMD declaration as per annexure “A” is also to be uploaded with the bid)</b>
<b>Tender Fee</b>	<b>Rs.1,000/-</b>
<b>Completion Time</b>	<b>30 Days</b>
<b>Bid Submission start date</b>	<b>25<sup>th</sup> May, 2026 (06:00 PM)</b>
<b>Bid Submission end date</b>	<b>15<sup>th</sup> June, 2026 (01:00 PM)</b>
<b>Technical Bid Opening date</b>	<b>16<sup>th</sup> June, 2026 (01:30 PM)</b>
<b>Financial Bid Opening Date</b>	<b>To be intimated later on website</b>

3. Bids shall be submitted online only at CPPP website: <https://eprocure.gov.in/eprocure/app>.

Bidders/Contractors are advised to follow the instructions provided in the ‘Instructions to the Contractors/Bidders for the e-submission of the bids online through the Central Public Procurement Portal for e Procurement at <https://eprocure.gov.in/eprocure/app>’.

Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.

4. Not more than one tender shall be submitted by one contactor or contractors having business relationship. Under no circumstance will father and his son(s) or other close relations who have business relationship with one another (i.e. when one or more partner(s)/director(s) are common) be allowed to tender for the same contract as separate competitors. A breach of this condition will render the tenders of both parties liable to rejection.
5. Bidder who has downloaded the tender from the Central Public Procurement Portal (CPPP) website <https://eprocure.gov.in/eprocure/app> , <https://eprocure.gov.in/epublish/app> **shall not tamper/modify the tender form including downloaded price bid template in any manner**. In case if the same is found to be tempered/modified in any manner, tender will be completely rejected and EMD would be forfeited and Bidder is liable to be banned from doing business with University of Delhi.
6. Intending Bidders are advised to visit ARSD College University of Delhi website [www.arsdcollege.du.ac.in](http://www.arsdcollege.du.ac.in) and CPPP website <https://eprocure.gov.in/eprocure/app> at least 3 days before the closing date of submission of tender for any corrigendum/addendum/ amendment.
7. **Mode of payment for tender /quotation fee:** - The bidder shall furnish the tender /quotation fee of **Rs.1,000/-** online in the following manner:

**STEPS TO BE FOLLOWED FOR ONLINE PAYMENT**

**(Tender Fee/EMD/Performance Guaranty etc. for Tenders of Engineering Department)**

The Agencies are advised to follow the steps given below for online payment of Quotation/ Tender fee.

STEP 1: Connect to “[misconlinefee.du.ac.in](http://misconlinefee.du.ac.in)”

STEP 2: Click on “Miscellaneous fee”

**MISCELLANEOUS FEE**

Name  (Name of Agency)

Email

Mobile

Fee

Item Count  (Item count should always be 1)

Please provide details of the fee (exam type, paper no. etc.)

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STEP 3: The fees selection for Rs 150 is “Tender Fee (upto 1 lakh Tender Value) (Chief Engineer,)”; for Rs. 500 “Tender fee (more than 1 lakh upto 20 lakhs tender value) (Chief Engineer,)” and for Rs.1,000/- “Tender fee (more than 20 lakhs Tender Value) (Chief Engineer,)”

STEP 4: fill up the above details and Type tender ID in “**Please provide details of the fee (exam type, paper no. etc.)**” column (e.g. Tender ID 2019\_DU\_123456\_1)

STEP 5: click on “save”

STEP 6: follow the instructions as per site

**\*Note\*- The e-mail address and mobile number should be functional as after saving the above OTP will be received above mentioned details. In case the payment receipt is not displayed after payment, confirmation/ payment receipt can be received after through “Track your Payment” option.**

Deposit the prescribed Quotation/Tender fee etc. (as inscribed on the Tender /bid) online at the payment Gateway before the bid closure time & date. In case if are unable to get the receipt after payment, you may click on the option “track my payment”.

8. **BID Security / EMD:** The bidder should submit the EMD of **Rs.1,91,303/-** to the office of The Principal Office, ARSD College, University of Delhi -110021. latest by 01:00 PM on the end date of bid submission over e-portal. The bidder should obtain the receipt of the deposition of original EMD as per annexure “B” (the receipt copy is to be furnished and to be filed by the bidder before submission to the concerned office.) The photocopy of the EMD shall be uploaded on the portal.
  - (a) FDR/TDR issued by any Nationalized/Scheduled Bank drawn in favour of “Principal, Atma Ram Sanatan Dharma College, University of Delhi, payable at Delhi.
9. Bids will be opened as per date/time as mentioned above. After online opening of Technical-Bid the financial bid of eligible bidders will be opened and the date and time will be mentioned on the e-portal.

**Performa for Earnest Money Deposit Declaration**

Whereas, I/we..... (name of agency) have submitted bids

for **“SITC of CRCA steel Lab counters and repair and renovation woks of Chemistry labs -01 & 02 at ARSD College, University of Delhi”**

I/we hereby submit following declaration in lieu of submitting Earnest Money Deposit.

- i) If after the opening of tender, I/we withdraw or modify my/our bid during the period of validity of tender (including extended validity of tender) specified in the tender documents,  
and
- ii) If, after the closing date of bid submission on e-portal, I/we failed to deposit the original EMD which was scanned for the above tender within next working day latest by 01:00 PM from the end date of bid submission over e-portal, I/we shall be suspended for one year and shall not be eligible to participated in the bidding process for University of Delhi tenders/ quotations from the date of issue of suspension order.

**Signature of the contractor(s)”**

(The copy of receipt of depositing of Original EMD from the office of the Principal, ARSD College, Dhaula Kuan, South Campus 110021 in the prescribed Performa attached as below)

## **Receipt of deposition of original EMD**

**Receipt no. .... / date .....**)

Name of work: SITC of CRCA steel Lab counters and repair and renovation works of Chemistry labs -01 & 02 at ARSD College, University of Delhi.

1. **Estimated cost: Rs. 95,65,151.0**
- 2.
3. **EDM: Rs.1,91,303/-**
4. **Tender ID No.**
5. **Ref. No.**

Last ate of submission of bid ..... upto ..... Hrs.

1. Name of contractor .....
2. Form of EMD .....
3. Amount of Earnest Money Deposit .....
4. Date of submission of EMD and time .....

Signature,  
Name and Designation of EMD receiving officer along with office stamp  
(to be filled by EMD receiving officer)

## **Content:**

1. Instructions for online bid submission
2. Eligibility Requirements
3. Technical Bid
4. Price Bid Undertaking and schedule / BOQ
5. Scope of work
6. Conditions
7. Special Conditions
8. List of specific makes

## **Instructions for Online Bid Submission:**

The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at: <https://eprocure.gov.in/eprocure/app>.

### **REGISTRATION**

- 1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: <https://eprocure.gov.in/eprocure/app>) by clicking on the link “**Online bidder Enrollment**” on the CPP Portal which is free of charge.
- 2) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- 3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- 4) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.
- 5) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC’s to others which may lead to misuse.
- 6) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

### **SEARCHING FOR TENDER DOCUMENTS**

- 1) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.
- 2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective ‘My Tenders’ folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.
- 3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

## **PREPARATION OF BIDS**

- 1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.
- 3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- 4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" or "Other Important Documents" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

## **SUBMISSION OF BIDS**

- 1) Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.
- 3) Bidder has to select the payment option as "online" to pay the tender fee / EMD as applicable and enter details of the instrument.
- 4) Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.
- 5) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.
- 6) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.

- 7) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128-bit encryption technology. Data storage encryption of sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid openers public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 8) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 9) Upon the successful and timely submission of bids (i.e. after Clicking "Freeze Bid Submission" in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- 10) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

#### **ASSISTANCE TO BIDDERS**

- 1) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
- 2) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.

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### Eligibility Requirements: -

1. The bidder / contractor should have registration with CPWD/ MES/ Railways/ Delhi PWD/Delhi University in appropriate category & class.
2. The bidder should have completed similar work of Laboratory counters for a reputed government College or institution. The amount of work should not be less than 80% of estimated amount for one work, 60% of estimated amount for two works and 40% of estimated amount for three works. The certificate for satisfactory completion of works issued by an authority not less than Executive Engineer has to be attached in scanned copy, self-attested by bidder.
3. The bidder should not be black listed from any authorities
4. The bidder should have the following documents
  - i. PAN Number
  - ii. Latest Income Tax Return (As 2021-2022 onwards)
  - iii. GST Registration
  - iv. GST Return **(From March 2024 onwards)**
  - v. ESIC Registration along with copy of latest EPF returns/ECR **(From March 2024 onwards)**
  - vi. EPFO Registration along with copy of latest EPF returns/ECR **(From March 2024 onwards)**
  - vii. Registration with Labour Department
  - viii. Power of attorney / Authority letter in case person other than the bidder has signed the tender documents.
5. Technical bid and price bid undertaking form should be duly filled in.
6. The bidder/ contractor should submit the Tender Fee and Earnest Money Deposit as per the details given in the NIT. The scanned copy of acknowledgement /receipt of online payment should be uploaded along with other documents.

7. The bidder should upload the scanned copies of all the documents during online bid submission.
8. Annexure A

### **Technical Bid Documents:**

Scanned copies (true copies) of the following documents are to be uploaded / furnished by the bidder / contractor along with Technical Bid

1. Copy of registration with CPWD/ MES/ Railways/ Delhi PWD /Delhi University in appropriate category & class.
2. Undertaking stating the bidder/ contractor has not been black listed from any authorities.
3. Experience certificates of satisfactory completion of similar work. The amount of work should not be less than 80% of estimated amount for one work, 60% of estimated amount for two works and 40% of estimated amount for three works. The certificate for satisfactory completion of works issued by an authority not less than Executive Engineer has to be attached in scanned copy, self-attested by bidder.
4. Copies of the following documents.
  - i. PAN Number
  - ii. Latest Income Tax Return / Clearance (As 2021-2022 onwards)
  - iii. GST Registration
  - iv. GST Returns (**From March 2023 onwards**)
  - v. ESIC Registration and latest return/ ECR (**From March 2024 onwards**)
  - vi. EPFO Registration and latest return/ ECR (**From March 2024 onwards**)
  - vii. Registration with Labour Department
  - viii. Power of attorney / Authority letter in case person other than the bidder has signed the tender documents.
  - ix. Price Bid Undertaking duly filled and signed.

- x. Copy of acknowledgement /receipt of online for payment of tender fees.
- xi. The bidder should be uploaded the Annexure A duly filled and signed

**N.B. The bidder / contractor who fail to comply with any of the above requirements / documents will be disqualified and their financial bid will not be considered / opened.**

**PRICE BID**

- (a) Price bid undertaking
- (b) Schedule of price bid in the form of BOQ\_XXXX .xls

**PRICE BID UNDERTAKING**

From: (Full name and address of the Bidder) \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

To,

Dear Sir/Madam,

1. I submit the Price Bid for **SITC of CRCA steel Lab counters and repair and renovation woks of Chemistry labs no. - 01 & 02 at ARSD College, University of Delhi** and related activities as envisaged in the Bid document.
2. I have thoroughly examined and understood all the terms and conditions as contained in the Bid document, and agree to abide by them.
3. I offer to work at the rates as indicated in the price Bid, BOQ inclusive of all applicable taxes.
4. I am / we are not blacklisted in any authorities/ Departments.

Yours Faithfully,

**Signature of the Authorized Representative**

## CONDITIONS

Name of Work: **“SITC of CRCA steel Lab counters and repair and renovation works at Chemistry labs no. - 01 & 02 at ARSD College, University of Delhi”**

1. All materials to be used on the work shall be of reputed makes/ISI marked, as per the sample approved by the Engineer In charge.
2. Time allowed for the work from the day after the date of written order to commence the work will be **30 days**
3. Water or electricity required for the work will be allowed to the contractor for use and 1.50% of the full cost of work done will be recovered.
4. Cement required for the works will have to be arranged by the contractor, at his own cost.
5. All taxes as applicable shall be deducted from the bills of contractors.
6. The contractor will have to get samples of material and all fittings approved by the University Engineer or his representative before using them of the work.
7. The contractors can see the site of work before quoting their rates.
8. The successful contractor will have to execute an agreement with the University Authorities on the University Printed Form which can be seen before tendering in the office of the undersigned. Clause 10 CC shall not be applicable for this work.
9. Before tendering, the bidder shall visit the site and satisfy himself as to the local conditions, the accessibility of the site of full extent and implication of the operation, the nature of the ground and supply conditions affecting labour and execution of the contract. No claim on these issues will be entertained.
10. Inconvenience of Public: The Contractor shall not deposit materials on any site which will cause inconvenience to the public. The contractor may require to remove any materials which are considered to be dangerous or inconvenient to the public or cause them to be removed, at the contractor's cost as per direction of Engineer-in-charge. Works must be executed as per prevailing rules norms and guidelines of all statutory authorities.
11. The work shall be carried out as per latest CPWD specifications with relevant IS codes for works at Delhi, with up-to-date correction slips unless otherwise specified in the nomenclature of the individual item of work.
12. In case of error in description of any DSR item given in the attached schedule, the description given in the CPWD schedule of rates 2021 shall be final & no claim on account of error shall be entertained.
13. All existing services and ground of the plot (like storm water drains, water supply lines, sewer lines and approach roads etc.) will be kept by contractor in good order. Any damage to lawns, services, existing structure etc. during execution of work will have to be made good by the contractor at his own cost.
14. The contractor will co-operate with the other agencies working at the site/or in the surrounding area.
15. The successful contractor or his representative should be made available at work site execution every day during the execution of the work who will receive day to day instructions from the Engineer-In-Charge or his representative.
16. The contractor has to make his own arrangement of T&P required for execution of the work and no claim will be admissible on this account.

17. The contractor should submit the following documents along with the tender:
  - (a) Registration in Labour Department
  - (b) Registration with (a) EPFO (b) ESIC.
18. The contractor shall obtain a valid license under the Contract Labour (R & A) Act, 1970 and the Contract Labour (Regulation and Abolition) Central Rules, 1971, before the commencement of the work and continue to have a valid license until the completion of the work. The contractor shall also abide by the provisions of the Child Labour (Prohibition and Regulation) Act, 1986. The contractor shall also comply with the provisions of the building and the other construction workers (Regulation of Employment & Conditions of Service) Act, 1996 and the building and other Construction Workers Welfare Cess Act, 1996.

Any failure to fulfill these requirements shall attract the penal provisions of this contract arising out of the resultant non-execution of the work. No labour below the age of fourteen years shall be employed on the work.
19. Before commencement of the work, the contractor shall submit completion program of the assigned work so as to inform the Principal in advance. The work shall be executed without inconvenience to the beneficiaries.
20. In case the work site is not made available to the contractor according to the program, no claim will be admissible on this account.
21. All doors, windows, floors, furniture, electrical fitting and other articles shall be protected from Splashes and droppings of white/colour washing, distempering, painting etc. on wall, floors, doors, window, furniture etc. the same shall be removed by the contractor at his own cost failing which the Engineer in charge shall have the right to get this work done at the risk and cost of the contractor.
22. The contractor shall have to get the site of work cleared during execution and / or on completion of work as per directions and to the satisfaction of Engineer in charge.
23. Conditional tenders / quotations will not be accepted and will be rejected outright.
24. Variation in excess of the work shall not be allowed without prior approval of the competent authority. It shall be the responsibility of the contractor to ensure that cost of the work is not increased beyond the award value.
25. The tender shall remain open for acceptance of the period of 60 days from the date of opening of tenders. If any bidder withdraws his tender before the said period or makes any modification in the terms and conditions of the tender which are not acceptable to the University, then the University without prejudice to any right or remedy be at liberty to forfeit the earnest money.
26. The acceptance of the tender will be the university authorities who do not bind themselves to accept the lowest tender. The University authorities reserve the right to reject any or all the tenders without assigning any reason.
27. The contractor shall sign all pages of the tender documents including these conditions. Incomplete tenders are likely to be rejected.
28. The Contractor shall be required to deposit an amount equal to 5% of the tendered value of the work as performance guarantee in the form of irrevocable bank guarantee bond of any scheduled bank or state bank of in accordance with the form prescribed or in cash or in the form of Govt. Security, fixed deposit receipt etc. as in the 15 days of the issue of letter of intent but before award or work. This period can be further extended by the Engineer-In-Charge up to a maximum period of 7 days on written request of the contractor. The Performance Guarantee shall be released along with the payment of Final bill.
29. Security deposit/ Retention money as 5% of the running bill shall be withheld till the defect's liability period. The Defects liability period is one year from the date of completion of work.

30. The EMD shall be adjusting as Security deposit / retention money in the running Bill/s.
31. The work is to be executed as per layout given by the Engineer-in-charge and the contractor shall restrict the work accordingly.
32. After the award of work and agreement will be as per the general condition of contract of work of University of Delhi, which can be seen from the office of University Engineer.
33. If the contract has not carried out the work as per the CPWD specification no claim of payment is acceptable.
34. At the time of billing the contractor will have to submit an Affidavit\undertaking regarding payment of labour has been done after the completion of work.
35. Watch and ward of the materials at site and E.I. will be the responsibility of the contractor till full testing of all the fittings are completed and handed over to the department in full and nothing extra will be paid on this account.
36. The Contractor shall be fully responsible for the safe custody and proper storage of material at site to the satisfactions of the Engineer-in-Charge for which nothing extra will be paid.
37. If any damage is done to the building during the checking existing conduit, junction boxes etc. same will have to be made good by the contractor for which nothing extra will be paid.

**(Principal)**

## SPECIAL CONDITION

1. Contractor will submit shop drawings for all fabrication items like the lab counters, storage units etc. within 5 days of award of tender. Any rectification suggested by college will be incorporated in fabrication work.

### 2. TECHNICAL SPECIFICATION FOR LAB EQUIPMENTS

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#### **Item No. 1- : Island Laboratory Workbench:**

##### **Laboratory Workstations in Plinth mounted design**

**General Description:** Laboratory furniture must be tested as per SEFA-8M standards. All modular construction & design must be made of mainly skin passed/ zero spangle double skin pass CRCA steel sheet duly coated with at least 50 - 60-micron Epoxy Powder Coated in panel form and in CKD (Completely Knocked Down) construction. The design should have provision for reconfiguration for change in layout using simple tooling and should provide independent access to the utilities installed, electrical panel & instrumentation panel. It should be removable without removing other panels. All CRCA steel sheet components are of superior brand like TATA Steel / Posco/ Jindal/ SAIL and are fabricated by precision shearing, levelling, and notching, piercing, machines to achieve consolidated dimensions within close tolerances under the strict quality checks and assembled with the aid of fixtures. Exposed welding marks should be polished smooth to improve aesthetic. Corner intersections of vertical and horizontal members should be in the same plane with bolted joints and should be suitably aligned. The height of Laboratory Work Stations should be 850 mm in metallic construction designed to have completely flexible modular system. Each module will have independent base frame. Necessary leg space is provided between two modules wherever required. Rear portion of the leg space are covered with the enclosure panel. Work table should consist of; a) SEFA-8 standards heavy duty under cabinets & drawers: SEFA-8 standards heavy duty under module, comprising of two shutters with two vertical x2 horizontal shelves under each sink unit of 750 mm width and - one shutter 375 mm wide -two horizontal shelves under each work top of 750 mm width-while remaining 375 mm under each worktop to be empty for maintenance space-. Cabinet shutter will be in double skin construction and shall be provided with heavy duty, knuckle and barrel type SS hinges and positive catch arrangement. Shutter and drawer handles are also provided with recessed designed in Aluminum const. with pure epoxy powder coating. The under module shall be fabricated out of heavy gauge special grade CRCA steel sheet in weldless construction and shall be finished with pure epoxy powder coating for extra ordinary corrosion resistance. - Detailed specifications and thickness of CRCA items in each module: - Cabinet end panels; min. 1.0 mm thick CRCA steel sheet - Cabinet rear panel and top panel; min. 1.0 mm thick CRCA steel sheet - Cabinet base skid; 1.0 mm thick CRCA steel sheet - Cabinet drawers; 1.0 mm thick CRCA steel sheet - Cabinet shutters & drawer front panels; double skin const, min 0.8 mm thick CRCA steel sheet - Cabinet main frame structure and drawer slide rails, 1.6 mm thick CRCA steel sheet - Each cabinet shall have self-standing type base skid plinth.

**REMOVABLE BACK PANELS:** These cover panels should cover the service lines (eg: for sink, Laboratory faucets, Valves etc. with complete pipeline for inlet and outlet for water supply, drainage, PNG and electrical Switch, Socket, etc. with complete internal electrical wiring as per standard wherever required) that run through the middle for the island units. These should be easily removable (unclipped) and the

service line should be accessed for maintenance. They should be made of CRCA STEEL of 1mm thickness with pure epoxy powder coating of 50-70 microns.

**COVER PANELS:** All side cover panels and back panels, filler panels should be made from CRCA STEEL panels of 1.0 mm thickness with pure epoxy powder coating of 50-70 microns.

**REAGENT SHELVES:** Depending upon the layout it should be complete modular design consisting of 3 stage horizontal storage shelves made of minimum 1 mm thick CRCA STEEL with pure epoxy powder coating and having cutouts for electrical switches and sockets. Cutout for 3 module plate to be provided. All the members are knock down and can be restructured. The Reagent Racks vertical pillars should be made from CRCA STEEL of 1.6 mm thickness with pure epoxy powder coating with MS brackets of 2 mm thickness. There should be provision of installation of LED tube light below the horizontal shelves for sufficient illumination on the working space.

#### UNDER-BENCH STORAGE CABINETS:

Welded cabinet body should be of flush face construction with intersection of vertical and horizontal members like LH and RH side panel along with front horizontal channel, back panel and bottom panel. It should have the provision for relocation anywhere easily as it should be an independent unit. Cabinet should be of square non-sharp edge construction. Doors should be assembled with SS-304 hinge assembly. Removable back panel should be provided to easily access the service lines running behind the cabinet benches. Intermediate horizontal channels should be provided between door and drawer. Shelf should be eight bend panel with 20mm thickness. Drawer tray – If needed- should be of single piece construction. Drawer should be well supported on LH and RH ball slide suspension system. Steel door and drawer front should be of double wall construction with sound dampening material filled inside. Doors should be easily removable, and hinges should be easily replaceable. The under-storage units should be ergonomically distributed at an alternative interval with leg space of same length as that of the under-storage unit.

**Dimensions:** The dimensions of the cabinets should be as per plan, Depth = 510mm.

**Configuration:** The configurations should be , comprising of two shutters with two vertical x2 horizontal shelves under each sink unit of 750 mm width and - one shutter 375 mm wide -two horizontal shelves under each work top of 750 mm width- while remaining 375 mm under each worktop to be empty for maintenance space **MOC:** The entire material construction for the storage units should be CRCA Steel : IS – 513 (1994). **Thickness:** LH/RH side panels, shutter front, Bottom panel, Top front, Drawer separator, shelf, Alignment channel should be of 1.2mm thk. Removable Back panel, Shutter cover, Fr. Rack strip, Top cover panel should be of 1mm thick. **FINISH:** The finish of the welded cabinets should be powder coated pure epoxy of thickness 50- 70 microns. **Handles** should be Anodized Aluminium Recessed-Type, **CTC:** 160.0 mm. **LOCK:** Units should have a locking facility with 180° cam lock mechanism. **HINGES:** Soft-closing type Hinges. Shutter should be of twin-type construction with sound dampening effect using profeel. Shutter cover should be equipped with Bump on for sound dampening. **Ball Slide:** for drawer units should be 400mm length.

**SERVICE FITTINGS AND ACCESSORIES:** The service fittings (Sink, Faucet, Valve, Light fittings, Tube Light, Socket, Switch, drain board etc.) should be laboratory grade, and water faucets and valve bodies should be cast red brass alloy or bronze forgings or PTMT, all fittings should be powder plated unless specified otherwise. Fittings should be identified with service indexes in the color coding as per DIN 12920.

**ELECTRICAL TRUNKING:** The electrical trunking used for housing electrical switches and sockets, its top panel, bottom panel of the trunking should be made from 1.0 mm thick CRCA STEEL panel. It should be available in both, single sided and double-sided configurations. It should be made from CRCA STEEL with pure epoxy powder coating. The front surface that houses the electrical points should have a slope. The electric trunking unit should consist of Three Modular 16/6A switch socket MCB unit

**LABORATORY SINK AND ACCESSORIES:** The sinks should be polypropylene molded construction made up of 5 mm thick high density and elastic poly propylene with good resistance to organic solvents. Bowl size should be 560 L x 350 W x 255 D mm. Faucet should be 3-way type. The worktop should be 19mm (+/- 2mm) thick Jet-Black Granite worktop. The exposed edges of the worktop should be chamfered and smoothed. The bottom of the worktop should be polished and there should be a V-groove throughout the length of the exposed edges to protect the cabinets from meeting 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. [NOTE: Supply and installation of laboratory furniture with necessary placement of sink, Laboratory faucet, valve etc. with complete pipeline for inlet and outlet and electrical Switch, Socket, light fittings etc. with complete internal electrical wiring as per standard wherever required will be within the scope of the Bidder/Agency. Source of Water inlet and waste outlet and Electricity Source will be provided within the room by buyer.]

**SINK UNIT:** Providing and Placing in position Sink Unit. Welded cabinet body shall be of flush face construction with intersection of vertical and horizontal members along with front horizontal channel, back panel and bottom panel. It shall be relocated anywhere easily as it should be an independent unit. Cabinet shall be of square non-sharp edge construction. Doors shall be assembled with soft closing hinge assembly. Door front shall be of double wall construction with sound dampening material filled inside. Doors shall be easily removable and hinges shall be easily replaceable. Thickness of side panels, shutter front, Bottom panel, Top front, should be of 1.2mm and for Shutter cover, Front Rack strip, Top cover panel shall be of 1 mm. Powder coating shall be pure epoxy with thickness of 50-70 microns. Anodized Aluminum Recessed- Type handles shall be provided. Providing and fixing PP Drop-In Sink with Anti-Siphon Bottle Trap and Flexible Serrated Connector to connect sink to the waste line, length 1metre. and 38mm Dia. Polypropylene Molded Sinks shall be made up of 5 mm thick high density and elastic poly propylene with good resistance to organic solvents. Polypropylene Sinks (Drop-in) of overall size 560 L x 350 W x 255 D(mm), (Black color). Classic timeless appearance in matt finish, non-rusting and easy to maintain with bottle trap. Providing and fixing 3-way outlet Water Faucet on each Sink Unit. The Faucet shall have 3 swan neck type water faucets made up of Brass with epoxy powder coating or PTMT. It should be PH and rust resistant, autoclavable and leak proof with at least 2 years of comprehensive guarantee. The switch valve cast to be made of ceramic that can avoid acid wear. The outlet produced in PVC, has detachable hose nozzles, alloy pressure, changeable high-pressure outlet constructed or normal clean outlet control of water flow faucet immediately

**Item no. 9 - PEG BOARDS:** Supply and installation of single faced high-grade Polypropylene pegboard having a tray hole for water drainage and detachable pegs. Minimum 20 no's of Pegs should be present.

**Item no. 12 -EYE WASH:** Supply and Installation of Emergency Eye Wash with double spray-type outlet heads to deliver 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.

**WATER FITTINGS:** Internal Water distribution line for the laboratories as per the BOQ. Providing and fixing of internal water connection to all the sink units with UPVC piping system. UPVC Pipe of Dia - 25 mm for Water Inlet and UPVC Pipe of Dia - 75 mm for Water Outlet.

### **Wall Mounted Storage Cabinet:**

#### *General Specifications:*

Welded cabinet body should be of flush face construction with intersection of vertical and horizontal members like LH and RH side panel along with front horizontal channel, back panel and bottom panel. It should have the provision for relocation anywhere easily as it should be an independent unit. Cabinet should be of square non-sharp edge construction. Doors should be assembled with SS-304 hinge assembly. Removable back panel should be provided to easily access the service lines running behind the cabinet benches. Intermediate horizontal channels should be provided between door and drawer. Shelf should be eight bend panel with 20mm thickness. Drawer tray – If needed- should be of single piece construction. Drawer should be well supported on LH and RH ball slide suspension system. Steel door and drawer front should be of double wall construction with sound dampening material filled inside. Doors should be easily removable, and hinges should be easily replaceable. The under-storage units should be ergonomically distributed at an alternative interval with leg space of same length as that of the under-storage unit.

**Dimensions:** The dimensions of the cabinets should be as per plan, Depth = 510mm.

**Configuration:** The configurations should be, comprising of two shutters with two vertical x3-4 horizontal shelves under **MOC:** The entire material construction for the storage units should be CRCA Steel: IS – 513 (1994). **Thickness:** LH/RH side panels, shutter front, Bottom panel, Top front, Drawer separator, shelf, Alignment channel should be of 1.2mm thk. Removable Back panel, Shutter cover, Fr. Rack strip, Top cover panel should be of 1mm thick. **FINISH:** The finish of the welded cabinets should be powder coated pure epoxy of thickness 50- 70 microns. **Handles** should be Anodized Aluminium Recessed-Type, **CTC:** 160.0 mm. **LOCK:** Units should have a locking facility with 180° cam lock mechanism. **HINGES:** Soft-closing type Hinges. Shutter should be of twin-type construction with sound dampening effect using profeel. Shutter cover should be equipped with Bump on for sound dampening. **Ball Slide:** for drawer units should be 400mm length.

### **Floor mounted glass shutter cabinet: 1800 High**

#### *General Specifications:*

The cabinet shall be fabricated out of CRCA steel 1.0 mm th. Cabinet should be provided with 4 adjustable & 1 fixed shelf comporting 6 compartments. Proper design, stiffening / structural members should be provided for strength and rigidity. Front door of the cabinet shall be in twin door design having solid panel with metallic frame in CRCA Steel construction. Dimension and constructional detail of the cabinet is furnished below.

### *Construction Detail: -*

Welded cabinet body should be of flush face construction with intersection of vertical and horizontal members like LH and RH side panel along with front horizontal channel, back panel and bottom panel. It should have the provision for relocation anywhere easily as it should be an independent unit. Cabinet should be of square non-sharp edge construction. Doors should be assembled with SS-304 hinge assembly. Removable back panel should be provided to easily access the service lines running behind the cabinet benches. Intermediate horizontal channels should be provided between door and drawer. Shelf should be eight bend panel with 20mm thickness. Drawer tray – If needed- should be of single piece construction. Drawer should be well supported on LH and RH ball slide suspension system. Steel door and drawer front should be of double wall construction with sound dampening material filled inside. Doors should be easily removable, and hinges should be easily replaceable. The under-storage units should be ergonomically distributed at an alternative interval with leg space of same length as that of the under-storage unit.

**Dimensions:** The dimensions of the cabinets should be as per plan, Depth = 510mm.

**Configuration:** The configurations should be, comprising of two shutters with 4 adjustable and one fixed horizontal shelves under **MOC:** The entire material construction for the storage units should be CRCA Steel: IS – 513 (1994). **Thickness:** LH/RH side panels, shutter front, Bottom panel, Top front, Drawer separator, shelf, Alignment channel should be of 1.2mm thk. Removable Back panel, Shutter cover, Fr. Rack strip, Top cover panel should be of 1mm thick. **FINISH:** The finish of the welded cabinets should be powder coated pure epoxy of thickness 50- 70 microns. **Handles** should be Anodized Aluminium Recessed-Type, **CTC:** 160.0 mm. **LOCK:** Units should have a locking facility with 180° cam lock mechanism. **HINGES:** Soft-closing type Hinges. Shutter should be of twin-type construction with sound dampening effect using profeel. Shutter cover should be equipped with Bump on for sound dampening. **Ball Slide:** for drawer units should be 400mm length.

### *Stools-*

Supplying and placing of stool. The seat should be made up of  $1.2 \pm 0.1$  cm thick flat plywood and with moulded Polyurethane foam and should be upholstered with replaceable synthetic leather covers. The seat size to be of diameter 40.0 cm having adjustments of 360° revolving type. The back foam should be designed with contoured Lumbar support for extra comfort. The upholstery should be made of synthetic leather. The back size should be of 45.0 cm (W) X 30.0 cm (H) covered with polyurethane foam. The High Resilient (HR) polyurethane foam should be moulded with density =  $45 \pm 1-2$  kg/m<sup>3</sup> and Hardness load  $16 \pm 2$  kgf for 25% compression. The manual height adjustment should be easy to operate with the help of a knob. It should be easily lockable at the most comfortable position. The five-prong pedestal should be fabricated from  $0.2 \pm 0.02$  cm DD 1079 / HR sheet, powder coated (DFT 40-60 microns) and fitted with an injection moulded black Polypropylene Hub Cap and 5 nos. twin wheel castors. The pedestal-should be  $55.0 \pm 0.5$  cm pitch-circle diameter- ( $65.0 \pm 1.0$  cm-with-castors). Circular-foot-ring of  $052.0 \pm 0.2$  cm should be made up of  $01.9 \pm 0.2 \times 0.12 \pm 0.0096$  cm thk MS ERW Tube for foot support. The twin wheel castors should be injection moulded in Black Nylon.

**Delivery:** All the Furniture items should be delivered, placed, installed and commissioned at Sainik School Campus, within stipulated time period from date of issue of letter of award.

Supply and installation of laboratory furniture with necessary placement of sink, Laboratory faucet, valve etc. with complete pipeline for inlet and outlet and electrical Switch, Sockets etc. with complete internal electrical wiring as per standard wherever required will be within the scope of the Bidder. Source of Water inlet and waste outlet and Electricity Source will be provided within the room.

## LIST OF APPROVED MAKES FOR COMPONENTS

Steel	TATA Steel, JINDAL Steel, SAIL
Powder Coating	Kansai Nerolac, Berger Paints, Asian Paints
Switches Sockets with MCB Unit	Northwest, Anchor, Norisys, Havells, Legrand
Locks, Fittings & Hardware	Hettich, Hafele, Ebco, Godrej or equivalent
Drawer Slides, Hinges	Hettich, Hafele, Ebco, Godrej or equivalent
LED Tubelight	Phillips, Havells
Electric Cable	Havells, Polycab, Finolex
Water Faucets and Gas Valves:	Broen/ Water saver/ L&T/ Amtech/ Equivalent

### Additional Terms and conditions

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- 1.1 To be eligible for award of contract, Bidder / OEM must submit the Technical Datasheet with detailed laboratory layout design and drawings, isometric images, auxiliary plumbing and LPG layouts with proper justification in accordance to the bid specification document to be uploaded in order qualify in the technical evaluation stage. The bidder will be marked disqualified if the required datasheet is not submitted or found not-satisfactory to the technical committee.
- 1.2 To be eligible for award of contract, Bidder / OEM must possess following Certificates / Test Reports on the date of bid opening (to be uploaded with bid):

<b>Compliance Certificates</b>	<b>Metal Test Reports</b>	<b>ISO Certificates</b>
BIFMA	Gloss @60-degree test	13485
BIFMA HCF 8.1	Hardness test	14001
SEFA-10	Impact resistance test	17025
SEFA 8-M 2016	Cross cut adhesion test	27001
GREEN GUARD	Elasticity-Cupping test	45001
ANSI/ASHRAE 110-1995	Salt spray test	50001
EN13150	Conical Bend Test as per ASTM D522	
EN14727		

- 1.3 One perfectly sized 300 mm Length x 300 mm Width x 1.2 mm thickness laser cut according to the Institute laser printed sample with Consignee's institution logo imprinted should reach the "Atma Ram Sanatan Dharma College, Dhaula Kuan, New Delhi -110021" One day before bid closing date.

**3. Clause 12 shall be read as under:**

CLAUSE 12. The Engineer -in charge shall have power to make any alterations in , omissions from, additions to or substitutions for , the original specifications , drawings, designs and instructions, that may appear to him to be necessary during the progress of the work , and the contractor shall carry out the work in accordance with and instructions which may be given to him in writing signed by the Engineer -in charge , and such alterations, omissions, additions or substitutions shall not invalidate the contract and any altered , additions or substituted work which the contractor may be directed to do in the manner above specified as part of the work shall be carried out by the contractor on the same conditions in all respects on which he agreed to do the main work. The time of the completion of the work shall be extended in the proportion that the altered, additional or substituted work bears to the original contract work, and the certificate of the Engineer -in charge shall be conclusive as to such to proportion. Over and above this, a further period to the extent of 25 per cent of the time as extended shall be allowed to the contractor. The rates for such additional, altered or substituted work under this clause shall be worked out accordance with the following provisions in their respective order:

- (i) If the rates for the additional, altered, substituted work are specified in the contract for the work, the contractor is bound to carry out the additional, altered or substituted work, at the same rates are as specified in the contract for the work.
- (ii) If the rates for the additional, altered, substituted work are not specifically provided in the contract for the work, the rates will be derived from rates for a similar class of work as are specified in the contract for the work.
- (iii) If the altered , additional or substituted work includes any work for which no rates is specified in the contract for the work cannot be derived from the similar class of work in the contract , than such work shall be carried out the rates entered in C.P.W.D. Schedule of Rates for Delhi 2021 Minus/ plus which the total Bidder amount bears to the estimated cost of the entire work put to tender.
- (iv) If the rates for the altered , additional or substituted work cannot be determined in the manner specified in sub- clause (i) to (iv)above then the contractor shall, within 7 days of the date of receipt of order to carry out the work , inform the Engineer - In charge of the rate which it is his intention to charge for such class of work, supported by analysis of the rate or rates claimed, and the Engineer - in charge shall determine the rate or rates on the basis of prevailing market rates, and pay the contractor accordingly. However, the Engineer - in charge by notice in writing, will be at liberty to cancel his order to carry out such class of work and arrange to carry it out in such manner as he may consider advisable. But under no circumstances, the contractor shall suspend the work on the plea of non- settlement of rates of items falling under the clause.

**(Principal)**

**LIST OF RECOMMENDED MAKES OF MATERIAL  
(CIVIL WORK)**

The materials of the following make of first/ standard quality shall only be used in the work. In case of is established through that the brands specified below are not available in the market, the contractor shall submit proposal for alternative make for the approval of the University Engineer. However, tests prescribed in CPWD specifications – 2009 Vol- I & II with upto date correction slips should be carried out in all cases.

S.NO.	DESCRIPTION	APPROVEDMAKE
1.	<b>Grey Cement</b>	ULTRATECH/ ACC/ JKCEMENT/ AMBUJA/SHREECEMENT
2.	<b>White Cement</b>	JKCEMENT/ BIRLAWHITE/ ACC/ASIAN/SHREECEMENT
3.	<b>RMC</b>	ACC, ULTRATECH, NUOVACO
4.	<b>Reinforcement</b>	SAIL/ JSPL/ JSW/ TATA STEEL(TISCON)/ RINL
5.	<b>Structural Steel</b>	SAIL/ JINDAL STEEL & POWER/ JSW/ TATA STEEL(TISCON)/ RINL/ APPOLLO
6.	<b>Hollow Section Pipes</b>	TATA/ JSW/ JSPL/ APOLLO
7.	<b>Deck Sheeting</b>	TATA BLUE SCOPE/ JSW/ JINDAL
8.	<b>Gypsum Plaster</b>	ASIAN PAINTS/ GYPROC/ J.K/ FERROUS CRETE/ ULTRATECH
9.	<b>Anti-Termite Treatment</b>	SHREE CHEM/ TERMINATOR/ BAYER/ PCI
10.	<b>Concrete Additive</b>	MYK ARMENT/ ASIAN PAINTS SMARTCARE/ KRYTON/ CICO/ PIDILITE/ FOSROC/ SUPREME BITUCHEM/ ALCAFINE
11.	<b>Polyurethane Sealant</b>	KRYTON/ PIDLITE/ FAREMATE/ FOSROC/ DOW CORNING/ BULWARK CONCHEM
12.	<b>Polyethylene Board/Back Up Rod</b>	SUPREMEINDUSTRIES/FINOLEX
13.	<b>Expansion/Fasteners</b>	FISHER/ HILTI/ RAWL PLUG/ BOSCH/ WUERTH/
14.	<b>Roof Tiles</b>	UNISTONE/ NITCO/HINDWARE/THERMOTEK
15.	<b>Non-Metallic Hardener Compound</b>	CICO/ PIDILITE/ FAIRMATE.
16.	<b>Metal (GI)Sheet Roofing</b>	TATA BLUE SCOPE/SAIL/JINDAL/LLOYD
17.	<b>Polycarbonate Roof Sheeting</b>	DANPALON/ POLYGAL /DPIDAY LIGHTING
18.	<b>Autoclaved Aerated Concrete (AAC)Blocks</b>	MODCRETE/KRISH/HIL/ULTRATECH/ GODREJ TUFF BLOCKS/ CLAVECON/JK/SHREECEMENT
19.	<b>AAC Wall Panels</b>	MEGICRETE/ AEROCON/ CLAVECON/GODREJ

20.	<b>AAC Mortar</b>	BIRLA AEROCON/ ARDEXENDURA/ULTRATECH/ SIKA/CLAVECON/ MYKLATICRETE/MODCRETE/JK/SHREECEMENT
21.	<b>Rolling Shutter</b>	RAMA/PRAKASH/GANDHI/SHAKTIHORMAN
22.	<b>Expansion Joint Board &amp; Accessories</b>	FOSROC/ MIGUA/ ASP/ EMSEAL/SUPREME
23.	<b>Asphalt Emulsion</b>	STP/KARNAKCHEMICALCORPORATION
24.	<b>EPDM &amp; Silicon Gasket /Rubber Gasket</b>	SCHUCO/SAPABUILDINGSYSTEMS/ EUROPEANFAÇADEPRODUCT(EPF)/RAYNERS
25.	<b>Silicon Water Repellent Solution</b>	GEBAYER/REMMERS/DUPONT
26.	<b>Water Proofing (Cementitious, HDPE, EPDM, PU Etc.)</b>	PIDILITE, FOSROC, SIKA-BASF, CECO, JPLXYLO, BULWARKCONCHEM
27.	<b>Glass/ Rock Wool Insulation</b>	UPTWIGA/POLYGLASS/OWENSCORNING/ LLOYDS/ROCKWOOLINDIA
28.	<b>Rebaring</b>	HILTI/FISCHER/MYKWUERTH
29.	<b>Swellable Bar</b>	PIDILITE/FOSROC/MYKARMENT/SIKA-BASF
30.	<b>Pressed Steel Frame</b>	AGEW/SANHHARVIC/RAYMUS
31.	<b>Adhesives (Tile /Stone Etc.)</b>	PIDITILE/MAPEI/FOSROC/MYK- ARMENT/ULTRATECH /CRETSTONE/DUR ATUF/SOUDAL
32.	<b>Admixtures</b>	CICO/ FORSOC/SIKA-BASF/MYKARMENT/ PIDILITE/MAPEI/SUPREMEBITUCHEM/ ANEEB/BULWARK CONCHEM/SOUDAL
33.	<b>Bitumen</b>	SHALIMARTARPRODUCTS/INDIANOIL/BHARAT PETROLEUM/HINDUSTANPETROLEUM
34.	<b>Parallel Threaded Couplers</b>	DEXTRA/HALFENMOMENT/G-TECH/USHA MARTIN/ASCON/HERRISAN/
35.	<b>Extruded Polystyrene Board</b>	STP/SUPREME/OWNESCORNING/SHALIMAR
36.	<b>Moisture Resistant Board</b>	SAINTGOBAIN/GYPROX/USGBORAL/ GREENLAM/DURO/MERINO/ARCHID
37.	<b>Expansion Joint-Modular</b>	C.S/MIGUA/DSBROWN/VEXCOLT/KANTAFLEX/BIZZAR
38.	<b>Polyester Powder Coating Paints Repellent/Weather Sealant</b>	NEROLAC/BERGER/AKZONOBEL/ULTRATECH/ASI ANPAINTS/
39.	<b>Curing Compound</b>	FOSROC/SIKA/CICO/STP/PIDILITE/BASF
40.	<b>Water Proof Cement Paint</b>	SNOWCEM PLUS/ JSW PAINTS/ BERGER (DUROCEM EXTRA)/JEWELL/NEROLAC/ ASIAN/ICI (NEROCEMWITHTITANIUM)
41.	<b>Welding Electrodes</b>	ADVANI/OERLIKON/LAURITZ KNUDSEN
42.	<b>Formwork Systems</b>	PERI/DOKA/SYMONS/VABAASPERTECHNICAL SPECIFICATIONSANDASAPPROVEDBYENG INEER-IN-CHARGE
43.	<b>Self- Levelling Compound</b>	ARDEX, /FOSROC/KERAKOLL/DR.FIXIT/MYK ARMENT

44.	<b>Modular/Office Partitions</b>	DORMA/GODREJ/HAFFLE/GEZZE
45.	<b>PVDF Coated Polyester Type Tensile Fabric</b>	SERGEFERRARI/MEHGIESFR/MEHLAR
46.	<b>G.I. Wire Rope</b>	USHAMARTIN/ASAHIROPES/NIRMALWIRES/WELLWORTH
47.	<b>Insulation XPS Boards</b>	FIRESTONE/ INSUBOARD/ OWNESCORNING/ TEXSASYSTEM
48.	<b>Prelaminated/Skin laminated/ Flush Doors /Flush doors/Shutters</b>	GREENPLY/KITPLY/ CENTURY
49.	<b>Lift</b>	OTIS/KONE/SCHINDLER/MISTUBISHI
49	<b>Automatic Organic Waste Compost Machines</b>	EXCELINDUSTRIESLTD. /NETELINDIA/ ALPHATHERM/SMARTXPRESS/NACHIKET
50	<b>Aluminium Sections</b>	JINDAL/HINDALCO/NALCO
50.	<b>Stainless Steel</b>	JINDAL/OZONE/TATA
51.	<b>Stainless Steel Railing and its accessories</b>	DORMA KABA/KICH/JINDAL
52.	<b>Shoe Glass Railing</b>	RAMSON/SAINTGOBAIN/ART&GLASS
53.	<b>Exterior Wall Tiles</b>	PAVIT/ULTRADESINGERTILES/ HINDWARE
54.	<b>Cement Based Paint</b>	SNOWEEMPLUS/BERGER(DUROCEMEXTRA)/ ASIANPAINTS
55.	<b>Surface Texture Paint (Exterior)</b>	ASIANPAINTS/ULTRATECH/SPECTRUM/ NEROLAC/LUXTURE/DULUX
56.	<b>Aluminium Composite Panel</b>	ALUCOBOND/ ALSTRONG/ ALSTONE/ ALUDECOR/ VIRGO/ ANUTONE
57.	<b>Perforated Aluminium Façade Panels</b>	ALSTONE/ JINDAL/ HINDALCO
58.	<b>Exterior Wood High Pressure Laminate Wall Cladding</b>	GREENLAM/GNEXT/FUNDERMAX
59.	<b>Aluminium Louvers</b>	HUNTERDOUGLAS/JINDAL/UNISTONE/ ANAKON
60.	<b>Performance Louvers</b>	C.S.-SAINT GOBAIN/ COLT/ INTELIO/ AIROLITE LOUVERS/ ANAKON
61.	<b>Structural Glazing</b>	SAINTGOBAIN/PILKINGTON/GUARDIAN/ AIS/BLICK
62.	<b>Silicone</b>	DOW-CORNING/PIDLITE/GE
63.	<b>UPVC Window / Door Profiles</b>	FENESTA/ALUPLAST/KOEMMERLING/ VEKA/DECCUNICK
64.	<b>UPVC Window / Door Fabricators</b>	WINDOW MAGIC/STAY BRIGHT WINDOWS/FENESTA
65.	<b>GRC Architectural Decorative Products</b>	UNISTONE/BIRLAWHITEGRC/EVEREST/DELHI GRC/SMARTEXTERiors
66.	<b>Fire Sealant</b>	HILTI/FISCHER/BIRLA3M/WUERTH
67.	<b>Powder Coatings</b>	BERGER/ NEROCOAT/ JOTUN/ RADIANT ANODISERS
68.	<b>Glass Canopy</b>	HAFELE/ DORMA KABA/GODREJ
69.	<b>Cement Board</b>	EVEREST/BISONPANEL/VIROC
70.	<b>Clear/Float/Tinted/ Frosted Glass</b>	SAINTGOBAIN/AIS/PILKINGTON/MODIGUARD

71.	<b>Glass/SS Spider Fittings</b>	DORMA/ HAFALÉ/ GODREJ/ ASSAABLOY
72.	<b>Hermitically Sealed Performance Glass Toughened Glass</b>	SAINTGOBAIN/GUARDIANGLOSS/PILKINGTON/MODI GUARD/ASAHI
73.	<b>Backer Rod</b>	SUPEREM/SILICA/EPE/SOFTEx
74.	<b>Ceramic Panel Cladding</b>	HUNTERDOUGLAS/NEOLITH/TERREAL/ ANAKON
75.	<b>G.I. Steel Door Frame</b>	SYNERGYTHRISLINGTON/BHAWANI FIRE/PYROTECH/ SHAKTI

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S.NO.	DESCRIPTION	APPROVEDMAKE
76.	<b>Friction Stay Hinges</b>	SCHUCO/SAPABUILDINGSYSTEM/EUROPEAN STANDARD/RAYNERS/EBCO/
77.	<b>Mirror</b>	ATUL/ MODIGUARD/ SAINTGOBAIN/AIS
79.	<b>Shingles</b>	SAINTGOBAIN-CERTAINTEED/IKO/ TECHNINICOL
80.	<b>Metal False Ceiling</b>	SAINTGOBAIN/ GYPROC/WESTERN/HUNTER DOUGLES/ ARMSTONG/BOLLARD/ANAKON
81.	<b>Fibre/ Calcium Silicate False Ceiling</b>	GYPROC/ DURLUM/ ARMSTRONG/ USGBORAL/ EVEREST/ NCL/AEROLITE/BOLLARD/ ULTRALITE/ HUNTERDOUGLES/ ANAKON/
82.	<b>Acoustical false Ceiling</b>	IDEATEC/ TOPAKUSTIC/ FANTONI/ ANAKON /HUNTERDOUGLAS/ ANUTONE / SAINT GOBAIN/ INDIAGYPSUM/BOLLARD/USGBORAL/ARMSTRONG/D EXUNE/DURLAM/
83.	<b>False Ceiling–Gypsum</b>	SAINTGOBAIN/ INDIAGYPSUM/ USGBORAL/ ARMSTRONG/ DEXUNE/ BOLLARD/DURLUM/ HUNTERDOUGLES/GYPROC/WESTERN/ANAKON
84.	<b>False Ceiling Grid System</b>	GYPROC/GRIDSYSTEM/USGBORAL/GRIDLINE/ ANAKON/ARMSTRONG/BOLLARD/ WESTERN/HUNTERDOUGLES
85.	<b>Baffle Ceiling</b>	HUNTERDOUGLAS/DURLUM/BOLLARD/SAS ARMSTRONG/LEBEN/ ANAKON/ REYNOARCH
86.	<b>Ceramic Tiles</b>	JOHNSON/KAJARIA/SOMANY
87.	<b>Vitrified Tiles</b>	JOHNSON/KAJARIA/SOMANY
88.	<b>Terrazzo Tiles</b>	NITCO/ MODERN/ HINDUSTAN/ HINDWARE
89.	<b>Tile Joint Filler</b>	DURACREATE / ROFF RAINBOW TILE MATE/ WINSIL20/ SILICONSEALANTOFGE BAYER SILICON/ BULWARK CONCHEM MYKLATICRETE / BALENDURA
90.	<b>Wooden Flooring</b>	PERGO/GREENLAM/ARMSTRONG/PARADOR/TARKET/ CENTURYPLY
91.	<b>PVC Flooring</b>	ARMSTRONG/ FORBO/ TARKETT/ LG/ POLYFLOOR
91	<b>Raised Flooring</b>	CB IEUROPE/ UNIFLOOR/GYPTECH/SUNDREAM
92.	<b>Glass Mosaic Tiles</b>	CORAL/BISAZZA/OPIO/MOSAICO
93.	<b>Epoxy Floor</b>	FOSROC/ CICO/ SIKA-BASF/ PIDILITE/ UNITED/ BULWARK CONCHEM/ MYK-ARMENT/ REYNOARCH
94.	<b>Carpet Flooring</b>	EGE/MILLIKEN/ROMEC/CARPET INTERNATIONAL
95.	<b>Linoleum Flooring</b>	GERFLOR/TARKETT/MARMOLEUM
96.	<b>Heat Resistant Tiles</b>	SWASTIK/THERMATEK/JOHANSONS/PAVIT
97.	<b>Artificial Turf</b>	ALTIUS/WELSPUN/EUROTEx/STANDARD

98.	<b>Mosaic/Chequered Tiles</b>	BISAZZA/ NITCO/ UNITILE/
99.	<b>Paver Block &amp; Kerb Stone</b>	NITCO/UNITILE/ULTRA/PAVIT/ HINDUSTAN TILES/KK
100.	<b>Tile &amp; Stone Adhesive/Epoxy Grout</b>	PIDILITE/FERROUSCRETE/FOSROC/JK TYLO
101.	<b>Floor Hardener</b>	IRONITE/FOSROC/ BULWARK CONCHEM /ULTRATECH HARDONITE/ SIKA/PIDILITE/MYKARMENT/ BASF
102.	<b>Composite Marble /Granite/Engineered Stone</b>	ASIAN/JOHNSON/KALINGA/ASPERTECHNICALSPECI FICATIONS.
103.	<b>Water Based Melamine Polish/ Wood Finish</b>	ASIANPAINT/PIDILITE/ICIDULUX/BERGER
104.	<b>Clamp System for Dry Stone Cladding</b>	HILTI/FISCHER/BOSCH/RAWLPLUG/AXEL INDUSTRIES/WUERTH/AFT
105.	<b>Aluminium/ UPVC, Structural Glazing Hardware Fittings</b>	GODREJ/DORMA/GEZE/OZONE
106.	<b>Automatic Sliding Door</b>	ASSAABLOY/DORMAKABA/HAFELE
107.	<b>Door/Window Hardware</b>	DORMA KABA/ GODREJ/ HAFELE/ HETTICH/ DORSET/ OZONE
108.	<b>Locks</b>	DORMA KABA/ GODREJ/ HAFELE/HETTICH/ DORSET/ OZONE
109.	<b>Smart Door Locks</b>	HAFELE/GODREJ/DORSET
110.	<b>Hardware For Fire Check Door</b>	DORMA/ASSAABLOY//PYROTECH/HAFALE /YALE/BRISTOL/BECKER/DORSET
111.	<b>Fire Resistant Glass/ Vision Panels</b>	SAINT GOBAIN/PILKINGTON/ ASAHI/
112.	<b>Adhesive Tape</b>	3MINDIA/NORTON/APPOLOINDUSTRIES
113.	<b>Rollers For Sliding/ Flush Lock for Sliding/Wool Pile with Silent Film.</b>	SAPABUILDINGSYSTEM/GODREJ/DORMA/DORS ET/HETTICH
114.	<b>Revolving Doors</b>	DORMA/ AUTOINGRESS/BOONEDAM/ASSAABLOY
115.	<b>Nuts/Bolts/Screws</b>	GKW/ATUL/HILTI/RAWPLUG/GRIPPLE/ UNBRAKO/FISHER/WUERTH/AFT
116.	<b>Plywood/Block Board/Soft Board/HDHMR Board</b>	GREENPLY/ MERINO/ ARCHIDPLY/ DURO/CENTURY/GREENLAM/MODIPLY/JAYNA
117.	<b>Pre-laminated Particle Board</b>	GREENPLY/ JAYNA/MERINO/ ACTION TESA/ ARCHIDPLY/CENTURYPLY
118.	<b>MDF Board</b>	MERINO/ GREENLAM/ CENTURY/ ARCHIDPLY/ACTION TESA
119.	<b>Adhesive For Wood Work</b>	FEVICOL/ARALDITE/3M

120.	<b>Float REBARR Glass/Toughened Glass</b>	SAINTGOBAIN/AISGLASS/MODIGAURD
121.	<b>Silicon/Weather Sealant</b>	DOWCORNING/GEBAYER/WICKER/PIDILITE/ JSW PAINTS//ALSTONE
122.	<b>Fire Doors (IS3614:2021 Compatible) CBRI Certified</b>	SHAKTIHARMAN/TATA PRAVESH/NAVAIER/SUKRITI
123.	<b>Curtains/Blinds</b>	VISTA/DECK/DDECOR/HUNTERDOUGLAS/AIROLUX
124.	<b>Wooden Panelling</b>	ARMSTRONG/MERINO/CENTURY/GREENLAM/ DUROTUFFWOOD/BOLLARD/KERTOLVL/MODIPLY
125.	<b>Acoustical Wall Panelling</b>	MATTERWALL/DBDESIGNCOUSTICS/ TRANQUIL/ARMSTRONG/ ANAKON/BOLLARD
126.	<b>Laminates</b>	GREENLAM/ARCHID/CENTURYSKYDECOR/MODIPLY/E 3/JAYNA/ VIRGO/MERINO
127.	<b>Compact Laminated Doors</b>	GREENPLY /ARCHID/CENTURY/MODIPLY/ JAYNA
128.	<b>Solid Surface/Acrylic</b>	REHAU/DUPONT/STARON/SAMSUNG/LG
129.	<b>Calcium Silicate Board</b>	PROMATE/HILUX/ACONPAN/AEROLITE/ GYPROC
130.	<b>POP</b>	SRIRAM/JKCEMENT/BIRLA/SAKARNI
131.	<b>Gypsum Board for Partition</b>	GYPROC/USGKNAUF/WESTERN
132.	<b>Modular Kitchen/ Wardrobe</b>	GODREJ /COSTAWOOD/UFLIX/DECORMS/E3/ MAKERMAN/INTELLIO/URBANGREY
132	<b>Kitchen Hardware Fittings</b>	GODREJ/HETTICH/HAFELE
133.	<b>Veneered Particle Board</b>	MERINO/DURO/ GREENLAM/ ARCHID/ GREEN PLY/ MODIPLY/ ACTION TESA
134.	<b>Laminated Particle Board</b>	MERINO/ GREENLAM / CENTURY/JAYNA/ ARCHID/ ACTION TESA
135.	<b>Toilet Cubicles</b>	MERINO/GREENPLY/ARCHID/CENTURY
136.	<b>PVC Corner Guard</b>	WINDOWTECH/DECOREX/DECK/LSR/DDECOR
137.	<b>Acoustic Doors/Shutters</b>	STAIRWAYSTUDIO /SIGNATUREINTERIORS/ENVIROTECH
138.	<b>Furniture</b>	GODREJ INTELLIO/FEATHERLITE/DURIAN/AIS/UFLIX
138.	<b>Stretch Fabric Wall Panelling /Ceiling</b>	ANUTONE/WALLTRACTS/CLIPSO/EUROCIL
139.	<b>Shower Cubicles</b>	SAINTGOBAIN/JAQUAR/KOHLER
140.	<b>Interlocking Tiles / Grass Paver Blocks</b>	NIMCOPREFAB/ULTRADESIGNERTILES/ MODEREN
141.	<b>Cement Concrete Tiles</b>	ULTRA/EUROCON/NITCO/DURACRETE./ UNISTONE
142.	<b>Pavement Tiles</b>	PAVIT/ULTRADESIGNERTILES/SUPERTILES/ UNISTONE

143.	<b>Tactile</b>	PALICAN/UNISTONE/NIMCO
144.	<b>Synthetic Enamel Paints</b>	BERGER/ ASIAN/ICI DULUX(GLOSS)// JSW PAINTS/ NEROLAC
145.	<b>Oil Bound Distemper</b>	ASIANPAINT/ BERGER/ NEROLAC
146.	<b>Plastic Emulsion Paint</b>	ASIANPAINT/ BERGER/ NEROLAC/DULUX
147.	<b>Other Paints</b>	ASIANPAINT/ BERGER/ NEROLAC/DULUX
148.	<b>Surface Texture Paint (Interior)</b>	ASIANPAINT/ BERGER/ NEROLAC/DULUX
149.	<b>Melamine</b>	ASIANPAINTS/ BERGER/ NEROLAC/
150.	<b>Fire Resistant Paints</b>	AKZO/ NOBLE/ PPG/ JOTUM
151.	<b>Acrylic Distemper</b>	BERGER/ DULUX/ ASIANPAINTS/ NEROLAC
152.	<b>Acrylic Emulsion Paints</b>	DULUX/ NEROLAC/ ASIANPAINTS/ BERGER
153.	<b>Cement Primer</b>	DULUX/ NEROLAC/ ASIANPAINTS/ BERGER
154.	<b>Steel/Wood Primer</b>	DULUX/ NEROLAC/ ASIANPAINTS/ BERGER
155.	<b>Epoxy Paint</b>	DULUX/ NEROLAC/ ASIANPAINTS/ BERGER
156.	<b>Wall Putty</b>	JKCEMENT/ BIRLA WHITE/WESTERN/ASIAN PAINTS
157.	<b>Sports/Gym/Turf/Flooring</b>	KRAIBURG/other as per tender specifications
	<b>PLUMBINGINTERNAL&amp;WTPWORK</b>	
158.	<b>Sanitary Fittings &amp;Accessories Such As EWS, Wash Basin, Urinal, Urinal Partitions, Toilet Paper Roll Holder etc.</b>	JAQUAR/KOHLER/ROCA
159.	<b>W.C. Seat Cover</b>	JAQUAR/KOHLER/ROCA
160.	<b>C.P. Brass Flush Valve for WC And Urinals</b>	JAQUAR/KOHLER/ROCA
161.	<b>C.P. Brass Fittings</b>	JAQUAR/KOHLER/ROCA
162.	<b>Automatic Hand Drier</b>	KOPAL/TOSHI/EURONICS
163.	<b>Stainless Steel Kitchen Sink</b>	NEELKANTH/AMC/ PEARL/COBRA/NIRALI
164.	<b>Cast Iron Pipes &amp; Fittings, Manhole Covers and Frames as PerIS:3989&amp; Hubless15905</b>	NECO/SKF/BIC/HEPCO
165.	<b>CI&amp;DI Manhole Covers</b>	NECO/SKF/BIC/HEPCO
166.	<b>GI/MS Pipes (IS:1239And IS:3589)</b>	TATA STEEL/JINDAL(HISSAR)/ SAIL/ APL APOLLO/ SURYA
167.	<b>GI Pipes Fittings</b>	UNIK/ZOLOTOM/LEADER/DRP-M/ APLAPOLLO

168.	<b>CPVC/UPVC Pipes and Valves</b>	SUPREME/ ASTRAL/ FINOLEX/AGK/ ASHIRWAD
169.	<b>Gun Metal/Forged Brass –All type Valves</b>	ZOLOTO/ CASTLE/ ADVANCE/ C&R/ DRP-M/ EMERLALD
170.	<b>Y Strainer</b>	ZOLOTO/ CASTLE/ ADVANCE/ C&R/ SKS/ EMERLALD
171.	<b>Pumps</b>	GRUNDFOS/CROMPTON/ KIRLOSKAR/
<b>S.NO.</b>	<b>DESCRIPTION</b>	<b>APPROVEDMAKE</b>
172.	<b>Variable Frequency Drives</b>	SIEMENS/ABB/FUJI/BELIMO/SCHNEIDER/LAURITZ KNUDSEN/ DANFOSS
173.	<b>Drinking Water Cooler with RO system/RO System</b>	BLUESTAR/VOLTAS/OASIS/AQUAGUARD
174.	<b>Pressure Gauge</b>	EMERALD/FIEBIG/HGURU/AXIN
175.	<b>Water Meter (Mechanical Type)</b>	KAYCEE/KAMSTRUP/
176.	<b>Level Controller (Water)</b>	ACTIVECONTROLS/MINILEC/TECHNIKA/
177.	<b>Level indicator (Water)</b>	ACTIVECONTROLS/MINILEC/TECHNIKA/
178.	<b>Water Treatment Plant, R.O., Filters Etc.</b>	IONEXCHANGE/PENTAIR/THERMAX/NETSOL/PUREINDI A
179.	<b>Water Purifier</b>	EUREKAFORBES/PENTAIR/EUROSTAR/ AQUATECH
180.	<b>Dosing Pumps</b>	LMI/TOSCHON/PULSERFEEDER/
181.	<b>Insulation For Hot Water Pipes</b>	ARMACEL–ARMAFLEX(UK)/EUROBATEX– UNIONFOAM(ITALY)/K-FLEX/
182.	<b>Hot Water Generators</b>	THERMAX/OLYMPIA/AOSMITH/
183.	<b>Ozonotor</b>	ALPHA/OZAIR. /A-MOZONICS/CREATIVE
184.	<b>Heat Pump</b>	SUNTEC/YORK/BLUEBOX/
185.	<b>SS Pipes</b>	TATA/JSL/APL APOLLO
186.	<b>HDPE Pipes</b>	EMCO/RELIANCE/ORIPLAST/SUPREME/ VECTUS/FINOLEX
187.	<b>DI Pipes/Fittings</b>	ELECTROSTEEL/JINDAL/TATADUCTURA
188.	<b>Centrifugally Cast (Spun) Iron Pipes &amp; Fittings</b>	NECO/SKF/ELECTROSTEEL/SAINTGOBAIN/ BIC/TATA/
189.	<b>Centrifugally Cast (Spun) Ductile Iron Pipes &amp; Fittings</b>	ELECTROSTEEL/JINDAL(HISSAR)/KALINGA
190.	<b>SFRC Manhole Covers &amp; Gratings</b>	KK/OCR/PARGATI/T-CON/OMSPUN
191.	<b>FRP Road Drain Grating</b>	DUDHI/ KK/OCR/PARGATI
192.	<b>Floor Traps</b>	CHILLY/NIRALI/PEARL
193.	<b>Brass Stop &amp; Bib Cock</b>	ZOLOTO/SANT/LAURITZ KNUDSEN/LEADER/ASTRAL
194.	<b>Brass Ferrules</b>	DHAWANSANITARYUDYOG/KALSI/ANNAPURNA
195.	<b>Polyethylene Water Storage Tank</b>	SINTEX/POLYCON/SPL/VECTUS
196.	<b>Pipe Protection for External Water Supply Pipes</b>	PYPKOTE/ARMAFLEX/MAKPOLYKOTE

197.	<b>GIMS Pipe Protection Wrapping &amp; Coating</b>	PYPKOTE/RUSTECH-COATEK/SHALIMAR/STP/IWLLTD/ASIANPAINTS/
198.	<b>Atactic Polypropylene</b>	STP/HTL/HYDROTECH
199.	<b>C.P. Waste, Spreaders, Urinal Flush Pipes</b>	AMERICANSTANDARD/JAQUAR/KOHLER/GROHE/SONCERA/PEARL
200.	<b>Adhesives</b>	NUWOOD/DURATUFF/PIDILITE
201.	<b>Pe-Al-Pe pipe</b>	KITEC/JINDAL/SUPREME
202.	<b>Backflow Preventer (Water Hammer)</b>	NORMEX/KESSEL/LAHRI
<b>S.NO.</b>	<b>DESCRIPTION</b>	<b>APPROVEDMAKE</b>
203.	<b>Electronic Flow Meter</b>	BLUESTAR/USHA/VOLTAS
204.	<b>Temperature Sensor/ Gauge</b>	FORBESMARSHALL/DANFOSS/WIKA
205.	<b>Float Switch</b>	NOLTA/DANFOSS/HONEYWELL
206.	<b>Dosing System</b>	MILTONROY/ASIALMI/GRUNDFOSS/PENTAIR/METACHEM
207.	<b>Liquid Level Controllers/ Liquid Level Indicator</b>	ADVANCE/HONEYWELL/DANFOSS
208.	<b>Filter/Softener</b>	IONEXCHANGE/THERMAX/PENTAIR/VOLTAS/WAE
209.	<b>Salt Saturator</b>	IONEXCHANGE/THERMAX/PENTAIR/VOLTAS/WAE
210.	<b>Vessels</b>	ASTRAL/KGM/STRUCTURAL/WAE
211.	<b>Mechanical Seal</b>	BURGMANN/SEALOL/ORAPPROVEDBY ENGINEERINCHARGE
212.	<b>Grease Trap/Separator</b>	ACO/WADE/KASSEL/WAE
	<b>FIREFIGHTINGWORK</b>	
213.	<b>Pipes</b>	TATASTEEL/JINDAL(HISSAR)/SURYA/APL APOLLO
214.	<b>Single Headed Hydrant Valves, Three Way Fire Brigade Inlet, Branch Pipe &amp; Shut Off Nozzle.</b>	G. TECH /LIFEGUARD/SAFEFIRE/AAAG INDIA
215.	<b>20mmDiaRubberPipefor Hose Reel</b>	G. TECH/LIFEGUARD/SAFEFIRE/AAAG INDIA
216.	<b>Starter, Switches, TPN Switch</b>	LAURITZ KNUDSEN/SIEMENS/SCHNEIDER
217.	<b>Pressure Switch</b>	INDFOSS/SWITZER/DANFOSS
218.	<b>Pressure Gauges</b>	HGURU/FIEBIG/EMERALD
219.	<b>Pump</b>	GRUNDFOS/KIRLOSKAR/XYLEM/CROMPTON
220.	<b>Motor</b>	ABB/SIEMENS/KIRLOSKAR/FUJI
221.	<b>Coal Tar Treatment for Pipes</b>	IWL/COATEK
222.	<b>Weld Rods</b>	ADVANI/OREQUIVALENTISI/
223.	<b>Fire Extinguishers</b>	LIFEGUARD/SAFEFIRE/AGNI/NEWAGE/MINIMAX/C EASEFIRE/AAAG INDIA

224.	<b>RRL Hose</b>	LIFEGUARD/SAFEFIRE/AGNI/NEWAGE/MINIMAX/C EASEFIRE/AAAG INDIA
225.	<b>Thermoplastic Hose Reel</b>	LIFEGUARD/SAFEFIRE/AGNI/NEWAGE/MINIMAX/C EASEFIRE/AAAG INDIA
226.	<b>Rubber Gaskets</b>	CIC/VARUNA/SAPABUILDERS
227.	<b>Engine</b>	CUMMINS/CATERPILLAR/KOEL/KIRLOSKER
228.	<b>Hose Drum</b>	LIFEGUARD/SAFEFIRE/AGNI/NEWAGE/MINIMAX/C EASEFIRE/AAAG INDIA
229.	<b>Mechanical Seal</b>	DURAMETALLIC/BURGMANN/
<b>S.NO.</b>	<b>DESCRIPTION</b>	<b>APPROVEDMAKE</b>
230.	<b>Strainer</b>	EMERALD/KIRLOSKAR/ZOLOTO
231.	<b>Installation Control Valve</b>	GUARDS/HDFIRE/TYCO
232.	<b>Pipe Supports (Band Hanger)</b>	ZIPCLIP/TARGA/HILTI/GRIPPLE/WUERTH
233.	<b>Flow Switch</b>	SYSTEMSENSOR/POTTER/HONEYWELL
234.	<b>Pipe Fittings</b>	UNIK/VS/ZOLOTOM/DRP-M
235.	<b>Anti-Vibration Mounting</b>	DUNLOP/RESISTOFLEX/KANWAL
236.	<b>Fire Sealant</b>	BIRLA3M/HILTI
237.	<b>Sprinklers (UL Listed)</b>	TYCO/HD/GTECH/VINKING/LIFEGUARD
238.	<b>MS Forged Fitting</b>	DRP/VS/TRUEFORGE
239.	<b>Deluge Valve</b>	HDFIRE/VICATAULIC/TYCO/ANVIL
240.	<b>Braided Flexible for Sprinkler</b>	VICATAULIC/TYCO/ANVIL
241.	<b>Gi Fitting</b>	DRP-M/UNIK/ZOLOTO/TARUN
242.	<b>Di Fitting Screwed</b>	NVR/DRP-M/VICTALUIC
243.	<b>GI/MS Pipes</b>	ASLISTEDINHVACSECTION/TARUN/ APLAPOLLO
244.	<b>ERW/Butt Welded Fittings</b>	MEC(JAINSON)/UNIK/ASPERTECHNICALS PECIFICATIONSANDASAPPROVEDBY ENGINEER-IN-CHARGE
245.	<b>Groove Fittings (UL Listed)</b>	VICTAULIC/JAINSON/NEW/ASPERTECHNICAL SPECIFICATIONSANDASAPPROVEDBY ENGINEER-IN-CHARGE
246.	<b>Motorized Butterfly Valve</b>	ASLISTEDINHVAC/VENTILATIONSYSYSTEM/
247.	<b>Balancing Valve</b>	ASLISTEDINHVAC/VENTILATIONSYSYSTEM
248.	<b>Pot/Y/Suction Strainer</b>	ASLISTEDINHVAC/VENTILATIONSYSYSTEM
249.	<b>C.I. Flanged/Dual Plate/Waf</b> <b>Publishing Date 25th</b> <b>May, 2026 (06:00 PM)</b> <b>Bid Document Download /</b> <b>Sale Start Date 25th</b> <b>May, 2026 (06:00 PM)</b> <b>Estimate Cost</b> <b>Rs.95,65,151/-</b> <b>EMD</b> <b>(The EMD should be</b> <b>submitted in the office of</b> <b>Chief Engineer within next</b> <b>working day latest by 1:00</b> <b>PM from the end date of bid</b> <b>submission over e-portal.</b> <b>Rs.1,91,303/- EMD</b>	ZOLOTO/SKS/AXIN/HONEYWELL/EMERALD/C ASTLE/C&R/ADVANCE/

	<p>declaration as per annexure "A" is also to be uploaded with the bid)</p> <p>Tender Fee Rs.1,000/-</p> <p>Completion Time 30 Days</p> <p>Bid Submission start date 25th May, 2026 (06:00 PM)</p> <p>Bid Submission end date 15th June, 2026 (01:00 PM)</p> <p>Technical Bid Opening date 16th June, 2026 (01:30 PM)</p> <p>Financial Bid Opening Date To be intimated later on website</p> <p>Er Type/Disk Type sluice/non-Return</p>	
250.	<b>Foot Valve with Strainer</b>	KIRLOSKAR/LEADER/ZOOTO
251.	<b>First Aid Hose Reel Drum/ Thermoplastic Hose Reels for Drums/ R.R.L. Hose &amp; C.P. Hose/</b>	NEWAGE/SAFEFIRE/LIFEGUARD/MINIMAX/CEASEFIRE/AAAG INDIA
252.	<b>Sprinkler &amp; Rosette Plates</b>	TYCO/VIKING//HD/SPRAYS SAFE/NEWAGE/AAAG INDIA
253.	<b>Flexible Connector (Drop) For Sprinkler</b>	EASYFLEX//VIKING/NEWAGE/AAAG INDIA
254.	<b>Pre-Fabricated Structural Supports and Clamps</b>	CHILLY/HITECH/AFT/ CAMRY/EASYFLEX/MUPRO
255.	<b>Anti-Suction &amp; Delivery Flexible Pipe connectors</b>	EASYFLEX/RESISTOFLEX/DUNLOP/SAIL/TATA STEELTD/RINL
256.	<b>Flexible Duct Connector</b>	MAPRO/KANWALL INDUSTRIAL CORPORATION/RESISTOFLEX
257.	<b>Stainless Steel Branch Pipe / Fireman Axe /Installation Control Valve/ 2-Way/4-Way FBC</b>	LIFEGUARD/SAFEFIRE/AGNI/NEWAGE/MINIMAX/CEASEFIRE/AAAG INDIA
258.	<b>Sprinkler Heads (UL Listed)</b>	TYCO/HD/OMAXUL
259.	<b>Pipe Protection Pypcoat Wrapping</b>	IWL/TAXA/MAC-POLYCOAT/ASPER TECHNICAL SPECIFICATIONS AND AS APPROVED BY ENGINEER-IN-CHARGE
260.	<b>Rubber Bellow</b>	KANWALL INDUSTRIAL CORPORATION/ RESISTOFLEX/AIP VALVES
261.	<b>Flexible Drop (UL Approved)</b>	SAFEX/HD/KOFULSO
262.	<b>Anti-Vibration Pad</b>	CORIDUNLOP/EASYFLEX/FLEXIONICS/ RESISTOFLEX/EMERALD/

263.	<b>Fire Pumps /Motors For Fire Pumps</b>	SIEMENS/KIRLOSKAR/CROMPTON/ABB/GRUNDFOS
264.	<b>Electrical Switch Gears</b>	AS LISTED IN ELECTRICAL SYSTEM
265.	<b>Power And Control Cables</b>	AS LISTED IN ELECTRICAL SYSTEM
266.	<b>Control Panel of Terrace Pumps</b>	AS LISTED IN ELECTRICAL SYSTEM
267.	<b>Voltmeter &amp; Ammeter</b>	AS LISTED IN ELECTRICAL SYSTEM
268.	<b>Indicating Lamp And Selector Switches</b>	AS LISTED IN ELECTRICAL SYSTEM
269.	<b>CT/PT</b>	AS LISTED IN ELECTRICAL SYSTEM
270.	<b>MCCB/MPCB/MCB/RCCB</b>	AS LISTED IN ELECTRICAL SYSTEM
271.	<b>Contractors/Times, Overload Relays</b>	AS LISTED IN ELECTRICAL SYSTEM
272.	<b>Annunciation Panels</b>	AS LISTED IN ELECTRICAL SYSTEM
273.	<b>Single Phase Preventer</b>	AS LISTED IN ELECTRICAL SYSTEM
274.	<b>Starter</b>	AS LISTED IN ELECTRICAL SYSTEM
275.	<b>Current Transformer (Cast Resin)</b>	AS LISTED IN ELECTRICAL SYSTEM
<b>STPWORK</b>		
276.	<b>M.S Pipe</b>	TATA STEEL/ JINDAL(HISSAR)/ SURYA/APL APOLLO
277.	<b>Sluice/Gate Valve</b>	ZOLOTO/DRP/CIM/AIP/C&R/NVR/EMERLALD/ADVANCE
278.	<b>Non-Return Valve</b>	ZOLOTO/DRP/CIM/AIP/C&R/NVR/EMERLALD/ADVANCE
279.	<b>G.I. Pipe</b>	TATASTEEL/JINDAL(HISSAR)/SURYA/APL APOLLO
280.	<b>CPVC Pipe</b>	SUPREME/ASTRAL/FINOLEX/ASHIRWAD

281.	<b>HDPE Pipe</b>	EMCO/ RELIANCE/ ORIPLAST/ SUPREME/ VECTUS
282.	<b>Butterfly Valve</b>	ZOLOTO/DRP/CIM/AIP/C&R/NVR/EMERLALD
283.	<b>Ball Valve</b>	ZOLOTO/DRP/CIM/AIP/C&R/NVR/EMERLALD
284.	<b>C.I Pipe</b>	IISCO/ELECTROSTEELCASTING
285.	<b>Sludge/Sewage Pump</b>	GRUNDFOS/KIRLOSKAR/XYLEM/ARMSTRONG/ LUBI
286.	<b>Pumps</b>	GRUNDFOS/KIRLOSKAR/XYLEM/ARMSTRONG/ LUBI
287.	<b>Plate Settler</b>	IONEXCHANGE/NETSOLWATER/THERMAX/ BIKON/PUREINDIA/BRISANZIA
288.	<b>Agitator</b>	IONEXCHANGE/NETSOLWATER/THERMAX/ BIKON/PUREINDIA/BRISANZIA
289.	<b>Air Blower</b>	SWAM/KEY/EVEREST
290.	<b>Reduction Gear Box</b>	RADICON/ELICON/SHANTI
291.	<b>Pressure Gauge</b>	AVINSTRUMENTS/H.GURU/FIBIG/HONEYWELL
292.	<b>Chlorinator</b>	ALM/TOSHKON
293.	<b>Sump Pump</b>	GRUNDFOS/KIRLOSKAR/XYLEM/ARMSTRONG/ LUBI
294.	<b>Pressure Gauge/D.P Gauge</b>	EMERALD/FIEBIG/HGURU/AXIN
295.	<b>Level Controller/Indicator</b>	ADVANCE/As per technical specifications
296.	<b>Flow Meter/Water Meter</b>	KENT/HONEYWELL/KAMSTRUMP
297.	<b>C.I. Double Flanged Sluice Valve</b>	ASLISTEDINPLUMBING&SANITARY
298.	<b>C.I. Disk Type Non-Return Valves</b>	ASLISTEDINFIREFIGHTING
299.	<b>C.I. Strainer</b>	LEADER/SANT/CASTLE
300.	<b>PVC Valves</b>	SUPREME/ASTRAL/FINOLEX/ASHIRWAD/ SUDHAKR
301.	<b>C.I./D.I. Manholes Cover</b>	ASLISTEDINPLUMBING&SANITARY
302.	<b>Plastic Encapsulated Foot Rest</b>	KGM/KK/ORAPPROVEDBYENGINEER INCHARGE
303.	<b>Filter Feed Pump / Hydro-Pneumatic Pumping Systems</b>	GRUNDFOS/ITT/WILO/KSB/KIRLOSKAR
304.	<b>Pressure Transmitters/ Hydrostatic Level Indicators</b>	WIKA/SIEMENS/JOHNSONCONTROL
305.	<b>Pressure Gauges</b>	ASLISTEDINHVAC/VENTILATIONSYSTEM
306.	<b>Vibration Pads/Suction/Delivery Flexible Connectors</b>	ASLISTEDINHVAC/VENTILATIONSYSTEM
307.	<b>Pressure Sand&amp; Activated Carbon Filter</b>	M.S. PREFABRICATED/WAE/FONTUS/ HYDROTECH
308.	<b>Ultra Violet Disinfection For Treated Effluent</b>	ALPHAUV/SUKRUT/NEOTEC/WAE
309.	<b>Air Diffusers</b>	BOBKAY/MMAQUA/REHAU
310.	<b>MBBR Media For Aeration Tank</b>	MMAQUA/PPAQUA/TECPROWAE
311.	<b>Tube Settler Media</b>	MMAQUA/PPAQUA/TECPRO
312.	<b>Centrifuge</b>	PENNWALTINDIALTD/ALPHALAVAL/ HUMBOLDTWEDAG
313.	<b>Level Gauge</b>	H. GURU/FIEBEIG/WIKA

314.	<b>Ph Meter/Conductivity Meter/Do Meter/TDS Meter</b>	HACH/SIEMENS/E-H/ROSEMOUNT/FORBESMARSHALL/ABB/
315.	<b>Ultra Violet Water Purifier (WTP/STP)</b>	ALFAUVMUMBAI/PENTAIR/EUREKA/WAE
316.	<b>Symphonic Roof Drainage System</b>	GEBERIT/SAINTGOBAIN/ALFAUVMUMBAI
317.	<b>Ozonisation System</b>	ORAIPL/OZONICS/VOLTAS/WAE
318.	<b>Geared Motor</b>	BONFIGLIOLI/GREASECOTTON/MOTOVARIO
319.	<b>Exhausters</b>	NICOTRA/KRUGGER/GREENHECK
320.	<b>Compost Plant</b>	EXCEL/SMARTENVIROBOMBAY/ECOMAN/CLEANINDIA
321.	<b>Solid Waste Handling and Conveying</b>	ENVTECH(P)LTD./ROSAROCA
322.	<b>Clear Water Pump</b>	ASPERPUMPSANDWATERTREATMENT SYSTEM
323.	<b>Panel Boxes (For Plc)</b>	RITTAL/BCH/DELTA
324.	<b>Lighting Distribution Board</b>	AS PER ELECTRICAL LIST OF MAKE
325.	<b>Ultra Violet Disinfection for Treated Effluent</b>	ALFA/SUKRUT/TROJAN/WAE
326.	<b>Ozonator</b>	CREATIVE/AMOZONICS/WAE
327.	<b>Testing Meters</b>	ABB/SIEMENS/LAURITZ KNUDSEN
328.	<b>Online Monitoring System</b>	TETHYS/XYLEM/FORBESMARSHALL
329.	<b>Ultrafiltration System</b>	QUA/GE/HYDRONAUTICS/WAE
330.	<b>Reverse Osmosis Membrane</b>	GE/HYDRONAUTICS/TORAY/MEMBRAN SOLUTION/WAE
331.	<b>FRP Vessels &amp; MCF</b>	PENTAIR/THERMAX/AMTEK/WAE
	<b>ELECTRICAL SYSTEM</b>	
332.	<b>Moulded Case Circuit Breaker (MCCB)</b>	ABB/SIEMENS/ANCHOR/ SCHNEIDER/ LAURITZ KNUDSEN
333.	<b>MCB's/Isolator's/ Distribution Board's</b>	LAURITZ KNUDSEN/ABB/SIEMENS/ LEGRAND/ SCHNEIDER
334.	<b>Air Circuit Breaker (ACB)</b>	LAURITZ KNUDSEN/ABB/ SIEMENS/SCHNEIDER
335.	<b>Residual Current Circuit Breaker (RCBO'S)</b>	ABB/SIEMENS/SCHNEIDER/C&S/L&T
336.	<b>Power/Aux. Contactor</b>	LAURITZ KNUDSEN/SCHNEIDER ELECTRIC/ABB/ SIEMENS
337.	<b>Current Transformer (Cast Resin)</b>	LAURITZ KNUDSEN/SCHNEIDER ELECTRIC/ABB/ SIEMENS
338.	<b>Indicating Lamps LED Type and Push Button</b>	LAURITZ KNUDSEN/SCHNEIDER ELECTRIC/ABB/ SIEMENS
339.	<b>Electronic Digital Meters(A/V/PF/Hz/KW/K WH) With LED Display</b>	LAURITZ KNUDSEN/ ABB/SCHNEIDER ELECTRIC/ABB/SIEMENS
340.	<b>Capacitors</b>	LAURITZ KNUDSEN/SCHNEIDER ELECTRIC/ABB/SIEMENS/ EPCOS

341.	<b>Protection Relays/IDMT Relays/AP FC Panel/ Relay</b>	LAURITZ KNUDSEN/SCHNEIDERELECTRIC/ABB/SIEMENS
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342.	<b>Electrical Panel</b>	TRICOLITE/LAURITZ KNUDSEN/HAVELLS/ ADVANCE CONTROL SYSTEM/SPC/PRECESSION SYSTEM CONTROL/ SUPERTECH CONTROL SYSTEM
343.	<b>Transformer</b>	ABB/ SCHNEIDER/ CROMPTON/ KIRLOSKAR
344.	<b>H.T. Panel</b>	ABB/CROMTONGREAVES/SCHNEIDER/SIEMENS/ ADVANCE CONTROL SYSTEM
345.	<b>SPD</b>	MERSEN/EATON/WEIDMULLER
346.	<b>Hybrid/Capacitor Panel</b>	SCHNEIDER/ABB/LAURITZ KNUDSEN/HAVELLS/SUPERTECH CONTROL SYSTEM/ADVANCE CONTROL SYSTEM/ PRECESSION SYSTEM CONTROL
347.	<b>Automatic Transfer Switch</b>	VITZROTECH/ASCO/CATERPILLAR/C&S
348.	<b>Bus Ducts/Rising Mains</b>	SCHNEIDER/SIEMENS/LEGRAND/ABB/HAVELLS/SU PER CONTROL SYSTEM/ADVANCE CONTROL SYSTEM/ PRECESSION SYSTEM CONTROL/ SPC ELECTROCTECH PVT LTD
349.	<b>Diesel Engine</b>	CUMMINS/KIRLOSKAR/CATERPILLAR
350.	<b>Alternator</b>	K.E.C/STAMFORD/LEROYSOMER/PERKINS
351.	<b>Anti-Vibration Mountings</b>	DUNLOP/RESISTOFLEX/EASYFLEX
352.	<b>Fuse Switch Disconnecter</b>	LAURITZ KNUDSEN/ABB/SCHNEIDER/SIEMENS/LEGRAND
353.	<b>Floor Truncking / Raceways</b>	ABB/LEGRAND/MK/ PRECESSION SYSTEM CONTROL/ SPC ELECTROCTECH PVT LTD
354.	<b>Cable Trays (Factory Fabricated)</b>	INDEANA-MUMBAI/MEM/ SUPERTECH CONTROL SYSTEM /LEGRAND/PRECESSION/AKG/ SPC ELECTROCTECH PVT LTD
355.	<b>Power Cables/Control CablesUpTo11&amp;33KV</b>	KEI/POLYCAB/HAVELLS/RRKABELS/AKG/BATRAHE NLEY
356.	<b>Copper Conductor Control Cable /Communication Cables/ Signal Cable</b>	KEI/ POLYCAB/ HAVELLS/RRKABELS/AKG/BATRAHENLEY
357.	<b>Copper Conductor PVC Insulated Wires</b>	KEI/ ANCHOR/ POLYCAB/ HAVELLS/AKG
358.	<b>M.S. Conduit (ISI Marked) And Accessories</b>	B.E.C/ RMCON/ ATUL/ AKG
359.	<b>G.I./PVC Conduit (ISI Marked) And Accessories</b>	AKG/ ATUL/ FINOLEX/SUPREME
360.	<b>Switch, Plugs &amp; Socket And accessories</b>	LEGRAND/ ABB/ SCHNEIDER/ MK (HONEYWELL)/ANCHOR/ WIPRO
361.	<b>Cable Glands &amp;Lugs</b>	DOWELL'S/COMET/COSMOS/C&S
362.	<b>Internal &amp;External Lighting/Lighting Fixture</b>	PHILIPS/WIPRO/BAJAJ/HAVELLS/LEGERO/PANASO NIC
363.	<b>External Lighting Pole</b>	BAJAJ/MAYFAIR/CROMPTON/PHILIPS/WIPRO UTKARSH/INSTAPOWERS/LEGERO/HAVELLS
364.	<b>Copper Conductor Telephone Wires</b>	FINOLEX/KEI/POLYCAB/BONTON/AKG/RRKABEL

365.	<b>Copper Conductor Co-Axial T.V. Cable</b>	FINOLEX/KEI/POLYCAB/BONTON/AKG/RRKABEL/B ATRAHENLEY
366.	<b>Telephone Tag Blocks</b>	KRONETYPE/ASPERTECHNICAL SPECIFICATION
367.	<b>Ceiling Fans</b>	BAJAJ/HAVELLS/CROMPTONGREAVES/
368.	<b>Exhaust Fan</b>	BAJAJ/USHA/CROMPTONGREAVES

### **Additional Terms and conditions**

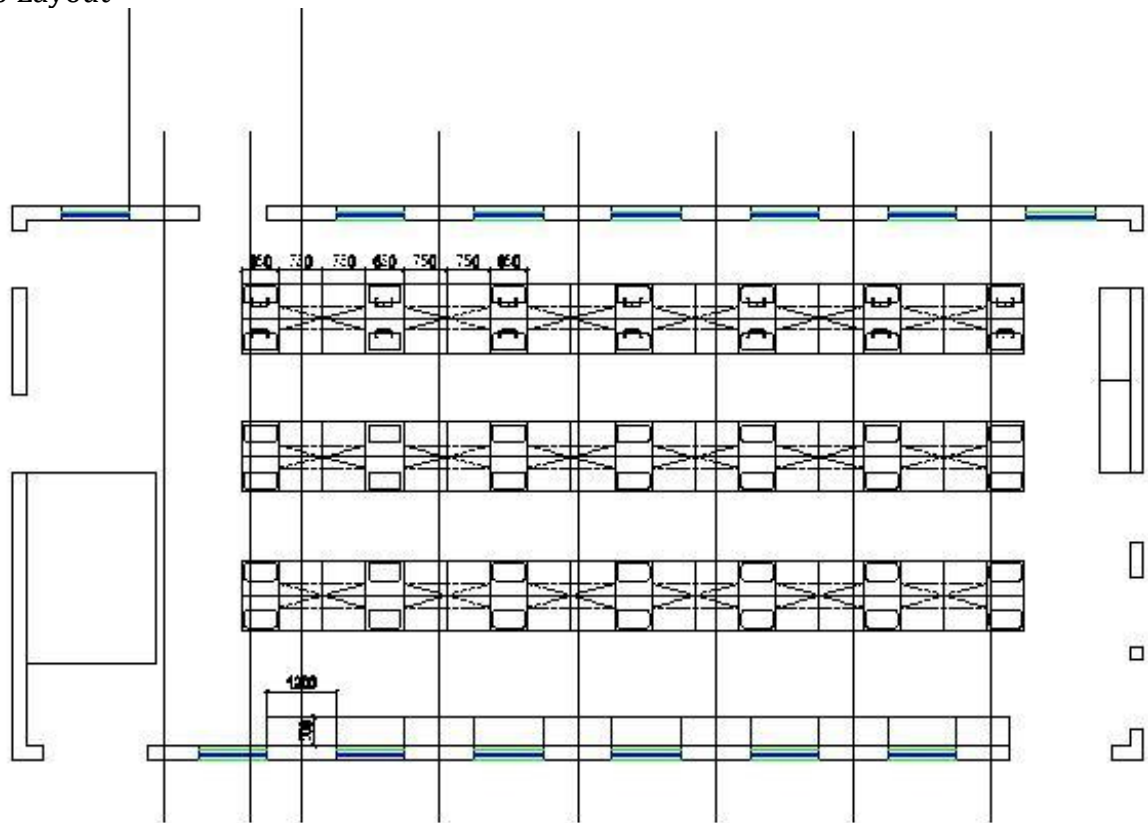
1.4 To be eligible for award of contract, Bidder / OEM must submit the Technical Datasheet with detailed laboratory layout design and drawings, isometric images, auxiliary plumbing and LPG layouts with proper justification in accordance to the bid specification document to be uploaded in order qualify in the technical evaluation stage. The bidder will be marked disqualified if the required datasheet is not submitted or found not-satisfactory to the technical committee.

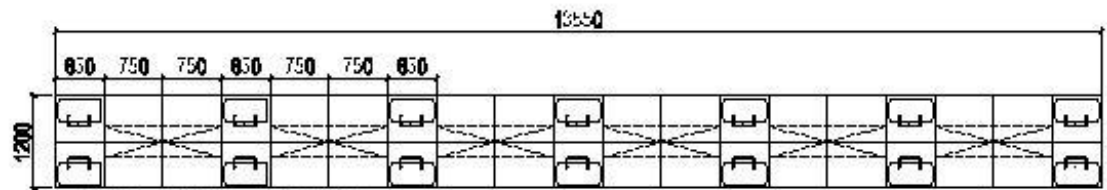
1.5 To be eligible for award of contract, Bidder / OEM must possess following Certificates / Test Reports on the date of bid opening (to be uploaded with bid):

<b>Compliance Certificates</b>	<b>Metal Test Reports</b>	<b>ISO Certificates</b>
BIFMA	Gloss @60-degree test	13485
BIFMA HCF 8.1	Hardness test	14001
SEFA-10	Impact resistance test	17025
SEFA 8-M 2016	Cross cut adhesion test	27001
GREEN GUARD	Elasticity-Cupping test	45001
ANSI/ASHRAE 110-1995	Salt spray test	50001
EN13150	Conical Bend Test as per ASTM D522	
EN14727		

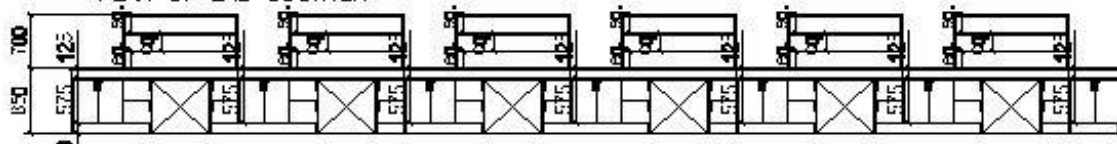
1.6 One perfectly sized 300 mm Length x 300 mm Width x 1.2 mm thickness laser cut according to the Institute laser printed sample with Consignee's institution logo imprinted should reach the Atma Ram Sanatan Dharma College, Dhaula Kuan, New Delhi -110021 One day before bid closing date.

# Lab Layout





PLAN OF LAB COUNTER



ELEVATION OF LAB COUNTER



**PRICE SCHEDULE**

**(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevent columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only )**

<b>NUMBER #</b>	<b>TEXT #</b>	<b>NUMBER #</b>	<b>TEXT #</b>	<b>NUMBER #</b>	<b>NUMBER #</b>
<b>Sl. No.</b>	<b>Item Description</b>	<b>Quantity</b>	<b>Units</b>	<b>RATE including All Taxes In Figures To be entered by the Bidder in Rs. P</b>	<b>TOTAL AMOUNT With All Taxes in Rs. P</b>
<b>1</b>	<b>2</b>	<b>4</b>	<b>5</b>	<b>13</b>	<b>53</b>
1	<b>Part I- CIVIL AND PLUMBING WORKS</b>				
1.01	Brick work with F.P.S.bricks of class designation 75 in foundation and plinth in: Cement mortar 1:6 (1 cement : 6 coarse sand)	2.60	cum		<b>0.00</b>
1.02	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 :				
1.03	Cement mortar 1:6 (1 cement : 6 coarse sand)	2.60	cum		<b>0.00</b>
1.04	Half brick masonry with F.P.S. bricks of class designation 75 in superstructure above plinth level up to floor V level. Cement mortar 1:4 (1 cement :4 coarse sand)	32	Sqm		<b>0.00</b>
1.05	Extra for providing and placing in position 2 Nos. 6mm dia. M.S. bars at every third course of half brick masonry (with F.P.S. bricks).	32	Sqm.		<b>0.00</b>

1.06	Providing edge prefinished or moulding to 18mm thick marble stone counters, Vanities, Treads etc., including machine polishing to edge to give stone nature finish etc. complete as per design approved by Engineer-in-Charge.(Granite work)	22	Rmtr.		<b>0.00</b>
1.07	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.	36	Sqm.		<b>0.00</b>
1.08	Providing and fixing fly proof stainless steel grade 304 wire gauge, to windows and clerestory windows using wire gauge with average width of aperture 1.4mm in both directions with wire of dia. 0.5mm all complete. With 12mm uPVC or aluminum powder coated U beading	38	Sqm.		<b>0.00</b>

1.09

Providing and fixing factory made uPVC glazed/wire mesh windows/doors comprising of lead free uPVC multi-chambered frame, sash and mullion/coupler (where ever required) extruded profiles having minimum wall thickness of 1.70 mm for Series R1 and R2 profiles and 2.10 mm for Series R3 and R4 profiles conforming to EN: 12608 in any shape, colour and design duly reinforced with galvanized mild steel section made of required shape & size as per CPWD Specification, uPVC extruded glazing beads, interlocks and Inline sash adaptor (where ever required) of appropriate dimension, EPDM gasket, hardware, SS 304 grade fasteners of minimum 8 mm dia with countersunk head, comprising of matching polyamide PA6 grade sleeve for fixing frame to finished wall as per IS 1367: Part 1 to 14, plastic packers, plastic caps and necessary stainless steel screws etc. Profile of frame, sash & mullion (if required) shall be mitred cut and fusion welded/mechanically jointed duly sealed at all corners, including drilling of holes for fixing hardware and drainage o water etc. After fixing frame the gap between frame and

	adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of approved size and quality, all complete as per approved drawing conforming to CPWD specification and direction of engineer-in-charge Section of steel reinforcement and cross sections of uPVC profiles to be set as per design approved by Engineer -in charge. Wire mesh/ Glazing of plain /toughened/ laminated/ double glass unit with/ without high performance coatings as per design requirements and conforming to IS:3548 and IS :16231 shall be paid seperately. Note :- Structural design proof checked from a government institute to be provided by the manufacturer for (i) sites with basic wind speed >45 m/ sec as per IS 875-Part 3 (ii) sites with structure height more than 20 m for all wind speeds				
1.1	Two track two panel sliding window with Aluminium channel for roller track, wool pile, nylon rollers with SS 304 body.				
1.11	Using R 3 series with frame (55 mm and above) x(40 mm and above) and sash 930 mm and above) x( 55 mm and above) with Zink alloy (zamak) powder coated handle on every panel along with multi point locking system (height upto 1.8m)	22	Sqm.		<b>0.00</b>

1.12	Three track three panels sliding window with two glazed and one wire mesh panels with aluminium channel for roller track, wool pile, nylon rollers with SS 304 body				
1.13	Using R 3 series with frame (98 mm and above) x(40 mm and above) and both glazed and fly screen sash (30 mm and above) x( 55 mm and above) with Zink alloy (zamak) powder coated handle on every panel along with multi point locking system (height upto 1.8m)	75.25	Sqm.		<b>0.00</b>
1.14	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	928	Kg.		<b>0.00</b>
1.15	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. In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works.	1200	Kg.		<b>0.00</b>

1.16	Providing and fixing stainless steel ( Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	250	Kg.		0.00
1.17	Providing & fixing glass panes with putty and glazing clips in upvc windows, windows, clerestory windows, all complete with : 5mm thick glass panes	28	Sqm.		0.00
1.18	Providing and fixing 10 mm thick acid and/or alkali resistant tiles of approved make and colour using acid and/or alkali resisting mortar bedding, and joints filled with acid and/or alkali resisting cement as per IS : 4457, complete as per the direction of Engineer-in- Charge.				

1.19	In flooring on a bed of 10 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand)				
1.2	Acid and alkali resistant tile	12	Sqm.		0.00
1.21	In dado/skirting on 12 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand) Acid and alkali resistant tile	3	Sqm.		0.00
1.22	Providing and laying Vitrified tiles in floor 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, laid on 20 mm thick cement mortar 1:4 (1 cement: 4 coarse sand) jointing with grey cement slurry @3.3 kg/sqm including grouting the joints with white cement and matching pigments etc. The tiles must be cut with the zero chipping diamond cutter only . Laying of tiles will be done with the notch trowel, plier, wedge, clips of required thickness, leveling system and rubber mallet for placing the tiles gently and easily.				
1.23	Glazed Vitrified tiles Matt/Antiskid finish of size				

1.24	11.41A.3.1 Size of Tile 600 x 600 mm sqm	24	Sqm.		<b>0.00</b>
1.25	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	24	Sqm.		<b>0.00</b>
1.26	Providing and laying Polished Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge.				
1.27	Polished Granite stone slab colour of Black, Cherry/Ruby Red or equivalent	24	Sqm.		<b>0.00</b>

1.28	Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes.				
1.29	110 mm diameter	12	Mtr		<b>0.00</b>
1.3	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS:13592 Type A, including jointing with seal ring conforming to IS:5382, leaving 10mm gap for thermal expansion.				
1.31	Single tee without door 110x110x110 mm	3	Each		<b>0.00</b>
1.32	Bend 87.5° 110 mm bend	3	Each		<b>0.00</b>
1.33	12 mm cement plaster of mix :				
1.34	1:4 (1 cement: 4 fine sand):	22	sqm		<b>0.00</b>
1.35	15mm cement plaster on the rough side of single or half brick wall of mix : 1:4 (1cement: 4 fine sand)	41	Sqm.		<b>0.00</b>

1.36	13.48 Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications : 13.48.1 Two or more coats applied on walls @ 1.25 ltr/10 sqm over and including one coat of Special primer applied @ 0.75 ltr /10 sqm sqm 193.70	34	Sqm.		<b>0.00</b>
1.37	Painting wood	34	Sqm.		<b>0.00</b>
1.38	13.52 Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete. 13.52.1 On steel work sqm 241.75	22	Sqm.		<b>0.00</b>
1.39	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :				
1.4	Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture.	268.00	Sqm		<b>0.00</b>
1.41	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.	22.00	sqm		<b>0.00</b>

1.42	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete. Flexible pipe 32 mm dia	4.00	Mtr.		<b>0.00</b>
1.43	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	4.00	Each		<b>0.00</b>
1.44	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.,				
1.45	20 mm nominal outer dia .Pipes.	210.00	Mtr.		<b>0.00</b>
1.46	25 mm nominal outer dia .Pipes.	20.00	Mtr.		<b>0.00</b>

1.47	32 mm nominal outer dia .Pipes.	25.00	Mtr.		<b>0.00</b>
1.48	Providing and fixing uplasticised PVC connection pipe with brass unions: 45cm length and 15mm nominal bore	3.00	Each		<b>0.00</b>
1.49	Providing and fixing CP Grating Square Grating, Size: 5"X5" SS304 Brand Onida Shape Square Material Stainless Steel Size 5" x 5"/6" x 6" Cat No 60/3025 Model No 5120/5121 125 mm nominal dia with 25 mm waste hole/without hole	4.00	Each		<b>0.00</b>
1.5	Constructing brick masonry manhole in cement mortar 1:4 ( 1 cement : 4 coarse sand ) with R.C.C. top slab with 1:1.5:3 mix (1 cement : 1.5 coarse sand (zone- III): 3 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement: 4coarse sand (zone-III): 8graded stone aggregate 40mm nominal size), inside plastering 12mm thick with cement mortar 1:3 (1ement: 3coarse sand) finished with floating coat of neat cement and making				
1.51	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not	4.00	Each		<b>0.00</b>

	less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :With common burnt clay F.P.S. (non modular) bricks of class designation 7.5				
1.52	Constructing brick masonry road gully chamber 50x45x60 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame complete as per standard design : bricks in cement mortar 1:4 (1 cement : 4 coarse sand ) with precast R.C.C. vertical grating complete as per standard design : 19.28.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	4.00	Each		<b>0.00</b>
1.53	Filling the gap in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and dirUpto 5mm depth and 5 mm width	230.40	Mtr.		<b>0.00</b>
1.54	Providing and fixing soil, waste and vent pipes Slung piping ,vertical piping or horizontal piping in uPVC SWR pipings including all fittings , clamps hanging ropes and fasteners with or	24.00	Mtr.		<b>0.00</b>

	without doors . Only length is to be measured from GT , Manhole to Cowl or fittings. 75 mm dia				
1.55	Providing and fixing soil, waste and vent pipes Slung piping ,vertical piping or horizontal piping in uPVC SWR pipings including all fittings , clamps hanging ropes and fasteners with or without doors . Only length is to be measured from GT , Manhole to Cowl or fittings. 110 mm dia	24.00	Mtr.		<b>0.00</b>
1.56	P/F CPVC union approved make CPVC pipes i/c cutting and making all complete as per the directions of Engineer-in-charge.				
1.57	32 mm nominal bore	2.00	Each		<b>0.00</b>
1.58	Extra for providing 8mm thick float glass in place of 5mm thick glass	28.00	Sqm.		<b>0.00</b>
1.59	Extra for providing toughened glass pane instead of ordinary float glass panes in doors, windows and clerestory:	16	Sqm.		<b>0.00</b>
1.6	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge				

1.61	Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix)	12.00	cum		<b>0.00</b>
1.62	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge.	6.00	cum		<b>0.00</b>
1.63	Extra for cutting reinforcement bars manually/ by mechanical means in R.C.C. or R.B. work (Payment shall be made on the cross sectional area of R.C.C. or R.B. work) as per direction of Engineer in-charge.	22.00	Sqm		<b>0.00</b>
1.64	Extra for scrapping, cleaning and straightening reinforcement from R.C.C. or R.B. work.	140.00	kg		<b>0.00</b>
1.65	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.				
1.66	In cement mortar	12.00	cum		<b>0.00</b>
1.67	Removing mortar from bricks and cleaning bricks including stacking within a lead of 50 m (stacks of cleaned bricks shall be measured):				

1.68	From brick work in cement mortar	6.00	nos.		<b>0.00</b>
1.69	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :				
1.7	Of area beyond 3 sq. metres	38.00	each		<b>0.00</b>
1.71	Dismantling wood work in frames, trusses, purlins and rafters up to 10 metres span and 5 metres height including stacking the material within 50 metres lead : 15.14.1 Of sectional area 40 square centimetres and above	1.1	Cum		<b>0.00</b>
1.72	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	112.00	Cum		<b>0.00</b>
1.73	<b>PART-II ELECTRICAL WORK</b>				

1.74	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:Group A	40.00	Point		<b>0.00</b>
1.75	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.:Group A	40.00	Point		<b>0.00</b>
1.76	Wiring for twin control light point with 1.5 Sq.mm FRLS PVC insulated copper conductor single core cable in surface/recessed medium class PVC conduit, 2 way 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.	4.00	Point		<b>0.00</b>

1.77	Wiring for circuit/submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/recessed medium class PVC conduit as required.				
1.78	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	50.00	Mtr.		<b>0.00</b>
1.79	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	90.00	Mtr.		<b>0.00</b>
1.8	2 X 6 sq. mm + 1 X 6 sq. mm earth wire	100.00	Mtr.		<b>0.00</b>
1.81	Providing and fixing hexagonal fan box circular/ Hexagonal cast iron or M.S. sheet box for ceiling fan clamp, of internal dia 140 mm, 73mm height, top lid of 1.5 mm thick M.S. sheet with its top surface hacked for proper bonding, top lid shall be screwed into the cast iron/ M.S. sheet box by means of 3.3 mm dia round headed screws, one lock at the corners. Clamp shall be made of 12 mm dia M.S. bar bent to shape as per standard drawing.	4.00	Each		<b>0.00</b>
1.82	Supply and drawing following pair, 0.5 sq.mm. FRLS PVC insulated annealed copper conductor, unarmoured telephone cable in the existing surface / recessed steel/				

	PVC conduit as required.2 Pair				
1.83	2 Pair	50.00	Mtr.		<b>0.00</b>
1.84	Supplying and fixing following size / modules, GI box along with modular base & cover plate for modular switches in recess etc as required: 1or2 Module (75mmx75mm)	8.00	Each		<b>0.00</b>
1.85	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.	34.00	Mtr.		<b>0.00</b>
1.86	25 mm				
1.87	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
1.88	15/16 amp switch	6.00	Each		<b>0.00</b>
1.89	6 pin 15/16 amp socket outlet	2.00	Each		<b>0.00</b>

1.9	Telephone socket outlet	2.00	Each		<b>0.00</b>
1.91	Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	4.00	Each		<b>0.00</b>
1.92	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 A modular socket outlet and 5/6 A modular switch, connections etc. as required. (For light plugs to be used in non residential buildings).				
1.93	1 or 2 Module (75mm x 75mm)	20.00	Each		<b>0.00</b>
1.94	8 Module (125mm x 125mm)	42.00	Each		<b>0.00</b>
1.95	Supply and fixing of 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.	62.00	Each		<b>0.00</b>

1.96	SITC of 10 watt mirror light fixture made of extruded aluminium housing suitable for 220 Volt AC with system lumens output of 2000 or higher colour temp. 6500K and efficacy better than 100 lumens/watt, with integral electronic driver, general colour rendering index (CRI) Ra > 80. Service life L70 (tq 25 °C) =50,000 h. IK02/0,2 J, P.F>0.95, THD<10%, Protection IP20 etc complete as reqd.	10.00	Each		<b>0.00</b>
1.97	SITC of 1200mm (Nominal Size) LED luminaire of 36-40 watt made of extruded aluminium housing suitable for 220 Volt AC with system lumens output of 2000 or higher colour temp. 6500K and efficacy better than 100 lumens/watt, with integral electronic driver, general colour rendering index (CRI) Ra > 80. Service life L70 (tq 25 °C) = 50,000 h. IK02/0,2 J, P.F>0.95, THD<10%, Protection IP20 etc complete as reqd.	4.00	Each		<b>0.00</b>
1.98	SITC of 12-15W LED surface Downlighter with a nominal system lumen output of 1300 lumens and a minimum system efficacy of 100 lm/W. The luminaire shall have a rated system lifetime of 50,000 burning hours at L70 with LG7 Complaint,new backlit design . The luminaire should have a color	4.00	Each		<b>0.00</b>

	temperature between 4000K and CRI>80. The luminaire shall meet IP20 rating with THD<10% and PF > 0.95. The luminaire housing should made of aluminium and the luminaire optics shall have a high efficiency diffuser with more than 85% transmittance etc complete as reqd.				
1.99	Supplying, Installation, Testing and Commissioning of surface mounting IP-65, 10 Watt LED bulk head light fitting with polycarbonate diffuser, single phase, 100-270V AC, effiicacy 100 Lumens/ watt complete with integral electronic driver etc complete as reqd.	12.00	Each		<b>0.00</b>
2	Supply, Installation, Testing and Commissioning of 1200 mm sweep, BEE 5 star rated, ceiling fan with Brush Less Direct Current (BLDC) Motor, class of insulation: B, 3 nos. blades, 30 cm long down rod, 2nos. canopies, shackle kit, safety rope, copper winding, Power Factor not less than 0.9, Service Value (CMM/W) minimum 6.85, Air delivery minimum 215 CMM, 350 RPM (tolerance as per IS : 374-2019), THD less than 10%, remote or electronic regulator unit for speed control and all remaining accessories including safety pin, nut bolts,	32.00	Each		<b>0.00</b>

	washers, temperature rise=75 degree C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC Supply, earthing etc. complete as required.				
2.01	Supplying, Installation, Testing and Commissioning of following sizes Heavy duty Exhaust Fan with Aluminium Louvers including connection with 3 core PVC insulated PVC sheathed flexible copper conductor cable on the existing window opening / Structure / Box complete etc. as required: 300mm sweep 900 rpm.The exhaust fan shall be fixed on minimum 10 mm thick bakelite sheet having suitable opening for exhaust fan.	8.00	Each		<b>0.00</b>
2.02	<b>Part II- LAB COUNTERS IN CRCA STEEL AND ALLIED EQUIPMENT</b>				
2.03	CHEMISTRY WORK BENCH				
2.04	Modular island Workbench with as per attached drawings and specifications- Table Dimension-133550mm W*1200 mm D*850 mm H,				

	Over counter Storage Dimension-1500 mm L*400 mm D* 700 mm H				
2.05	<p>Laboratory Workstations in Plinth mounted design</p> <p>General Description: Laboratory furniture must be tested as per SEFA-8M standards. All modular construction &amp; design must be made of mainly skin passed/ zero spangle double skin pass CRCA steel sheet duly coated with at least 50 - 60 micron Epoxy Powder Coated in panel form and in CKD (Completely Knocked Down) construction. The design should have provision for reconfiguration for change in layout using simple tooling and should provide independent access to the utilities installed, electrical panel &amp; instrumentation panel. It should be removable without removing other panels. All CRCA steel sheet components are of superior brand like TATA Steel / Posco/ Jindal/ SAIL and are fabricated by precision shearing, levelling, and notching, piercing, machines to achieve consolidated dimensions within close tolerances under the strict quality checks and assembled with the aid of fixtures. Exposed welding marks should be polished smooth to improve aesthetic. Corner intersections of vertical and horizontal members should in the same plane with bolted joints and should be suitably aligned. The height of Laboratory Work Stations should be 850 mm in metallic construction designed to have completely flexible modular system. Each module will have independent base frame. Necessary leg space are provided between two modules wherever required. Rear portion of the leg space are covered with the enclosure panel. Work table should consist of; a) SEFA-8</p>				

	<p>standards heavy duty under cabinets &amp; drawers: SEFA-8 standards heavy duty under module, comprising of two shutters with two vertical x2 horizontal shelves under each sink unit of 750 mm width and - one shutter 375 mm wide -two horizontal shelves under each work top of 750 mm width- while remaining 375 mm under each worktop to be empty for maintenance space .</p>				
2.06	<p>. Cabinet shutter will be in double skin construction and shall be provided with heavy duty, knuckle and barrel type SS hinges and positive catch arrangement. Shutter and drawer handles are also provided with recessed designed in Aluminum const. with pure epoxy powder coating. The under module shall be fabricated out of heavy gauge special grade CRCA steel sheet in weldless construction and shall be finished with pure epoxy powder coating for extraordinary corrosion resistance.</p> <p>- Detailed specifications and thickness of CRCA items in each module:</p> <ul style="list-style-type: none"> <li>- Cabinet end panels; min. 1.0 mm thick CRCA steel sheet</li> <li>- Cabinet rear panel and top panel; min. 1.0 mm thick CRCA steel sheet</li> <li>- Cabinet base skid; 1.0 mm thick CRCA steel sheet</li> <li>- Cabinet drawers; 1.0</li> </ul>				

	<p>mm thick CRCA steel sheet - Cabinet shutters &amp; drawer front panels; double skin const, min 0.8 mm thick CRCA steel sheet - Cabinet main frame structure and drawer slide rails, 1.6 mm thick CRCA steel sheet - Each cabinet shall have self-standing type base skid plinth.</p>				
2.07	<p><b>REMOVABLE BACK PANELS:</b> These cover panels should cover the service lines (eg: for sink, Laboratory faucets, Valves etc. with complete pipeline for inlet and outlet for water supply, drainage , PNG and electrical Switch, Socket, etc with complete internal electrical wiring as per standard wherever required) that run through the middle for the island units. These should be easily removable (unclipped) and the service line should be accessed for maintenance. They should be made of CRCA STEEL of 1mm thickness with pure epoxy powder coating of 50-70 microns.</p> <p><b>COVER PANELS:</b> All side cover panels and back panels, filler panels should be made from CRCA STEEL panels of 1.0 mm thickness with pure epoxy powder coating of 50-70 microns.</p>				

2.08

REAGENT SHELVES:

Depending upon the layout it should be complete modular design consisting of 3 stage horizontal storage shelves made of minimum 1 mm thick CRCA STEEL with pure epoxy powder coating and having cutouts for electrical switches and sockets. Cutout for 3 module plate to be provided. All the members are knock down and can be restructured. The Reagent Racks vertical pillars should be made from CRCA STEEL of 1.6 mm thickness with pure epoxy powder coating with MS brackets of 2 mm thickness. There should be provision of installation of LED tubelight below the horizontal shelves for sufficient illumination on the working space.

UNDER-BENCH

STORAGE CABINETS:

Welded cabinet body should be of flush face construction with intersection of vertical and horizontal members like LH and RH side panel along with front horizontal channel, back panel and bottom panel. It should have the provision for relocation anywhere easily as it should be an independent unit. Cabinet should be of square non-sharp edge construction. Doors should be assembled with SS-304 hinge assembly. Removable back panel should be provided to easily access the service lines running behind the cabinet benches. Intermediate horizontal channels should be provided between door and drawer. Shelf should be eight bend panel with 20mm thickness. Drawer tray – If needed-should be of single piece construction. Drawer should be well supported on LH and RH ball slide suspension system. Steel door and drawer front should be of double wall construction with sound dampening material filled inside. Doors should be easily removable, and hinges should

	<p>be easily replaceable. The under-storage units should be ergonomically distributed at an alternative interval with leg space of same length as that of the under-storage unit.</p>				
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2.09

Dimensions: The dimensions of the cabinets should be as per plan, Depth = 510mm. Configuration: The configurations should be , comprising of two shutters with two vertical x2 horizontal shelves under each sink unit of 750 mm width and - one shutter 375 mm wide -two horizontal shelves under each work top of 750 mm width- while remaining 375 mm under each worktop to be empty for maintenance space MOC: The entire material construction for the storage units should be CRCA Steel : IS 513 (1994). Thickness: LH/RH side panels, shutter front, Bottom panel, Top front, Drawer separator, shelf, Alignment channel should be of 1.2mm thk. Removable Back panel, Shutter cover, Fr. Rack strip, Top cover panel should be of 1mm thick. FINISH: The finish of the welded cabinets should be powder coated pure epoxy of thickness 50- 70 microns. Handles should be Anodized Aluminium Recessed-Type, CTC: 160.0 mm. LOCK: Units should have a locking facility with 180° cam lock mechanism. HINGES: Soft-closing type Hinges. Shutter should be of twin-type construction with sound dampening effect using profeel. Shutter cover should be equipped with Bump on for sound dampening. Ball Slide : for drawer units should be 400mm length.

SERVICE FITTINGS AND ACCESSORIES: The service fittings (Sink, Faucet, Valve, Light fittings, Tube Light, Socket, Switch, drain board etc.) should be laboratory grade, and water faucets and valve bodies should be cast red brass alloy or bronze forgings or PTMT, all fittings should be powder plated unless specified otherwise. Fittings should be identified with service indexes in the color coding as per DIN 12920.

2.1

**ELECTRICAL TRUNKING:**

The electrical trunking used for housing electrical switches and sockets, its top panel, bottom panel of the trunking should be made from 1.0 mm thick CRCA STEEL panel. It should be available in both, single sided and double-sided configurations. It should be made from CRCA STEEL with pure epoxy powder coating. The front surface that houses the electrical points should have a slope. The electric trunking unit should consist of Three Modular 16/6A switch socket MCB unit

**LABORATORY SINK AND ACCESSORIES:**

The sinks should be polypropylene molded construction made up of 5 mm thick high density and elastic poly propylene with good resistance to organic solvents. Bowl size should be 560 L x 350 W x 255 D mm. Faucet should be 3-way type. The worktop should be 19mm (+/- 2mm)thick Jet-Black Granite worktop. The exposed edges of the worktop should be chamfered and smoothed. The bottom of the worktop should be polished and there should be a V-groove throughout the length of the exposed edges to protect the cabinets from meeting 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. [NOTE : Supply and installation of laboratory furniture with necessary placement of sink, Laboratory faucet, valve etc. with complete pipeline for inlet and outlet and electrical Switch, Socket, light fittings etc with complete internal electrical wiring as per standard wherever required will be within the scope of theBidder/Agency. Source of Water inlet and waste outlet and Electricity Source will be

	provided within the room by buyer.]				
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2.11	<p>SINK UNIT : Providing and Placing in position Sink Unit. Welded cabinet body shall be of flush face construction with intersection of vertical and horizontal members along with front horizontal channel, back panel and bottom panel. It shall be relocated anywhere easily as it should be an independent unit. Cabinet shall be of square non-sharp edge construction. Doors shall be assembled with soft closing hinge assembly. Door front shall be of double wall construction with sound dampening material filled inside. Doors shall be easily removable and hinges shall be easily replaceable. Thickness of side panels, shutter front, Bottom panel, Top front, should be of 1.2mm and for Shutter cover, Front Rack strip, Top cover panel shall be of 1 mm. Powder coating shall be pure epoxy with thickness of 50-70 microns. Anodized Aluminum Recessed-Type handles shall be provided. Providing and fixing PP Drop-In Sink with Anti-Siphon Bottle Trap and Flexible Serrated Connector to connect sink to the waste line, length 1metre. and 38mm Dia. Polypropylene Molded Sinks shall be made up of 5 mm thick high density and elastic poly propylene with good resistance to organic solvents. Polypropylene Sinks (Drop-in) of overall size 560 L x 350 W x 255 D(mm), (Black color). Classic timeless appearance in matt finish, non rusting and easy to maintain with bottle trap. Providing and fixing 3-way outlet Water Faucet on each Sink Unit. The Faucet shall have 3 swan neck type water faucet made up of Brass with epoxy powder coating or PTMT . It should be PH and rust resistant, autoclavable and leak proof with at least 2 years of comprehensive guarantee. The switch valve cast to be made of ceramic that can avoid acid wear. The outlet produced in PVC, has detachable hose nozzles, alloy pressure, changeable high-pressure outlet constructed or normal clean outlet control of water flow faucet immediately</p>	6	SETS	0.00
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2.12	Demonstration Table with 2 base cabinet,(1 drawer & 2 shutters 2 no) .Table top:18 +/- 1 mm thick well-polished Jet Black Granite with half round nosing, acid-resistant, alkali-resistant .Material of Construction for Work Bench: 18G thick,CRC Sheet. Interior & Exterior will be provided with powder-coated finish. Under Bench Cupboards will be provided with Top Drawer and Bottom two Shutter with one Horizontal Partition. All necessary hardware fitting like Heavy Duty Drawer Channels for smooth rolling to be provided .All necessary hardware fitting like Heavy Duty Drawer Channels for smooth rolling to be provided,Table Dimension-2100mm W*750 mm D*850 mm H, Storage Dimension-600 mm W* 520 mm D	2	SET		0.00
2.13	Glass Shutter Full Height cabinet (CRCA steel ) :Made of epoxy powder coated 18-20 gauge sheet,Dimension-1200 mm W x 500 mm D x 1800 mm H Dimension-1200 mm W x 500 mm D x 1800 mm H	20	SET		0.00
2.14	Glass Shutter Full Height cabinet (CRCA steel ) :Made of epoxy powder coated 18-20 gauge sheet,Dimension-1500 mm W x 500 mm D x 1800 mm	4	SET		0.00
2.15	Glass Shutter under counter cabinet (CRCA steel ) with granite top :				
2.16	Made of epoxy powder coated 18-20 gauge sheet, Dimension-1200mm W x 500 mm D x 850 mm H	20	SET		0.00
2.17	PEG BOARD- Dimension-550x400mm Material-Polypropylene	16	SET		0.00
2.18	ALUMINIUM PARTITION- Providing and fixing full height single skin aluminium partition with 4mm thick float glass and 10mm thick prelaminated particle board combination. Fixing	300	Sq MT		0.00

	with required hardware and rubber gasket all complete.				
2.19	EYE WASH- Material - Polypropylene Details - Eyewash stations target just the eyes and therefore have a lower flow requirement. ANSI Z358.1 recommends a flow of 0.4 gpm also at 30 psi.				
2.2	<p>Supply and Installation of Emergency Eye Wash with double spray-type outlet</p> <p>heads to deliver 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.</p> <p>WATER FITTINGS : Internal Water distribution line for the laboratories as per the BOQ . Providing and fixing of internal water connection to all the sink units with UPVC piping system.UPVC Pipe of Dia - 25 mm for Water Inlet and UPVC Pipe of Dia - 75 mm for Water Outlet.</p>	3	Set		<b>0.00</b>