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केन्द्रीय विनिर्माणकारी प्रौद्योगिकी संस्थान  
**CENTRAL MANUFACTURING TECHNOLOGY INSTITUTE**  
Tumkur Road, Bangalore - 560 022

**Two Bid e-Tender**  
**for**  
**“Civil Renovation works at pump lab and GF canteen north block**  
**for Aerospace testing lab expansion including internal**  
**electrification works (Civil & Electrical work)”**  
**Part A- Technical Bid**  
**Part B- Price Bid**

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केन्द्रीय विनिर्माणकारी प्रौद्योगिकी संस्थान, तुमकुर रोड़, बेंगलूरु-560022  
**CENTRAL MANUFACTURING TECHNOLOGY INSTITUTE**  
Tumkur Road, Bangalore - 560 022

Telephone : 080 22188247 / 71 / 262  
Date: 11.02.2025

**E-Tender Notice No. CMTI /ESD/06/2024-25**

1. Item –rate Tenders are invited through e-tendering for the following Civil & Electrical Work(Composite works) in two bid system:

Sl. No.	Description	Details
i	Title of work	<b>Civil Renovation works at pump lab and GF canteen north block for Aerospace testing lab expansion including internal electrification works (Civil &amp; Electrical work)</b>
ii	Estimated cost	<b>Rs.56,07,590 /-</b>
iii	Period of completion in months reckoned from the 15 <sup>th</sup> day of date of issue of work order.	<b>4 Months</b>
iv	Earnest Money Deposit	<b>Rs 1,12,152/-</b>
v	Tender processing Fee ( Non refundable )	<b>Rs. 5900/- incl GST</b>
vi	Period during which the tender documents can be downloaded	<b>From : 11-02-2025 - 10:00 hrs To : 20-02-2025 - 13:00 hrs</b>
vii	Last date and time for uploading of tenders	<b>Upto 20-02-2025 - 14.00 hrs</b>
viii	Due date and time of opening of a) technical bids.	<b>20-02-2025 at 14:30 hrs</b>
	b) Price bid	will be intimated later after technical eligibility evaluation.
ix	Performance Guarantee	The successful contractor shall deposit before commencement of work, an amount equal to <b>5%</b> of the tendered value of work as performance guarantee in the form of <b>Demand draft/ Bank guarantee/ FDR/Online payment.</b>
x	Security Deposit	A sum @ 5% of gross amount of bill shall be deducted from each running bill, till the sum along with the sum already deposited as Earnest Money, amounts to security deposit @ 5% of the tendered amount of the work

xi	Tender documents	Can be down loaded and to be submitted thru the website <a href="http://www.tenderwizard.com/CMTI">www.tenderwizard.com/CMTI</a> as per date mentioned above
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Intending bidders should submit their proposals on or before the time and date specified in the Notice Inviting Tender to the e-tendering portal mentioned below

The proposal shall be opened at Central Manufacturing Technology Institute, Bangalore on the date and time mentioned above in the presence of the bidders / their representatives if they wish to attend the same.

The tendering process is online and tender details are available in the website [www.tenderwizard.com/CMTI](http://www.tenderwizard.com/CMTI). All interested bidders are requested to visit this tendering portal and submit their bids online. The details of tender are also available in [www.cmti-india.net](http://www.cmti-india.net) & [www.eprocure.gov.in](http://www.eprocure.gov.in)

**If any of the dates mentioned above happens to be a holiday, the actual dates for the same will be the next working day.** No separate intimation in this regard will be issued.

The bidding authority/ Director, CMTI reserves the right to modify /cancel any or all proposals without assigning any reasons. CMTI will not be responsible for any errors like missing of schedule data while downloading by the bidder/non receipt of document / delay if any.

Further details can be had from

- 1) Executive Engineer / Group Head  
Engineering Services, CMTI, Bangalore  
aruncj@cmti.res.in/ 080-22188262/271

Sd/-

Group Head and Executive Engineer  
(Engineering Services)

## 2. Eligibility Criteria and General Guidelines

### 1. Eligibility requirement for contractors / firms:

Sl. No.	Eligibility Criteria	Documentary proof for eligibility
A	<p>Appropriate CPWD class and above accredited electrical contractors or its equivalent who have satisfactorily completed the similar works as mentioned below during the last Seven years in any Govt. department such as Central or state PWD, MES, ISRO, DRDO, Central/ State Public Sector Undertakings, Central /State autonomous institutes.</p> <p><u>Civil Part</u></p> <p>1) Three similar works each costing not less than 40% of the estimated cost of <b>Rs. 39,29,797 /- i.e Rs.15,71,919/-or</b></p> <p>2) Two similar works each costing not less than 60% of the estimated cost of <b>Rs. 39,29,797/- i.e Rs.23,57,878/- or</b></p> <p>3) One similar work costing not less than 80% of the estimated cost of <b>Rs. 39,29,797 /- i.e Rs. 31,43,838/-</b></p> <p><u>Electrical part</u></p> <p><b>i.</b> Three similar works each costing not less than 40% of the estimated cost i.e <b>Rs.16,77,790/- ie Rs. 6,71,116/- or</b></p> <p><b>ii.</b> Two similar works each costing not less than 60% of the estimated cost i.e <b>Rs.16,77,790/- ie Rs. 10,06,674/- or</b></p> <p><b>iii.</b> One similar work costing not less than 80% of the estimated cost of <b>Rs.16,77,790/- ie Rs. 13,42,232/-</b></p>	<p>Certified copy of work orders and completion certificates issued by the authority concerned to establish work experience</p>
	<p>i. Similar work shall mean experience in executing General Civil works including Aluminium fabrication works, Structural steel fabrication, and Electrical Works including LT side works of comparable nature.</p> <p>ii. Contractors who are associating any specialized agency for this</p>	

	<p>works has to get the agency approved by CMTI</p> <p>iii. In case of Contractors who are associating specialized agency having Partition works/Electrical/Compressed air line background, the capability of specialized agency also will be evaluated as per the eligibility criteria above and if required physical inspection of works completed by the Contractor and the agency will be evaluated by CMTI. The Major/ Lead contractor will be responsible for timely completion of the project. In this case the Civil Contractor will be the major contractor</p> <p>iv. The bidder has to upload the details of specialized agency if being hired for any specialized works along with the tender.</p> <p>v. The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum, calculated from the date of completion to last date of closing of tender.</p>
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<b>B</b>	<p><b>Copies of following documents to be scanned and uploaded along with technical bid:</b></p> <ol style="list-style-type: none"> <li>1. Work orders issued by the authority concerned to establish work on hand.</li> <li><b>2. Completion certificates to establish work experience.</b></li> <li><b>3. Documentary proof for having executed the work of similar nature and comparable magnitude as per the eligibility criteria.</b></li> <li>4. Registration certificate of CPWD / KPWD/ any other recognized public sector organization/ Govt. R&amp;D organization.</li> <li>5. PAN Card details.</li> <li>6. GST registration.</li> <li>7. Earnest Money deposit.</li> <li><b>8. EMD exemption is not applicable to MSME/NISC/ MSE's registered vendors as this is under works category. They should submit EMD along with submission of tender as prescribed in the tender, failing which their bid will be rejected</b></li> <li>9. Audited financial statement for last three years</li> <li><b>10. Solvency certificate certified by banker for minimum value of 50 % of estimated value having validity of 1 year on date of closing of tender.</b></li> <li>11. Additional Documents, if any.</li> <li><b>12. Signed copy of the tender document as acceptance of all the condition of the tender.</b></li> <li><b>13. Signed copy of Integrity pact agreement attached with tender</b></li> </ol>
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2. The tendering process is online at URL address “**www.tenderwizard.com/CMTI**”. Interested tenderers may go through the tender available in the website.
3. Tenderers are advised to register themselves in the above portal, with Digital signature key. Those who have already registered can participate in the tender by logging into the portal.
4. Downloading tender documents from “**www.tenderwizard.com/CMTI**” alone will not make a tenderer eligible for participation in the bidding process. The documents furnished by the tenderers will be subjected to verification subsequently by the Department. If found not meeting the requirements, such offers will be rejected.
5. The Price bid format (Schedule of Quantities) shall be downloaded from the **Bid documents tab**.
6. On the due date of online opening, the bids of those tenders who have furnished valid **EMD** only will be opened. On opening of technical bid, further detailed scrutiny / evaluation will be carried out. During the evaluation of technical bids, the documents furnished by the tenderers will be scrutinized in detail. **Any tender, found as not fulfilling the eligibility criteria will be rejected at this stage and such offers will not be considered for further processing. All the detailed asked thru this tender to establish the capability & eligibility of bidder to participate in this tender should be uploaded along with the technical bid of e-tender. Only filled schedule of Quantities details should be in price bid part.**
7. The tender accepting authority, Director reserves the option to give preferences to the offers in accordance with the policies of the Government from time to time.
8. **All interested vendors are requested to visit the site prior to submission of quotes.** The vendor should get acquainted with themselves the conditions under which the work need to be executed and no claims against site familiarization will be entertained.
9. Tenders should be accompanied with **Earnest Money Deposit** for the value specified in Para1 above, in the form of **Demand Draft / BG/could be deposited through e-payment**. The scanned copy of the same to be uploaded while submitting the tender online.

**NOTE: The original EMD shall reach ‘Group Head (Engineering Services ), CMTI’ on or before the date and time of opening as stipulated in Para 1 (vii) above. The tender closing date will be considered for all purpose related for calculating eligibility of bidders.**

10. The Price bid format (Schedule of Quantities) shall be downloaded from the **Bid documents tab**. The rates are to be quoted in specified column of bid sheet and the same shall be uploaded as Price bid before due date and time as

mentioned in Para 1 above. The rate should include all expenses to meet the work complete to the full extent, subjected to the satisfaction of CMTI.

11. The tender submission should be made **only through online mode** as described above. No other mode of submission is acceptable. **Filenames** of any downloaded excel files **shall not be changed** while uploading.
12. Tenders will be opened online on the stipulated date and time specified in Para 1 above. The offer of those tenderers who had furnished valid EMD (in original) and suitable documentary evidence as mentioned in Para 2, only will be opened.
13. The tender should be valid for **minimum period of 90 days** from the due date of uploading of tender specified in Para 1 above. If any tenderer withdraws the offer within the validity period or makes any modifications in the terms and conditions of the tender, which are not acceptable to Institute, 50% (Fifty Percent) of the Earnest Money Deposit will be forfeited. Further, the tenderer shall not be allowed to participate in the re-tendering process of the work or from participating in any of the tender at CMTI for a period decided by CMTI or both.
14. Intending tenderers may inspect the site before submitting the tenders, with the prior permission of **Group Head (Engineering Services),CMTI - Ph.080 22188271 / 262.**
15. The tender accepting authority, Director is not bound to accept the lowest or any other tender and reserves the authority to reject any or all the tenders received without assigning any reason. Any tender in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the tenderer shall be summarily rejected.
16. The tender accepting authority, Director also reserves the right to alter the scope/ or reduce quantum of work before issue of work order and the tenderer shall not have any claim what so ever on this account.
17. The tender accepting authority, Director reserves the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the quoted rates.
18. Canvassing directly or indirectly, in connection with tender is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable for rejection.
19. The Tenderer shall not be permitted to tender for works in the Institute, where his/her near relative is working. He/she shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any officers of CMTI. Any breach of this condition by the contractor would render him liable for rejection of tender or cancellation of contract.



20. Tenderers are requested to go through the **General Conditions of Contract (CMTI - GCC)** available in tender notification. Contract document consisting of draft of the Articles of Agreement, General Conditions of Contract – Schedule-A, Specifications - Schedule-B Schedule of Quantities -Schedule-C, Payment& Penalty – Schedule-E, Approved makes- Schedule-F, Letter of Transmittal Schedule-G, are attached herewith. The bidders should read the specifications and study the drawings carefully before submitting tender. They should acquaint themselves with the work and working conditions of the site and locality and no claim will be entertained on this issue.
21. **The quoted rates shall be deemed to be for the finished work (including, material and labour) to be measured at site.** The rates shall also be firm and shall not be subjected to exchange variations, labour conditions, fluctuations in freights or any conditions whatsoever. **Tenderers must include in their rates all applicable and any other tax and duty or other levy levied by the Central Government or any State Government or Local Authority, if applicable.** No claim in respect of GST, sales tax, excise duty, octroi or **other tax**, duty or levy shall be entertained by the employer.
22. Earnest Money is liable to be forfeited if the contractor selected for the work fails to sign the formal agreement or fails to start the work within seven days of order to commence the work.
23. The acceptance of the tender will rest with the Central Manufacturing Technology Institute which does not bind itself to accept the lowest tender and reserves to itself the authority to partially accept or reject any or all the tenders received without assigning any reasons. It will rest with the accepting authority to split up the whole work between the two or more contractors or accept it in parts if considered expedient.
24. Applicants are advised to keep visiting the above mentioned web-sites from time to time (till the deadline for bid submission) for any updates in respect of the tender documents, if any. Failure to do so shall not absolve the applicant of his liabilities to submit the applications complete in all respect including updates thereof, if any. **An incomplete application may be liable for rejection**
25. **No Escalation will be applicable for this Contract and prices will hold good for the entire period of completion of work.**
26. **The tenders submitted by the bidder who doesn't sign the declaration part and not accepting the integrity pact agreement will be rejected.**

Sd/-

**Group Head (Engineering Services)**

### **3. Scope of Work**

#### **Briefing about Work:**

Brick Wall and concrete demolishing works, steel dismantling works. Aluminium partition works, painting, false ceiling, flooring works, Structural steel works, water proofing, roofing works, power cable distribution, electrical fittings UPS and earthing works etc

#### **Major Scope of works are**

1. Demolishing and Dismantling works- walls, floor, rft steel, concrete, floor tiles etc
2. Earth work excavation for foundation levelling
3. RCC and reinforcement steel works.
4. Rouble masonry for foundation for shed walls
5. Concrete flooring works for rear side shed area old canteen flooring, etc
6. Floor groove cutting for cable laying
7. Roof water proofing woks for LESA and pump lab
8. Toilets fittings installation - commodes, washbasin, pipes, granite partition, mirror, Plumbing, Pipe fittings etc et
9. Aluminium partition works and window works
10. False ceiling, UPVC doors, Wooden doors, filing works etc
11. PVC flooring, internal and external paintings
12. Internal cable supply distribution and laying of different sizes 15,25,35.. 300 sqmm with earthing loop wire
13. Circuit wiring with 2.5 & 4 sqmm wires
14. LED lighting fittings, and wiring for lights, fans, switch sockets etc
15. Street lights
16. UPS power distribution, Telephone line laying and Earthing works.
17. Any other work mentioned in schedule of quantities or as directed by the Engineer- in- Charge.

#### **4.DECLARATION BY THE TENDERER**

1. I / We hereby declare that I / We have gone through clearly and understood the General Conditions of Contract for all works along with the Schedules A, B, C, D, E, F, &G.
2. My / Our offer submission for the tender is after fully considering the above and also the other documents issued along with the tender.
3. I / We also confirm that the offer now submitted is totally in agreement with the General Conditions of Contract read in conjunction with the documents, drawings and specifications issued for this particular tender, except for commercial & technical deviation, if any, specifically brought out in my Techno-Commercial offer, submitted herewith.
4. I fully accept the Integrity pact of CMTI and Integrity pact agreement will be signed by me in the standard format of CMTI.

(Signature of the Bidder/Tenderer)

## **5.SCHEDULE“A “**

### **GENERAL CONDITIONS OF CONTRACT (GCC)**

#### **1. Definitions:**

In ensuring these conditions, the specifications, Schedule of quantities and Contract Agreement, the following words shall have the meanings herein except where the context otherwise requires:

EMPLOYER	:	shall include its successors and assigns and all the persons for the time being in the management of the Institute.
ENGINEER IN CHARGE	:	The Engineer designated by employer on behalf of him for this work.
CONTRACTOR	:	shall mean and shall include his/their legal representative, assigns or successors.
SITE	:	shall mean the site of the contract works including any building and erection therein and any other land (inclusively) as aforesaid allotted by the Employer for the contractors use.
THIS CONTRACT	:	shall mean invitation to Tender, General Conditions of Contract, Letter of Acceptance, Agreement and Conditions of Contract, the Appendix, Specifications, the Schedule of Quantities attached hereto and duly signed.
NOTICE IN WRITING	:	shall mean a notice in writing typed or printed characters sent (unless delivered personally or otherwise proved to have been received) by Registered post to the last known private or business address or registered office of the addresses and shall be deemed to have been received when in the ordinary course of post it would have been deliver.
ACT OF INSOLVENCY	:	shall mean any Act of Insolvency defined by the Presidency Towns Insolvency Act, or the Provincial Insolvency Act or any act amending such original.

THIS WORKS : shall mean the construction/ modification of building/ infrastructure for the employer on its plot or plots.

## **2. SCOPE OF WORK**

The contractor shall carry out and complete the said work in every respect in accordance with this contract and with the directions of and to the satisfaction of the employer. The employer from time to time issue further drawings and or written instructions, details, directions and explanations which are hereafter collectively referred to as employers in regard to:

- a) The variation or modification of the design, quality or quantity of works, or the addition or omission or substitution of any work. The detailed scope of work is described in chapter 3 of this tender.
- b) Any discrepancy in the drawings or between the schedule of quantities and or drawings and or specifications.
- c) The removal and/or re-execution of any works executed by the contractor.
- d) The removal from the site of any materials brought thereon by the contractor and the substitution of any other material therefore.
- e) The dismissal from the works of any persons by employer thereupon.
- f) The opening up for inspection of any work covered up.
- g) The amending and making good of any defects under Clause -17.

The contractor shall forthwith comply with and duly execute any work comprised in such employers instructions provided always that verbal instructions, directions and explanations given to the contractor or his representatives upon the works by the employer shall involving a variation, be confirmed in writing by the contractor to the employer and the employer within seven days if not dissented from writing within further seven days by the employer, such shall be deemed to be employers instructions within the scope of the contract.

## **3. EXTRA WORK TO BE APPROVED BY THE EMPLOYER:**

Notwithstanding anything herein contained, the contractor or their representative shall not, without the prior concurrence in writing of the employer, issue any instructions, verbal or in writing for extra work. The contractor shall submit to employer a statement of such extra work giving quantities and rates duly supported by an analysis of such rates, vouchers etc., The employer shall not be liable for payment for such extra work until such work is sanctioned by him. Payments for such extra work shall be made as per clause -14 of these conditions.

## **5. AGREEMENT :**

The successful contractor shall be bound to implement the contract by signing agreement in accordance with draft agreement provided in Rs.100 stamp paper. Contractor to sign the Tender Contract Document before commencement of work.

A certified copy of the contract shall remain in the custody of the employer and shall be produced by them at their officer as and when required by the contractor. The contractor on signing hereof shall be furnished by the employer free of cost with a certified copy of the agreement, one copy of the specifications, two copies of the said drawings and two copies of all further drawings issued during the progress of the works. Any further copies of such drawings required by the contractor shall be paid for by him. The contractor shall keep one copy of all the drawings on the works and the employer, or their representative shall at all reasonable times have access to the same. Before the issue of final certificate to the contractor, he shall forthwith return to the employer all drawings and specifications.

## **5. CONTRACTOR TO PROVIDE EVERYTHING NECESSARY:**

- a) The contractor shall supply, fix and maintain at his cost during the execution of any works, all the necessary centering, scaffolding, staging, planking, timbering, strutting, shoring, pumping, fencing, hoarding, watching and lighting up nights as well as by day, required not only for the proper execution and portion of the said works, but also for the protection of the public and the safety of any adjacent road, buildings, street, cellars, vaults, pavements, walls, houses and all other erections, matters or things. The contractor shall take down and remove any or all such centering, scaffolding, staging, planking, timbering, strutting, shoring etc., as occasion shall require or when ordered to do so and shall fully reinstate and made good all matters and things disturbed during the execution of the works, to the satisfaction of the employer.
- b) The contractor shall provide everything necessary for the proper execution of the works according to the intent and meaning of the drawings, schedule of quantities and specifications taken together, whether the same may or may not be particularly shown or described therein, provided that the same can reasonably be inferred there from and if the contractor finds any discrepancy in the drawings or between the drawings, schedule of quantities and specifications he shall immediately and in writing refer the same to the employer who shall decide which is to be followed. Figure dimensions shall be followed in preference to scale.

## **6. CONTRACTOR TO CONFORM TO LOCAL REGULATIONS:**

The contractor shall conform to the provisions of any Act of the legislature relating to the works and to the regulations and bye-laws of any authority and of any water, lighting and other companies and or authorities with whose systems structure is proposed to be connected and shall before making any variations from the

drawings or specifications that may be necessitated by so conforming give to the employer written notice, specifying the variations proposed to be made and the reasons for its, and apply for instructions thereon. In case the contractor shall not, within ten days, receive such instruction, he shall proceed with the work conforming to the provisions, regulation, or Bye-laws in question and any variation so necessitated shall be dealt with under Clause No.14.

The contractor shall bring to the attention of the employer all notices required by the said Act, Regulations, or Bye-laws to be given to any authority and pay to such authority, or to any public office all fee that may be properly chargeable in respect of the works, and lodge the receipts with the employer. The contractor shall indemnify the employer against all the claims in respect of patent rights and shall himself pay all royalties, license fees, damages, costs and charges of all and every sort that may be legally incurred in respect thereof.

**7. CONTRACTOR RESPONSIBLE FOR SETTING OUT WORKS AND FOR RECTIFYING BAD WORKS:**

The contractor shall set out the works and shall be responsible for the true and perfect setting of the same and for the correctness of the positions, levels, dimensions and alignment of all parts thereof. If at any time any error in this respect shall appear during the progress of the works, the contractor shall at his own expense rectify such error to the satisfaction of the employer.

**8. MATERIALS AND WORKMANSHIP TO CONFORM TO DESCRIPTION:**

All materials and workmanship shall be of the respective kinds described in the schedule of quantities and or specifications and in accordance with the employers instructions and the contractor shall upon the request of the employer furnish them with all invoices, accounts, receipts and other vouchers, accounts to prove that the materials comply therewith. The contractors shall at his own cost arrange for and or carryout any test of any materials which the employer may require.

**9. CONTRACTORS SUPERINTENDENCE:**

The contractor shall give all necessary personal superintendence during the execution of the works, and as along thereafter as the employer may consider necessary until the expiration of the "Defects Liability Period" stated in Schedule ' E '. The contractor shall also during the whole time; the works are in progress, employ a competent and qualified representative who shall be constantly in attendance at the works, while the men are at work. Any directions, explanations, instructions or notices given by the employer to such representative shall be held to be given to the contractor.

If the Head Quarters of the successful tenderer are elsewhere than in Bangalore, then he should already have a duly registered office in Bangalore from the

commencement of the work until the building is occupied by the employer and is a mandatory requirement for technical eligibility. Such office shall be authorised to act on behalf of the successful tenderer to accept service of notices of contract and to agree to extras, omissions and varied items of work and rates for the same. Such office shall maintain his staff and qualified engineer approved by the employers and such other office personnel as may be required for the efficient execution of works. Any notice under the contract shall be deemed to have been served on the successful tenderer if served upon such agent or sent by registered letter to his address in Bangalore. Such office shall not be changed and shall not leave during the duration of the contract unless the consent of the employer shall have been previously obtained. If the employer shall require the successful tenderer to carryout any rectifications under the terms of the contract after the building is completed, the successful tenderer shall have the same or another duly authorised agent in Bangalore while such rectifications are being carried out.

#### **10. ENGINEER- IN -CHARGE:**

The term 'Engineer-in -Charge' shall mean the person or persons appointed and paid by the employer and acting under the orders of the employer to inspect the works in the absence of the employer. The contractor shall afford the Engineer-in – Charge every facility and assistance for inspecting the works and materials and for checking the measurements and materials. Engineer-in –Charge shall have power to set out works or to revoke, alter, enlarge or relax any requirements of the contract, or to sanction any work, additions, alterations, deviations or omissions, or any extra work whatever except in so far as such authority may be specially conferred by a written order of the employer.

If any work or materials is not approved by the Engineer-in -Charge, such work shall be suspended for the use of such materials shall be discontinued, until the decision of the employer is obtained. The work will from time to time be examined by the employer, Engineer-in –Charge or the employers representatives, but such examination shall not in any way exonerate the contractor from the obligation to remedy any defects which may be found to exist at any stage of the works or after the same is completed.

#### **11. ASSIGNMENT AND SUBLETTING:**

The whole of the works included in the contract, shall be executed by the contractor and the contractor shall not directly or indirectly transfer, assign or sublet the contract or any part share thereof or interest therein without the written consent of the employer, and no undertaking shall relieve the contractor from the full and entire responsibility of the contractor or from active superintendence of the works during their progress.



## **12. VARIATIONS NOT TO VITIATE THE CONTRACT:**

No alteration, omission or variation shall vitiate this contract but in case the employer think proper at any time during the progress of the works to make any alteration, or additions to or omissions from the works or any alteration in the kind or quality of the materials to be used therein and shall give notice thereof in writing under their hand to the contractor, the contractor shall alter, add to or omit from the works, as the case may require, in accordance with such notice, but the contractor shall not do any work extra or make any alterations or additions or to omit from the works or any deviations from any of the provisions of the contract, stipulations, specification of contract drawings without the previous consent in writing of the employer and the value of such extras, alterations, additions or omissions shall in all cases be determined by the employer with the prior approval in writing of the employer in accordance with the provisions of clause 14 hereof and the same shall be added to or deducted from the contract amount accordingly.

## **13.SUFFICIENCY OF SCHEDULE OF QUANTITIES:**

The contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the prices stated in the schedule of quantities and or the schedule of rates and prices shall cover all his obligations under the contract, and all matters and things necessary for the proper completion of the works.

## **14. PRICES FOR EXTRA WORK:**

Should it be found after the completion of the works from measurements taken (in accordance with the previous paragraph) that any of the quantities or amounts or works thus ascertained are less or greater than the quantities or amounts specified for the works in the priced schedule of quantities and / or tender or that any variation is made, the valuation of such quantities, amounts or variations, unless previously or otherwise agreed upon, shall be made in accordance with the following rules:

- a) The net rates or prices in the original tender shall determine the valuation of the extra works, where such extra work is of similar character and executed under similar conditions as the work priced therein.
- b) The net prices of the original tender shall determine the value of items omitted provided if omissions vary the conditions under which any remaining items of the works are carried out the prices for the same shall be valued under sub-clause (c) hereof.
- c) Where the extra works are not of similar character and / or executed under similar conditions as aforesaid or where the omissions vary the conditions under which any remaining items of works are carried out or if the amount of any omissions or additions relative to the amount of the whole of the contract works or to any part

thereof shall be such that in the opinion of the employer the net rate or price contained in the priced schedule of quantities or Tender for any item of the works involved loss or expense beyond that reasonably contemplated by the contractor is by reason of such omissions or additions rendered unreasonable or inapplicable, the employer shall fix such other rate or price as in the circumstances they shall think reasonable and proper, with the prior approval in writing of the employer. The payment will be made on

a) At actual quantities and rates worked out by the Engineer in charge, on actual cost of materials and labour with allowance of 15% as overhead and contractor's profit if it's not a scheduled item in Delhi Schedule of Rates.

or

b) At actual quantities and DSR rates+ Cost index+ tender percentage(+/-) for items in Delhi schedule of rates.

The measurement and valuation in respect of the contract shall be completed within the "period of final measurements" stated in the Schedule 'E'.

**15. NOTICE TO BE GIVEN BEFORE WORK IS COVERED UP:**

The contractor shall give not less than seven (7) days' notice in writing to the employer before covering up or otherwise placing beyond the reach of measurement any works in order that the same may be measured and correct dimensions thereof taken and if any work shall be covered up or placed beyond the reach of measurement without such notice having been given or employer's consent being obtained, the same shall be uncovered at the contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

**16. RETURN OR SURPLUS MATERIALS:**

Notwithstanding anything contained to the contrary in any of the clauses of this contract, where any materials for the execution of the contract, are procured under the assistance of the Employer, by purchase made under orders or permits or licenses issued or arranged by the Employer, the contractor shall hold the said materials safely and shall not dispose them off without the prior permission of the Employer. The contractor shall return, if required by the Employer, all surplus or serviceable materials that may be left with him after completion of the contract or at its termination for any reason whatsoever on being paid or credited such price as shall be determined by the employer. The price allowed to the contractor shall, however, not exceed the price at which the materials were acquired. The decision so taken shall be final and conclusive. In the event of a breach of these conditions, the contractor in addition to subjecting himself open to action for contravention of the items of the licenses or permits and / or for criminal breach of trust, be liable to the employer for moneys, advantages or profits resulting from such breach.

**17. REMOVAL OF IMPROPER WORK:**

The employer shall during the progress of the works, have power to order in writing from time to time removal from the works within such reasonable time or times as may be specified in the order, of any materials which in the opinion of the employer are not in accordance with specifications or instructions and the contractors shall forthwith carryout such order at his own cost. In case of default on the part of the contractor to carry out such order, the employer shall have the power to employ and pay other persons to carry out the same, and all expenses consequent or incidental thereto as certified by the employer shall be borne by the contractor, or may be deducted by the employer from any moneys due or that may become due to the contractor.

**18. DEFECTS LIABILITY PERIOD:**

Any defect, shrinkage, settlement or other faults which may appear within the "Defects Liability Period" stated in the Schedule ' E ' after the virtual completion of the work, arising in the opinion of the employer from materials or workmanship not in accordance with the contract, shall upon the directions in writing of the employer, and within such reasonable times as shall be specified therein, be amended and made good by the contractor, at his own cost and in case of default, the employer may employ and pay other persons to amend and made good such defects, shrinkage, settlements or other faults, and all damages, loss and expenses consequent thereon or incidental thereto shall be made good and borne by the contractor and such damage, loss and expenses shall be recoverable from him by the employer or may be deducted by the employer from any moneys due or that may become due to the contractor.

**19. COMPLETION CERTIFICATE:**

The works shall not be considered as complete until the employer have certified in writing that they have been virtually completed and the defects liability period shall commence from the date of such certificate.

**20. OTHER CONTRACTORS ENGAGED BY EMPLOYER:**

The employer reserves the right to use the premises and any portion of the site for the execution of any work not included in this contract which he may desire to have carried out by other persons, and the contractor is to allow all reasonable facilities for the execution of such work but is not required to provide any plant or materials for the execution of such work, except by special arrangement with the employer, such work shall be carried out in such manner as not to impede the progress of the works included in the contract.

The successful tenderer must co-operate and co-ordinate his work with the work of all other contractors appointed by the employer so that the work shall proceed with the least possible delay and to the satisfaction of the employer.

The contractor's co-ordination with other contractors appointed by the employer is essential to maintain smooth progress of the work and any delays which in the opinion of the employer is due to non-co-ordination and inefficient management of the contractor will not be entertained for any extension of time.

## **21. LIABILITY FOR ACCIDENTS AND DAMAGE AND INSURANCE:**

- i) The contractor shall, during the execution of the work, properly cover up and protect any part of the work liable to damage by exposure to the weather, and shall take every reasonable precaution against damage to the work from any cause.
- ii) All contractors' equipment shall be at the sole risk of the contractor.
- iii) The contractor will insure all his personnel employed for the execution of the work, against any personal injury may be sustained by them as a result of the execution of the works and present satisfactory evidence, that such insurance is in force. The Contractor alone will be responsible for the safety of the labours engaged by him, in any case of mishap/ accident. No claim against CMTI will be entertained.

The contractor shall be responsible for workman's compensation insurance and all other statutory requirement in regard to the personnel in the contractor's employment.

### **21.1 RECOVERY OF COMPENSATION PAID TO WORKMEN**

In every case which by virtue of the provisions of section 12 sub-section (i) of the workman's compensation act, 1923, Institute is obliged to pay compensation to workmen employed by the Contractor in execution of the work. Institute will recover from the Contractor the amount of the compensation so paid and without prejudice to the rights of Institute under the said act, Institute shall be at liberty to recover such amounts or any part thereof by deducting it from the security Deposit or from any sum due by the Institute to the contract whether under this contract or otherwise. Institute shall not be bound to contest any claim made against it under the said act except on the written request of the Contractor and upon his giving to Institute, full security for all costs for which Institute might become liable in Consequence of contesting such claim.

## **22. DATE OF COMMENCEMENT:**

The contractor shall be allowed admittance to the site on the 'Date of commencement' stated in the Schedule ' E ' and he shall thereupon and forthwith

begin the works and shall regularly proceed with and complete the same on or before the 'Day of Completion' stated in the Schedule ' E ' subjected to the provisions for extension of time hereinafter contained.

**23. LIQUIDATED DAMAGES FOR NON-COMPLETION:**

If the contractor fails to complete the works by the date stated in the Schedule ' E ' or within any extended time under clause 25 hereof and the employer certifies that in his opinion the same ought to have been reasonably completed, the contractor shall pay or allow the employer the sum named in the Schedule ' E ' as 'Liquidated Damages' for the period during which the said works shall so remain incomplete and the employer may deduct such damages from any moneys due to the contractor.

**24. FORCE MAJEURE:**

The right of the contractor to proceed with the work shall not be terminated because of any delay in the completion of the work due to unforeseen causes beyond the control and without the fault or negligence of the contractor, including but not limited to acts of God, or the public enemy, restraints of the Sovereign State, fires, floods, unusually severe weather and acts of the employer.

If the contractor is wholly prevented from performance of the contract, for a period in excess of thirty (30) consecutive days because of a Force Majeure, the employer may terminate this contract by thirty (30) days written notice delivered to the contractor and if the period of the Force Majeure exceeds ninety (90) consecutive days, the contractor may terminate this contract by thirty (30) days written notice to the employer. In the event, this contract is so terminated, the contractor shall be paid all costs actually incurred (which costs shall not include any other expenses of the contractor such as loss or profits, salaries of contractor's employees, expenses of contractor towards maintenance of his establishment etc..) for the work executed up to the date of termination. Failure to agree on an equitable adjustment shall be deemed to be dispute.

**25. DELAY AND EXTENSION OF TIME:**

If in the opinion of the employer the works to be delayed:

- a) by force majeure; or
- b) by reason of any exceptionally inclement weather of;
- c) by reason of proceedings taken or threatened by or dispute with adjoining owners or public authorities arising otherwise than through the contractor's own default.
- d) by the works or unavoidable delays of other contractors or tradesmen engaged or nominated by the employer and not referred to in the schedule of quantities and / specifications,

- e) by reasons of employers instructions as per Clause 2 or,
- f) by reasons of civil commotion, local combination of workmen of strike or lock out affecting any of the building traders.
- g) in consequence of the contractor not having received or in due time necessary instructions from the employer for which he shall have specifically applied in writing.

The employer may make a fair and reasonable extension of time for completion of the contract works; in case of such strike or lockout, the contractor shall as soon as may be, give written notice thereof to the employer, but the contractor shall nevertheless constantly use his endeavour to prevent delay and shall do all that may reasonably be required to the satisfaction of the employer to proceed with the work.

The contractor need to keep a hindrance register at site and enter all the hindrance he has faced and clearance got with counter signature of Engineer in Charge.

**26. FAILURE BY CONTRACTOR TO COMPLY WITH EMPLOYER'S INSTRUCTIONS:**

If the contractor after receipt of written notice from the employer requiring compliance within ten days and if he fails to comply with such further drawings and/or employers instructions, the employer may employ and pay other persons to execute any such work whatsoever they may be necessary to give effect thereto, all costs incurred in connection therewith shall be recoverable from the contractor by the employer as a debt or may be deducted by him from any moneys due or to become due to the contractor.

**27. SUSPENSION:**

If the contractor suspends the works, or in the opinion of the employer, neglects or fails to proceed with due diligence in the performance of his part of the contract or if he shall make default in respect of Clause 2 (entitled scope of contract) the employer, shall have power to give notice in writing to the contractor requiring him to proceed with the work within a reasonable period of time and such notice shall have been given, the contractor shall not be at liberty to remove from the site of the works any plant or materials belonging to him which shall have been placed thereon and the employer shall have claim upon all such plant and materials from the date of such notice. If the contractor shall fail for seven (7) days after such notice has been given to proceed with the work as therein prescribed, the employer shall have the right to proceed as provided for in clause 30 (entitled Termination).

**28. TERMINATION FOR DEFAULT:**

If the contractor fails to fulfil the terms of contract and or, where employer is satisfied that it is not in the interest of the employer to persist with the contract with the defaulting contractor, the employer is at liberty to rescind the contract where upon **Security Deposit & Performance Guarantee** amount of the contractor stands forfeited.

Further the employer is at liberty:

- a) to employ labour paid by the employer and supply the materials to carry out the work for and on behalf of the contractor and
- b) to measure up the work of the contractor and to take such part there of as shall be unexecuted out of his hand and to give to another contractor at the risk and cost of the original contractor.

**29. TERMINATION FOR CONVENIENCE:**

The employer may at any time terminate this contract for convenience upon 30 days written notice to the contractor. Upon issuance of termination notice by the employer, the contractor shall, unless the notice provides otherwise, immediately discontinue all work and the placing of all orders for commodities and shall terminate all existing employment contracts, orders and sub-contractors. If the contract is terminated for convenience, the contractor shall be compensated as if the contract had been terminated because of Force Majeure.

**30. TERMINATION:**

- i) The employer may, for any reason whatsoever at any time by notice in writing to the contractor terminate the contract.
- ii) In the event of a termination pursuant to paragraph (i) of this Article:
  - (a) The contractor shall carry out instructions of the owner in connection with such termination including the cancellation of orders and the termination of contracts which the contractor may have placed with order, and
  - (b) The employer shall pay the contractor for all materials used and work executed pursuant to the contract, but unpaid at the date of such termination together with any costs necessarily incurred by the contractor in connection with the work as a result of such termination, provided that the employer shall not be liable for any business loss or damage suffered by the contractor as a result of such termination.
- iii) The contractor shall upon receiving notice from the employer in accordance with paragraph (i) of this Article, notify the employer within a reasonable time, of the sums of materials used and work executed as mentioned in paragraph (ii) (b) of this Article. These sums and all terms and conditions of termination pursuant to this article shall be agreed in writing between the employer and the contractor.
- iv) Upon termination of the contract pursuant to this Article all obligations of the parties hereto shall cease except as to the liabilities of either party to the other for obligations accrued prior to the date of such termination.

**31. WATER AND POWER REQUIRED FOR THE WORK:**

Water and Electricity for construction will be made available at site from a delivery point which may be seen by the contractor. Piping or leads from the point, to where the contractor requires the supply shall be provided and Electric meter shall be installed by the contractor. The charges for consumption of water and electricity will be at the rates to be specified by the employer.

Water charges shall be **Rs.87/- per 1000 litres** and electricity charges based on the current BESCO Regulations.

Where the water meter is not installed, the charges for water shall be recovered on the basis of 2.50%( Two point five percent) of the total cost of work, excluding for the cost of items where cement is not used. If supply of water and electricity cannot be supplied by the employer, the contractor shall make his own arrangements for procuring water and power supply that may be required for the execution of the work. No extra payment will be made on this account. No Institute plant, materials or labour will be lent or issued to the contractor.

**32. DAMAGES THROUGH NATURAL CALAMITIES:**

No compensation for any damage caused to the works or materials by rain, floods or other natural calamities shall be paid to the contractor. The contractor shall have to make good all such damages himself and at his own cost.

**33. TESTING OF CEMENT CONCRETE AND MORTAR:**

- a) The contractor has to carryout cube testing as per IS 456 for concreting works or at such intervals as required by the employer.
- b) The mortar used in brick work may also be subjected to laboratory test by taking out samples as and when required by the employer.
- c) The arrangements for testing of test cubes and mortar shall have to be made by the contractor at his own cost and nothing extra shall be paid on this account, or alternatively the test may be arranged by the employer, the expenditure involved in doing so being paid by the contractor in cash or by deduction from his bills.

**34. CLEARANCE OF SITE:**

The contractor shall have to remove all materials from the site of work, dirt and dust from floors and woodwork and white wash or colour wash, distemper or paint splashes from doors, windows, glass panels etc., before handing over the building to



the employer. The work shall not be treated as complete in all aspects unless these requirements are fulfilled by him.

In the event of the contractor failing to do so, the employer shall have the right to get the site cleared, dust and dirt removed and doors and windows etc. cleaned of splashes etc., at the contractors risk and cost without prejudice to the right of the employer to take action to recover damages under clause 23 of the contract.

### **35. ARBITRATION:**

i) If at any time, question, dispute, or difference shall arise between the employer and the contractor under or in connection with the contract, either party shall as soon as reasonably practicable give to the other, notice in writing of the existence of such question, dispute or difference specifying its nature and the point of issue and the same shall be referred to arbitration in accordance with the provisions of the Indian Arbitration Act 1940. The award of such arbitration shall be final and binding on the parties hereto.

ii) Performance of the contract shall continue during arbitration and any subsequent proceedings.

iii) The venue of all arbitration shall be in Bangalore.

### **36. RIGHT OF TECHNICAL SCRUTINY OF FINAL BILL:**

The employer shall have a right to cause a technical examination of the works and the final bill of the contractor including all supporting vouchers, abstracts etc, to be made at the time of payment of the final bill. If as a result of this examination or otherwise, any sum is found to have been overpaid or over-certified it shall be lawful for the employer to recover such overpayment

### **37. COMPENSATION:**

(a) In any case under any clause or clauses of this contract, the contractor shall have rendered himself liable to pay compensation amounting to the whole of his **security deposit & Performance Guarantee** amount (whether paid in one sum or deducted by instalments) the employer shall have power:

i) to rescind the contract (of which rescission notice in writing to the contractor in the hand of the employer shall be conclusive evidence) and in which case, the **security deposit & Performance Guarantee** amount of the contractor shall stand forfeited and absolutely at the disposal of the employer.

ii) To employ labour paid by the employer and to supply materials to carry out the work of any part of the work, debiting the contractor with the cost of labour, supervision and the price of the materials (of the amount of which cost and price, a certificate of the employers officer shall be final and conclusive against the contractors) in all respects in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract. The

certificate of the employer as to the value of the work done shall be final and conclusive against the contractor.

iii) To measure up the work of the contractor and to take such part thereof as shall be unexecuted out of his hands and to give it to another contractor to complete, in which case any expenses which may be incurred in excess of the sum which has already been paid to the original contractor, if the whole work had been executed by him (of the amount of which excess, the certificate in writing of the employer shall be final and conclusive) shall be borne and paid by the original contractor and may be deducted from any money due to him under the contract or otherwise, or from his **security deposit** or **Performance Guarantee** amount or the proceeds of sale thereof or a sufficient part thereof.

(b) In the event of any of the above courses being adopted by the employer, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials, or entered into any engagements or made any advance on account of or with a view to the execution of work or the preference of the contract and in case the contract shall be rescinded under the provisions aforesaid, the contractor shall not be entitled to recover or be paid any sum for the any work therefore actually performed under this contract unless and until the employer will have certified in writing the performance of such work and the value payable in respect thereof, and he shall only be entitled to be paid the value so certified.

(c) In the event the employer enforces either of the powers (i), (ii) or (iii) of (a) above vested in him under the preceding clause, he may if he so desires take possession of all or any tools, plant, materials and stores, in or upon the works, or the site thereof or belonging to the contractor, or procured by him and intended to be used for the execution of the work or any part thereof, paying or allowing for the same in the account at the contract rates or in case of these not being applicable, at current market rates, to be certified by the employer whose certificates by notice in writing to the contractor, or his Engineer, foreman or other authorised agent require him to remove such tools, plants, materials or stores from the premises (within a time to be specified in such notice) and in the event of the contractor failing to comply with any such requisition, the employer may remove them at the contractors risk and expenses or sell them by auction or private sale on account of the contractor and at his risk in all respects, and the certificate of the employer as to the expenses of any such removal and the amount of the proceeds and expenses of any such sale, shall be final and conclusive against the contractor.

### **38. CERTIFICATE OF PAYMENT:**

(a) The contractor shall attend or send a qualified agent to assist the CMTI's Engineer or his subordinates in taking such measurements and calculations and to furnish all particulars and to give all assistance required by the Engineer or his subordinates. Should the contractor not attend or neglect or omit to send such

agent, then the measurements taken by the Engineer or his subordinates shall be taken to be correct measurement of the work, unless objected to within one month of their being recorded in the measurement book or books.

(b) The employer and the contractor or their agents may at the time of measurement take such notes of measurements as they may require. **Payments will be made as running account bills (RA bills) and work will be closed with final bill, there after no claim will be entertained.**

(c) All intermediate payments (RA bills) shall be regarded as payments by way of advance against the final payment only and not as payment for work actually done and completed. The final bill shall be submitted by the contractor within two months after completion of the work. The measurement of the work taken by the Engineer or his subordinates after one week's notice to each party shall be final and binding on all parties unless objected to within one month of their being recorded in the measurement books.

(d) **No advance payment will be made at any stage of this contract except for secured advance for materials supplied (Secured advance shall be 75% of the material part supplied).**

(e) Advances for materials brought to site: The contractor shall execute an indenture bond in favour of the employer in the prescribed form for each advance or intermediate payment received by him. If the contractor commits any default in the terms of the said bond and he fails to pay the bond amount, the employer shall have the power to :

i) seize and utilise the materials or any part thereof for the completion of the works.

ii) remove and sell by public auction the materials seized or any part thereof and out of the proceeds of the sale, retain all sums repayable or payable to the employer together with interest thereon at the rate prescribed by the government of India from time to time for Capital Outlays.

iii) deduct all or any part of moneys owing from contractor or out of the security deposit or any other sum or sums due to the contractor under this agreement.

(f) The contractor agrees that before final payments shall be made on the contract, they will sign and deliver to the employer, either in the measurement books or otherwise, as required a valid release and discharge from any and all claims and demands whatsoever from the employer for all matters arising out of or connected with the contract.

(g) If the weight of Aluminium, reinforcement and structural steel provided in the work differs from standard tables the following procedure shall be followed for arriving the quantity.

a. If the actual weight is more than standard weight only standard weight shall be considered for payment.

b. If the actual weight is less than standard weight but within the permissible variation only actual weight shall be considered for payment.

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## **39. SITE WORKING CONDITIONS& SAFETY**

### **1. SITE ESTABLISHMENT& PROJECT PROGRAMME CHART :**

1.1 The contractor shall provide all sheds for stores, tarpaulin and other covers for the materials. All materials likely to deteriorate in the open shall be stored under suitable cover. Space shall be allowed to the contractor for erection of sheds and storage of materials, only after getting sanction from employer.

The security of the contractor's equipment and material is his own responsibility. He will ascertain the security arrangements that are made on site by the employer and take any further precautions he may think necessary. The employer accepts no liability for loss or damage to the contractor's plant, tools, or materials, unless caused by the proven negligence of the employer staff. When the work has been taken over by the employer, responsibility is accepted for the permanent work.

The contractor shall make it a point to hand over to Security Staff at gate a list of their tools and equipment while bringing them to the site of work. While taking out such tools and equipment after the completion of the jobs, the same will be checked by the Security Staff with the list given at the time of taking them in. If such a list is not given. The burden of proof that such tools and equipment belong to the contractor will be on the contractor and without such proof such tools and plants will not be allowed to be taken out.

#### **1.2 Lavatories:**

The contractor shall provide his own lavatory and washing facilities to comply with the local and Government regulations in the space allotted by the employer.

#### **1.3 First Aid:**

The contractor may make use of the owner's qualified first-aid personnel and ambulance where such facilities are available. An agreed charge will be made for each service rendered from date of commencement of contract.

### **2.0 SUPERVISION OF WORKS:**

The contractor is required to have on site during all working hours a competent full time Engineer who will be responsible to the Employer for the conduct of the work and who has authority to receive and act on such instructions as the owner may give.

The Contractor shall depute Site Engineer & skilled workers as required for the work. He shall submit organization chart along with details of Engineers and supervisory staff. It shall be ensured that all decision making powers shall be available to the representatives of the Contractor at Bangalore itself to avoid any likely delays on this

account. The Contractor shall also furnish list of persons for specialized works to be executed for various items of work. The Contractor shall identify and deploy key persons having qualifications and experience in the similar and other major works, as per the field of their expertise.

If during the course of execution of work, the Engineer-in-Charge is of the opinion that the deployed staffs is not sufficient or not well experienced; the Contractor shall deploy more staff or better-experienced staff at site to complete the work with quality and in stipulated time limit. Project planning/quality/billing Engineer of the Contractor having experience in similar nature of work as mentioned in this tender shall always be available at the site during the actual execution of the work.

### **3.0 INSPECTION**

The work of the contractor is subject to inspection by the employer at all times.

### **4.0 EMPLOYMENT OF LABOUR**

4.1 The contractor will be expected to employ on the work only his regular skilled employees with experience of work. The permission of the Employer must be obtained before tradesmen are recruited locally for the work. This rule does not apply to unskilled labour.

4.2 All travelling expenses including provisions of all necessary transport to and from site, lodging allowances and other payments to the contractor's employees are his own responsibility.

4.3 The hours of work on the side are at the contractor's discretion but must be sufficient to enable the program of work to be maintained. However, specific permission of the employer shall be taken for working any time between dusk & dawn and holidays.

4.4 If required by the employer all contractor's employees will wear identification badges while on site.

4.5 All notices displayed on the site and any instructions issued by the employer must be strictly adhered to by the contractor's employees.

4.6 The contractor shall be responsible for hiring the space required for his labour colony at his own expense. None of his staff or workmen will be allowed to remain at site except when they are on duty.

4.7 ESI and PF w.r.t to the labours employed by the Contractor has follow the prevailing rules and regulation of government .The rate quoted should be good enough to cover all these expenses related to ESI & PF.

## **5.0 REPORTING**

The contractor must report the following information to the employer in writing any actual or potential delay in program caused by the action or inaction of the Employer and other contractors working on site.

## **6.0 COMPLETION OF WORK**

Before finally leaving site all the contractor's sheds, plants, tools and rubbish must be removed and the site left clean and tidy.

## **7.0 WORKING AND SAFETY REGULATIONS**

7.1 The contractor will observe all statutory and legal requirement by Central and State Governments applying to the work as well as any local regulations applying to the site issued by the employer or other authority.

7.2 Particular attention is drawn to the following :

- i) In case of accident, the employer will be informed in writing forthwith. The contractor will strictly follow regulations laid down by factory inspector, Government and State authorities in this regard.
- ii) Fencing all contractor's plant, platforms, excavations etc.,
- iii) Compliance with all electricity regulations.
- iv) Compliance with statutory requirements for inspection and test of all lifting appliances and auxiliary lifting gear.

7.3 Staircase, doors or gangways must not be obstructed in any way that will interfere with means of access or escape.

7.4 No excavation will be started without the permission of employer who will inform the contractor of the position of any pipes or cables know to be buried in the area. All excavations must be effectively relied off at all times, or completely boarded over and properly marked during the hours of darkness by red warning lamps, using flame proof warning lamps in non-smoking areas. During the hours of darkness, heaps of debris or material which cannot be immediately removed must be heaped in such a way as to leave adequate passage way.

7.5 The contractor will notify the employer of his intention to bring on to the site any equipment such as space heating or welding apparatus, or any container holding liquid or gaseous fuel or other substance which might create a hazard. The employer will have the right to prohibit the use of such equipment or to prescribe the conditions under which such equipment may be used.

The employer will have the right to inspect any construction plant, and to forbid its use, if in his opinion it is unsuitable or unsafe. No claim arising thereof cannot be made by the contractor.

The contractor or anyone acting on his instructions will not bring on to the site any radio-active substance or any apparatus using such substance or any x-ray apparatus until written permission and direction regarding the use of such equipment has been received from employer.

7.6 The contractor will meet all requirements and act on the instructions of the employer where it is necessary to operate a 'Permit-to-work 'system.

7.7 Where it is necessary to provide and or store petroleum products or petroleum mixtures and explosives, the contractor shall be responsible for carrying out such provision and / or storage in accordance with the rules and regulations laid down in petroleum act, 1934, Explosive Act 1948 and petroleum and Carbide of Calcium Manual published by the Chief Inspector of Explosives of India. All such storage shall have prior approval of the employer. In case any approvals are necessary from the Chief Inspector of Explosives or any statutory authorities, the contractor shall be responsible for obtaining the same.

7.8 The contractor shall have his own Fire Fighting Extinguishers and Equipment.

7.9 The contractor shall be responsible for the provision of all safety notices and safety equipment required by both the relevant legislation and such as the owner may deem necessary.

#### 7.10 SAFETY PROVISIONS/ CONTRACTOR TO BEAR THE EXPENSES IN CONNECTION WITH ACCIDENTS, IF ANY

The Contractor shall provide all necessary fencing lights required to protect the public from accident and shall be bound to bear the expenses of defence of every suit, action or other proceedings which may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and costs which may be awarded in any such actions or proceedings to any such persons or which may with the consent of the Contractor be paid to compromise any claim by any such person.

#### 7.11 General Safety guidelines

For the safety of all labour directly or indirectly employed in the work for the performance of the contractor's part of this agreement, the contractors shall, in addition to the provision of CPWD safety code and directions of the Engineer – in – charge, make all arrangements to provide facility as per the provision of Indian Standard Specifications (Codes) listed below & nothing extra shall be paid on this account.

a. IS 3696 Part I Safety Code for scaffolds & ladders

b. IS 3696 Part II Safety Code for scaffolds and ladders Part II



- c. IS 764 Safety Code for excavation work.
- d. IS 4138 Safety Code for working in compressed air.
- e. IS7293 Safety Code for working with construction machinery.
- f. IS 7969 Safety Code for storage and handling of building materials.
- g. IS 4130 Safety code for demolition of buildings.

#### **7.12 INSURANCE POLICIES:**

The Contractor shall obtain and submit to the Engineer in charge proper **Contractor All Risk Insurance Policy for an amount 1.25 times the contract amount** for this work, with Engineer-in-Charge as the first beneficiary. The insurance shall be obtained in joint names of Engineer-in-Charge and the Contractor (who shall be second beneficiary). Also, he shall indemnify the Department from any liability during the execution of the work. Further, he shall obtain and submit to the Engineer-in-Charge, a third party insurance policy for maximum Rs.10 lakh for each accident, with the Engineer-in-Charge as the first beneficiary. The insurance shall be obtained in joint names of Engineer-in-Charge and the Contractor (who shall be second beneficiary). The Contractor shall, from time to time, provide documentary evidence as regards payment of premium for all the Insurance Policies for keeping them valid till the completion of the work. The Contractor shall ensure that Insurance Policies are also taken for the workers of his Sub-Contractors / specialized agencies also. Without prejudice to any of its obligations and responsibilities specified above, the Contractor shall within 15 days from the date of letter of acceptance of the tender submit a report to the Department giving details of the Insurance Policies along with Certificate of these insurance policies being valid, along with documentary evidences as required by the Engineer-in- Charge. No work shall be commenced by the Contractor unless he obtains the Insurance Policies as mentioned above. Also, no payment shall be made to the Contractor on expiry of insurance policies unless renewed by the Contractor. Nothing extra shall be payable on this account. No claim of hindrance (or any other claim) shall be entertained from the contractor on these accounts

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

#### **8.0 ELECTRICAL SAFETY REGULATION**

8.1 In no circumstances will the contractor interfere with electrical equipment belonging to the employer.

8.2 Before the contractor connects any electrical appliances to any plug or socket belonging to the employer he will:

- i) Satisfy employer that the appliance is in good condition.
- ii) Inform the employer of the maximum current required and the voltage and phase of the appliance,
- iii) Obtain permission of the employer detailing the sockets to which the appliance may be connected.

8.3 The employer will not grant permission to plug in until he is satisfied that:

- i) The appliances are in good condition and is fitted with a suitable plug.
- ii) The appliance is fitted with a suitable cable having two earth conductors, one of which shall be an earthed metal sheath surrounding the cores.

8.4 No electric cable in use by the employer will be disturbed without prior permission of the employer. No weight of any description will be imposed on any such cable and no staging, ladder or similar equipment will rest against or be attached to it.

8.5 No work must be carried out on any live equipment. The equipment must be made safe by the employer and a 'permit to work' issued before any work is carried out.

8.6 No cable should be laid on ground surface in an unsafe condition. They should be taken above ground in such a way that they do not obstruct the movement of vehicles, cranes etc., and the work of other contractors in the area.

8.7 The employer has the right to discontinue supply, if any equipment or installation is considered unsafe. The contractor must replace or rectify the equipment installation at his own cost and satisfy the employer.

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## **6. SCHEDULE “ B ”**

### **Specifications**

**1. For Civil works as per CPWD Specifications, 2019 Vol. I & II with up to date correction slips.**

**2. For Electrical works as per CPWD General Specification for Electrical works 2013 . with up to date correction slips**

3. The work shall be carried out strictly in accordance with the attached specifications and wherever items are not covered by these specifications, in accordance with the relevant specifications laid down in ISI standards and to the entire satisfaction of the Director, Central Manufacturing Technology Institute. The wording as per specifications' in the Schedule items shall mean CPWD Specification.

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## **7. SCHEDULE " C "**

### **SCHEDULE OF QUANTITIES- Price Bid (attached separately)**

#### GENERAL NOTES:

The contractor is required to examine carefully the drawings, the form of tender, draft of Articles of Agreement, the General Conditions of Contract and the specifications before pricing : -

1. The rates quoted by the contractor in the following Schedule of quantities shall include for supplying all materials, labour, transportation, loading unloading, and scaffoldings necessary for completing the work in the best and most workmanlike manner and for maintaining the same all in accordance with the provisions of the specifications and conditions of contract, for the erection and removal of all necessary scaffolding, shed, water tanks, Site Engineer's office, latrines for use of work people etc., providing water for the work in consultation with the employer including payment of charges for the same, for all fencing required to enclose the site to prevent people trespassing and for all other purposes, as required by the employer, for carting away all debris and rubbish, for leaving the premises in a clean and most satisfactory state on completion and for working in conjunction with on all other contractors employed on the building. The rates quoted shall include for all load and lift charges encountered in the works.
2. Other agencies will be working in the building during construction and the general contractor must allow these contractors the use of scaffolding and water and render them general assistance. No addition to the completion time will be allowed on this account unless special delays caused by the other agencies can be shown. The general contractor must make good all holes in the building made by the electrical, sanitary and water supply contractors and will submit their charges to the firms responsible.
3. The quantities set out below are only approximate. All works will be paid on measurements taken during the progress of or after the completion of the work.
4. All works shall be measured net as finished and the rates quoted by the contractor shall include for all curing, waste, breakage's etc.,
5. No allowance shall be made to the contractor on account of any claim which is based on the circumstances that work may be described in the General Conditions of Contract or specifications to which apparently there is no corresponding items given in the bills of quantities.
6. The employer reserve the right to purchase any material required for the construction. The contractors will be paid only for labour and any other sundry materials required in connection with the particular item or items.

7. The contractor shall first prepare a sample piece and the same shall be got approved from the employer to their entire satisfaction. The contractor will be expected to do all the modifications to the sample for which no claim will be entertained.

8. The tentative schedule of quantities is attached as below

**PART-A Civil Works**

SI	Description	Unit	Qty
1	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. In Cement Mortar	Cum	25.34
2	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :		
2.1	Of area 3 sq. metres and below	each	30.00
2.2	Of area beyond 3 sq. metres	Each	2.00
3	Dismantling steel work manually/by mechanical means in built up sections Grill, Rolling shutters, supports, L angles, I sections, C sections without damaging and stacking at scrap yard within institute up to 200 meter as per direction of Engineer-in-charge.	Sqm	23.00
4	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.	Cum	1.50

5	Dismantling tile work/Cement work in floors, roofs and walls laid in cement mortar including stacking material within 50 metres lead(including cement mortar of 40 to 50mm thickness).		
	For thickness of tiles 10 mm to 25 mm	Sqm	210.00
6	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	Sqm	11.00
7	Repair to plaster of thickness 12mm to 20 mm in patches of area 2.5 sqm and under, including cutting the patch in proper shape, raking out joints and preparing plastering the wall surface with white cement based polymer modified self curing mortar, including disposal of rubbish, all complete as per the direction of Engineer-In-Charge.	Sqm	52.00
8	Providing and applying two or more layers of polymer based membrane waterproofing over one coat of manufacturer recommended primer and providing with fiber mesh between first and second coat to cover completely including preparing existing surface of floor / roof /walls by mechanical grinding or cleaning by wire brushing etc to remove all vegetations, loose particles, dirt, dust, oil etc expose clean sound base concrete substrate and filling cracks, fissures using manufacturer approved filler material and making surface plain/flat. Including cost of labor, material, lead & lift up to 5 floors etc all complete (Approved makes : Dr.Fix it/ Fosroc/ Bostik)	Sqm	473.00

		Sqm	64.00
9	Providing and applying two or more layers of polymer based membrane waterproofing over one coat of manufacturer recommended primer, First and second coat to cover completely without mesh including preparing existing surface of floor / roof /walls by mechanical grinding or cleaning by wire brushing etc to remove all vegetations, loose particles, dirt, dust, oil etc expose clean sound base concrete substrate and filling cracks, fissures using manufacturer approved filler material and making surface plain/flat. Including cost of labor, material, lead & lift up to 5 floors etc all complete (Approved makes : Dr.Fix it/ Fosroc/ Bostik)		
10	Dismantling G.I. pipes Over walls/ external work / Internal work including making opening in walls chipping, removing clamps nails fittings, excavation and refilling trenches after taking out the pipes, manually/ by mechanical means including stacking of pipes within 50 metres lead as per direction of Engineer-in-charge :		
10.1	15 mm to 40 mm nominal bore	Mtr	18.00
11	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge.		
11.1	All kinds of soil	Cum	22.00
12	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including getting out and disposal of excavated earth upto 50 m and lift upto 1.5 m, as directed by Engineer-in- Charge:		
12.1	All kinds of soil	Sqm	180.00

13	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :		
13.1	1:4:8 (1 Cement : 4 coarse sand (zone-III) derived from natural sources : 8 graded stone aggregate 40 mm nominal size derived from natural sources)	Cum	2.70
14	Random rubble masonry with Available hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) upto plinth level with		
14.1	Masonry work (second sort), in cement mortar 1:6 (1 cement: 6 coarse sand)	Cum	9.71
15	Centering and shuttering including strutting, propping etc. and removal of form for		
15.1	Foundations, footings, bases of columns, etc. for mass concrete	sqm	1.70
15.2	Lintels, beams, plinth beams, girders, bressumers and cantilevers	sqm	2.13
15.3	Suspended floors, roofs, landings, balconies and access platform	sqm	7.76
16	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :		
16.1	1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)	Cum	4.00



17	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.		
17.1	Thermo-Mechanically Treated bars of grade Fe-500D or more.	Kgs	350.00
18	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels,bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering,finishing and reinforcement with <b>1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).</b>	Cum	1.00
19	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.		
	Thermo-Mechanically Treated bars of grade Fe-500D or more.	Kgs	62.00
20	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :		
20.1	1:2:4 (1 cement : 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 20 mm nominal size derived from natural sources)	Cum	23.50
21	Providing and laying factory made Precast concrete solid blocks of 200 mm thickness of grade M10 made of C&D waste from approved manufacturer in foundation and plinth in:Cement mortar 1:6 (1 cement : 6 coarse sand)	CuM	1.00

22	Providing and laying factory made Precast concrete solid blocks of 200 mm thickness of grade M10 made of C&D waste from approved manufacturer in superstructure above plinth level up to floor V level		
22.1	in Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	2.86
23	Providing and laying half block masonry with factory made Precast concrete solid blocks of 100 mm thickness of grade M10 made of C&D waste from approved manufacturer in superstructure above plinth level up to floor V level:		
23.1	in Cement mortar 1:4 (1 cement : 4 coarse sand)	sqm	22.00
24	15mm cement plaster on the rough side of single wall or half brick masonry in CM 1:4 for height upto 10m from ground	SqM	66.00
25	Half brick masonry 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.		
25.1	Cement mortar 1:4 (1 cement :4 coarse sand)	Sqm	62.00
26	12 mm cement plaster of mix : 1:6 (1 cement: 6 fine sand) for heights upto 3.5 in each floor	Sqm	160.00
	Rs:333.35/Sqm		

27	Providing and fixing 1st 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	Sqm	49.00
28	Providing and laying rectified Glazed/antiskid/matt finished Ceramic floor tiles of size 300x300 mm or more (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 Coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including pointing the joints with white cement and matching pigments etc., complete	Sqm	4.30
29	Providing and laying Vitrified tiles in different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colours and shade, in skirting, riser of steps, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS: 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).		
29.1	Size of Tile 600x600 mm	Sqm	8.75
30	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.		

30.1	Size of Tile up to 600x600 mm	Sqm	13.30
31	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. Internal work - <b>Exposed on wall</b>		
31.1	25 mm nominal dia Pipes	Rmt	60.00
32	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings and 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.		
	Concealed work, including cutting chases and making good the walls etc.		
32.1	20 mm nominal dia Pipes	Rmt	30.00
33	Providing and laying in position to required level or slope rigid PVC pipe " Supreme / Finolex / Prince " make confirming to IS : 4985 for Sewer line and jointing with cement solvent cost of , cement solvent, making groove, chipping walls floor, fixing GI/PVC clamps nails etc labour charges complete as per specifications. Make: "Ashirvad, Supreme, Astral, Finolex"		

33.1	50mm OD -6Kg/Cm2	Rmt	5.70
33.2	75 mm OD - 6Kg/cm2	Rmt	13.50
33.3	110 mmOD -6Kg/cm2	Rmt	7.50
34	Supply and fixing of rigid PVC pipe fitting " Supreme / Finolex / Prince " make confirming to IS : 4985 Make: "Ashirvad, Supreme, Astral, Finolex"		
34.1	50 mm Dia Elbow	Each	12.00
34.2	50 mm Dia Tee	Each	4.00
34.3	75 mm Dia Elbow	Each	4.00
34.4	75 mm Dia Tee	Each	1.00
34.5	75 mm Dia door Elbow	Each	2.00
34.6	75 mm Nani Trap along with SS Jali	Each	3.00
34.7	110 mm Dia elbow	Each	2.00
34.8	110 mm Dia tee	Each	1.00
34.9	110 mm X 75 mm Tee	Each	1.00
34.10	100 X 75 mm Multi Floor Trap along with SS double Jali	Each	4.00
34.11	110 mm Dia door elbow	Each	2.00

35	Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement and making necessary channels for the drain etc. complete :		
35.1	For pipes 100 to 250 mm diameter	Each	2.00
36	Providing and fixing floor/wall mounted EWC in toilets with seat cover and lid, with 10 litre low level "Parryware Slimeline / Hindware sleek smart"/Vera moda flushing cistern, of any approved make 40 mm flush bend, overflow arrangement including parts of the cistern, 1 No. Angular Stop Cock : Cat. No.053, "Jaquar" with wall flange , 1 No. 12mm x 450mm PVC connecting pipe - "Kohinoor", mounting brackets etc.,. Complete including painting of fittings and brackets, cutting and making good the walls and floors wherever required :Make :Hindware, Parry ware, Veramoda Colour : Ivory/White		
36.1	E.W.C. with ISI marked white solid plastic seat and lid	Each	2.00
37	Supply and fixing 'Hindware' Flat back large Urinal 59x37.5x39cm including 32mm CP Waste coupling (Jaquar make Item code ALD-705), 32mm PVC waste pipe , suitable 15mm CP brass urinal spreader with wall flange etc., complete,	Each	2.00
38	Supply and fixing Two way bib Cock Jaquar Modle No: CON-CHR-041KN	Each	2.00
39	Supply and fixing Health Faucet Jet with pipe make "Water Tech" color : White	Each	2.00

40	Supply and fixing Wash basin of Make: Jaquar Hindware, Parryware, varmora (56cm x 45cm) for under counter with suitable counter Basin brackets, CP Waste coupling (Jaquar make Item code ALD-709), 32mm flexible PVC waste pipe and 40mm dia PVC rigid waste pipe (6 kg/cm <sup>2</sup> ) concealed in wall up to floor trap, 1 No. angular Stop cock Jaquar make - Jaquar code: AQT-CHR-3057 with wall flange, 15x450mm PVC pipe connector - Kohinoor, 15 mm C.P. brass pillar tap Jaquar make Continental 1/2 inch Chrome Finish Pillar Cock, Code: CON-021KN	Each	3.00
41	Providing and fixing toilet paper holder :	Each	2.00
	C.P. Brass Make:Jaquar, Hindware		
42	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.		
42.10	Granite stone slab colour black, Cherry/Ruby red	Sqm	2.35

43	Providing and fixing stone slab with table rubbed, edges rounded and polished, of size 150x50 cm deep and 1.8 cm thick, fixed in urinal/Pantry partitions by cutting a chase of appropriate width with chase cutter and embedding the stone in the chase with epoxy grout or with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 6mm nominal size) as per direction of Engineer-in-charge and finished smooth. Granite Stone of approved shade	Each	1
44	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing :		
44.1	Rectangular shape 900x450 mm	Each	3.00
45	Supplying Wood- Plastic composite (WPC) doors frames (WPC) of Niki/Aakruti make, Density not less than 0.58g/cm <sup>3</sup> , using suitable screws to wall	Rmt	10.00
46	Supplying 30mm thick wood -plastic (WPC) composite doors( WPC) of Niki/Aakruti make, Density not less than 0.58g/cm <sup>3</sup> , including supplying 03Nos. Of 100mm ISmarked stainless steel Hings, 02 Nos of Aluminium Handles 01No. Of tower bolt and 1 No. Of 8" size aldrop set using suitable screws for each door etc all complete.		
46.1	Non decorative finish (matt finish)	Sqm	4.20



47	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/neoprene gasket etc.		
	Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :		
47.1	Powder coated aluminium (minimum thickness of powder coating 50 micron)	Kgs	212.00
47.2	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately) with Powder coated aluminium (minimum thickness of powder coating 50 micron)	Kgs	232.00
48	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge. (Cost of aluminium snap beading shall be paid in basic item):		
48.1	With float glass panes of 5 mm thickness (weight not less than 12.50 kg/ sqm)	Sqm	45.00

49	Providing and fixing 12 mm thick pre-laminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer in- charge.		
49.1	Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side.	Sqm	7.00
50	Supplying and fixing of aluminium Window lock "Star" Make	Each	50.00
51	Supplying and fixing the fixtures for aluminium Doors, and Partitions etc.		
	Power coated aluminium handles of size 100mm	Each	4.00
52	Supplying and fixing Narrow stile 4 lever mortise door lock for aluminium doors Make Godrej,product code :9158	Each	2.00
53	Supplying and fixing Zinc coated 8mm dia full thread rod for fixing to Aluminium door shutter including nuts etc	Kgs	1.92
54	Supplying and fixing Wool pile for Aluminium door shutter	Rmt	8.40
55	Supplying and fixing Aluminium towerbolt-300mm length	Each	2.00
56	Supplying and fixing Aluminium Pull and Push stickers	Set	2.00
57	Supplying and fixing Aluminium door stopper	Each	2.00
58	Supplying and fixing 125mm ISI marked Stainless steel hinges	Each	6.00

59	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately).		
59.1	Sal wood	Cum	0.15
60	Providing and fixing door shutter of 30mm thick of 'Swastik flush doors' Kitply Make both side commercial including fixing both side 1mm thick laminate sheet of " Anchor / Formica / Greenlam " Make and teak wood lipping of 32mm x 10mm around the shutter, including providing 3 Nos. of 125mm ISI marked Stainless steel hinges etc.	Sqm	4.80
	RS:4627.7+5%=4859.08/Sqm		
61	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :		
61.1	Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture	Sqm	51.00
62	"Supply and fixing Window handles made of Mild Steel for Existing windows along with nut bolt and PVC washer and making it to close properly etc all complete cost includes fixing available scaffolding for work wherever necessary."	Each	8.00
63	Supply and fixing Peg stags made Mild steel for Existing windows along with nut bolt and PVC washer and making it to fix properly etc all complete cost includes fixing available scaffolding for work wherever necessary.	Each	4.00

64	Renewing glass panes, with putty and nails wherever necessary including racking out the old putty:		
64.1	Float glass panes of nominal thickness 4 mm (weight not less than 10kg/sqm)	Sqm	6.61
65	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :		
65.1	One or more coats on old work	Sqm	55.00
66	Providing and fixing tiled false ceiling of specified materials of size 595x595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanized steel sections ( galvanized @ 120 grams/ sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38 mm made from 0.30 mm thick (minimum) sheet, spaced at 1200 mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600 mm panel to form grids of 600x600 mm and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, required cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm GI adjustable rods with galvanised butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200 mm center to center along main T, bottom exposed width of 24 mm of allT-sections shall be pre-painted with polyester paint, all complete for all heights as per specifications, drawings and as directed by Engineer-in-charge.		

66	GI Metal Ceiling Layed in perforated / Plain Tegular edge global white colour tiles of size 595x595 mm and 0.5 mm thick with 8 mm drop; made of GI sheet having galvanizing of 100 gms/sqm (both sides inclusive) and 20% perforation area with 1.8 mm dia holes and having NRC (Noise Reduction Coefficient ) of 0.5, electro statically polyester powder coated of thickness 60 microns (minimum),including factory painted after bending and perforation, including factory painted after bending and perforation, and backed with a black Glass fiber acoustical fleece	Sqm	190.00
67	Supply and fixing Homogeneous Vinyl flooring mm thick 2 x 2mtrs width in rolls of " Responsive Polyers Limited " of approved colour fixed by using recommended adhesive of Pidilite Ind., and making edges weld joint using Vinyl filament of matching pigment with hot gu0n as per standard, The rate should include for cleaning oil over the existing workshop floor with acid / petrol, filling floor damages if any with POP , etc., complete. No wastages will be accounted in the measurements.	Sqm	415.5
68	Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	Sqm	850.00
69	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.	Sqm	1000.00
70	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound ) content.		

70.1	With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre	Sqm	1000.00
71	Distemping with 1st quality acrylic distemper (ready mixed) having VOC (Volatile Organic Compound ) content less than 50 gram/ litre, of approved brand and manufacturer including applying additional coats wherever required to achieve even shade and colour		
71.1	Old work (one or more coats)	Sqm	425.00
72	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.	Sqm	890.00
73	Providing and laying in position to required level or slope rigid PVC pipe " Supreme / Finolex / Prince " make confirming to IS : 4985 for Sewer line including all fittings line elbow, Tee,bend 45° and jointing with cement solvent cost of ,cement solvent, labour charges work also includes the removing of old Asbestos pipes with fittings and fixtures all complete as per specifications and direction of Engineer in charge.		
73.1	110 mm OD -6Kg/cm2	Mtrs	23.20
74	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	Cum	75.00

75	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 and two coats of enamel paint etc all complete. With plates, angles, rods, channels, anchor bolts etc	Kgs	1010.00
	Rs:133.70/Kgs+18 for painting=151.70/kg		
76	Supplying and fixing approved brand colour coated Galvalume sheet <b>roofing</b> of 0.50mm thick, 550Mpa yield strength and coating class AZ150(minimum 150gm/sqm Zinc-aluminium alloy coating mass, total on both side) .The colour r coating shall be of overbaked paint system with silicon polyester or fluoro polymer 20micron thick topcoat overprimer (finished side),neutral back coat over primer(backside)over Galvalume sheet. The depth of rib profile shall be 31mm at a pitch of 250mm.The overall width of the sheet shall be 1050mm or more and length as required .The side lap shall be as recommended by the sheet manufacturer and end laps shall be 150mm. The Galvalume sheets shall be fixed through the crest to steel support using self drilling screws of size 12-14x45mm for steel supports up to 5.30 mm thick and 12-14x55mm with pre-drilled holes for steel supports upto 6.50mm+over .The rate includes cost of Galvalume sheet ,screws etc; required for the work. Finished area only measured for payment. Colour shall be off-white, Taurus blue, Light blue etc.,complete all as per specifications		
76.1	With 0.50mm acrylic/colour Coated Galvalume sheet for normal heights of 5mtr from FFL.	Sqm	66.00

		Sqm	20.00
77	<p>Supplying and fixing approved brand colour Galvalume sheet for <b>cladding</b> using approved colour sheet of 0.50mm thick, 550Mpa yield strength and coating class AZ150 (minimum 150gm/sqm Zinc-aluminium alloy coating mass, total on both sides). The colour coating shall be of over baked paint system with silicon polyester or fluoropolymer 20micron thick top coat over primer (finished side), neutral back coat over primer (backside) over Galvalume Sheet. The depth of rib profile 31mm at a pitch of 250mm. The overall width of the sheet shall be 1050mm or more and length as required. The sidelap shall be as recommended by the sheet manufacturer and end laps shall be 150mm. The Galvalume sheets shall be fixed through the crest to steel support using self-drilling screws of size 12-14x45mm for steel supports up to 5.30 mm thick and 12-14x55mm with pre-drilled holes for steel supports upto 6.50mm+over. The rate includes cost of Galvalume sheet, screws etc; required for the work. Finished area only measured for payment. Colour shall be off-white, Taurus blue, Light blue etc., complete all as per specifications</p>		
78	Supplying and fixing of Mechanical Anchor Bolts with washer ring including Drilling of holes in a concrete laid to Hold MS Plates in a Position to provide Stiffness to the Structure as per the direction of Engineer In-charge		
78.1	M16x150 mounting plates	Each	20.00
79	Providing and installing uPVC water gutters of size -200x140mmx3mm thk including pvc coated clamps, centre joints, leaf guard etc	Rmt	30.00
80	Finishing walls with Acrylic Smooth exterior paint of required shade :		
80.1	Old work (Two or more coat applied @ 1.67 ltr/10 sqm) on existing cement paint surface	Sqm	530.00



		Sqm	25.00
81	Labour charges for fixing and removing of available Scaffolding upto a height of <b>3+ Levels</b> including shifting inside the CMTI campus and tying using rope to maintain stiffness for working including labours, Rope, wheel Barrow, and required materials for shifting etc... Complete as per the direction of Engineer In-Charge.		
82	Providing and fixing in position factory made EPS cement sandwich wall/ roof/floor light weight solid core panels made of core material of EPS granule balls/beads (conforming to IS 4671:1984 and shall have density not less than 15kg per cum) adhesive, cement, sand, flyash and other bonding material in mortar state processed to form in a preset mould. The outer face on both sides of the panels will be non asbestos fiber cement board confirming to IS 14862:2000 or Calcium silicate board confirming to EN 14306:2009 of 5 mm thick each. Panel shall be laid on 6 mm thick cement mortar (1 cement: 2 fine sand) mixed with chemical adhesive of 0.5 kg per 50 kg of cement or shall be preferably fixed into 'C' channel made of 1.2 mm thick MS plate screwed / fastened to the slab/column/ beam etc. T		
	The panel shall fixed vertically with tongue and groove joint and horizontally locked with steel bar between each other and floors and filled with cement mortar and adhesive. Panels should be used as floor & roofing with additional structural support, steel or RCC depending upon the design. All the operation shall be completed in all respect as per drawings, Manufacturers specifications and under the overall direction of Engineer-in-Charge (Cost of all the material is included ).		

82.1	Non load bearing panels 75 mm thick of required size	Sqm	15.00
83	Providing and spreading floor hardner powder of M60 grade or above applying at the rate of 5Kg to 6Kg/SqM for the concrete area and finishing in smooth with power trowelling till the water gets dried completly and hard top layer is formed.	Sqm	272.00
84	Charges for cutting 3mm to 6mm thick and 15mm deep grooves on top of harnended concrete floor using cuttiing machines for expansion joints @ 3mc/c as directed by EIC	Rmt	60.00
85	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer with two coats of enamel paint, including welding and bolted with special shaped washers etc. complete		
85.1	Hot finished seamless type tubes	Kgs	1700.00
86	Providing and fixig GI chainlink fencing of required width in mesh size 25mmx25mm to 50mm x 50mm made out of GI wire of 3mm thick including srengthening with 2 dia wire or nuts, bolts and washers as required complete as per direction of Engineer in charge	Sqm	30.00
87	Providing and fixing required width in weldmesh size 25mmx25mm made out of GI wire of 3mm thick including srengthening with welding with existing frame work or nuts, bolts and washers as required complete as per direction of Engineer in charge	Sqm	30.00

88	Making Lintel by ISMC 150 in size by resting as simply supported at both ends on existing wall,including labour,Cutting as per size, welding rods, wrapping chicken mesh and rough plaster over th ISMC section ,Machinery hire charges etc all complete as per the direction of Engineer incharge	Each	3
89	Fabricating, Supply, Fixing 46 mm thick flush doors made of 0.8 mm thick PU painted GPSP sheet with PUF as infill having dnsity 40+/-2 Kg/m3, 1.2 mm thick GPSP powder coated door frames, with provisions for double glazing glass and hardwares like "Dorma make TS 71" door closure, SS D handle, SS ball bearing butt hinges, Both side operated lock and key, concealed tower bolt for the double doors etc.,		
89.1	Double Leaf - old cantee main entrance Door	Sqm	12
90	Glazing for Puff panel shutters <ul style="list-style-type: none"> <li>• Flush double-glazed fixed to the partition panels for the required sizes and quantity. (Tempered Glass thickness minimum 6 mm).</li> <li>• Glass of ISO 5 Yellow room to be of yellow colour.</li> <li>• Number and size of Windows as per the lab design/layout requirements.</li> </ul>		
90.1	View windows = 900x600mm	Sqm	0.54
91	Charges for groove cutting in concrete floor of grade M20 above by using cutting machine to make groove size of 50mm x 75mm and refilling with cement mortar 1:4 and finishing top surface to smooth(after cables/ pipes of 40 to 50mm dia are laid) and removing the debris and disposing it within a lead of 100m.	Mtr	100.00

92	Charges for Lifting, Shifting of rubble stones and other similar items within campus limits of 500m lead manually or mechanically per the direction of engineer in charge	Cum	9.71
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### Part B-Electrical works

1	Supply of 1.1 KV grade, 3/3.5/ 4C, Havells/Polycab/Unistar Make or as approved by EIC, XLPE insulated, and overall sheathed, stranded aluminium conductor, round wire armoured cables conforming to IS:7098/ Part I (with latest amendments)and of following size.The cable shall bear ISI certification mark.		
1.1	4C X 16 Sq.mm Aluminium armoured conductor cable	Metres	94.00
1.2	4C X 25 Sq.mm Aluminium armoured conductor cable	Metres	26.00
1.3	3.5C X 35 Sq.mm Aluminium armoured conductor cable	Metres	232.00
1.4	3.5C X 70 Sq.mm Aluminium armoured conductor cable	Metres	38.00
1.5	3.5C X 95 Sq.mm Aluminium armoured conductor cable	Metres	38.00
1.6	3.5C X 150 Sq.mm Aluminium armoured conductor cable	Metres	115.00
1.7	3.5C X 240 Sq.mm Aluminium armoured conductor cable	Metres	65.00
1.8	3.5C X 300 Sq.mm Aluminium armoured conductor cable	Metres	189.00
2	Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc.direct in ground (75 cm below ground level) including excavation and refilling the trench protective covering etc. but excluding sand cushioning and protective covering etc complete as required.		
2.1	63 mm dia (OD-63 mm & ID-51 mm nominal)	Metres	234.00

2.2	90 mm dia (OD-90 mm & ID-76 mm nominal)	Metres	130.00
2.3	120 mm dia (OD-120 mm & ID-103 mm nominal)	Metres	185.00
3	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing RCC/ HUME/DWC HDPE/ METAL pipe as required.		
3.1	4C X 16 Sq.mm Aluminium armoured conductor cable	Metres	61.00
3.2	4C X 25 Sq.mm Aluminium armoured conductor cable	Metres	12.00
3.3	3.5C X 35 Sq.mm Aluminium armoured conductor cable	Metres	160.00
3.4	3.5C X 70 Sq.mm Aluminium armoured conductor cable	Metres	25.00
3.5	3.5C X 95 Sq.mm Aluminium armoured conductor cable	Metres	25.00
3.6	3.5C X 150 Sq.mm Aluminium armoured conductor cable	Metres	81.00
3.7	3.5C X 240 Sq.mm Aluminium armoured conductor cable	Metres	38.00
3.8	3.5C X 300 Sq.mm Aluminium armoured conductor cable	Metres	189.00
4			
	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.		
4.1	4C X 16 Sq.mm Aluminium armoured conductor cable (28 mm)	each	4.00
4.2	4C X 25 Sq.mm Aluminium armoured conductor cable (28 mm)	each	2.00
4.3	3.5C X 35 Sq.mm Aluminium armoured conductor cable (32 mm)	each	10.00
4.4	3.5C X 70 Sq.mm Aluminium armoured conductor cable (38 mm)	each	2.00
4.5	3.5C X 95 Sq.mm Aluminium armoured conductor cable (38 mm)	each	4.00
4.6	3.5C X 150 Sq.mm Aluminium armoured conductor cable (50 mm)	each	4.00
4.7	3.5C X 240 Sq.mm Aluminium armoured conductor cable (62 mm)	each	5.00
4.8	3.5C X 300 Sq.mm Aluminium armoured conductor cable (70 mm)	each	12.00

5	Providing and fixing 6SWG dia G.I wire on surface or in recess for loop earthing as required	Metres	1594.00
6	Supply, fixing and Installation of exhaust fan , including making nessary arrangements for mounting, making good the damage, connection, testing, commissioning etc. as required. of exhaust fan with louvers of the following sizes		
6.1	Heavy Duty Exhaust Fan Make : Almonard Size : 380mm RPM : 900 Rating : 220-240V, 50 Hz	each	5.00
6.2	Heavy Duty Exhaust Fan Make : Almonard Size : 230mm RPM : 900 Rating : 220-240V, 50 Hz	each	2.00
7.0	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/casing and capping as required.		
7.1	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	Metres	245.50
7.2	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	Metres	210.00
8	Supply, Fixing, wiring and Termination of modular Switch Socket combination Box on the surface/recessed having : Switch: 15 Amps : 1 No, Indication lamp: 01 No Universal Socket : 16/6 Amps : 5 Nos	each	8.00
9	Supply and Installation of recessed LED light fittings complete with Electronic drivers and all other accessories prewired including electronic drivers, fittings conforming to IS-10322 with latest amendments of the following types. Installation of light fittings with flexible hose, suspension rod/chain.clamps etc. required for such installation and complete as per specifications including painting with approved shade paint and necessary interconnections.		
9.1	Supply of LED Light fittings in Recessed 2'x2'Size. Make : Wipro, Type No : CRCO10R040HE57G3/ equivalent, Rating : 230V, 40 Watts	each	45.00
10	Supply of Batten type LED Light Fittings Make : Wipro , 40 watts , 4400lm, 110 lm/w or Equivalent	each	35.00

11.0	Installation, testing and commissioning of pre-wired, fluorescent fitting / compact fluorescent fitting/ LED fitting of all types, complete with all accessories and tube etc. directly on ceiling/ wall, including connection with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	each	80.00
12	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.	each	87.00
13	Supplying and fixing cable route marker with 10cm X 10cm X 5 mm thick GI plate with inscription there on, bolted/ welded to 35 mm X 35mm X 6 mm angle, 60 cm long and fixing the same on the ground as required	each	20.00
14	Supply, fixing and wiring of LED street light with all the fixing accessories like pipe, clamps etc. Make : Philips/ equivalent. Rating : 60 watts, 230 V	each	1.00
15	Supply, fixing and wiring of the following rated MCB in weather proof enclosure. Make : ABB/ L&T/ Siemens		
15.1	6 Amps, 2 Pole, Type - 'C'	each	1.00
16	Removing of old fans, Distribution boards, light fittings, wirings, power points and shifting the same to scrap yard and closing power points with hylem/ PVC sheets as directed by the EIC.	Job	1.00
<b><u>UPS POWER DISTRIBUTION</u></b>			
17	Supply of 1.1 KV grade, 3/3.5/ 4C, Havells/Polycab/Unistar Make or as approved by EIC, XLPE insulated, and overall sheathed, stranded aluminium conductor, round wire armoured cables conforming to IS:7098/ Part I (with latest amendments)and of following size.The cable shall bear ISI certification mark.		
17.1	4C X 10 Sq.mm Aluminium armoured conductor cable	Metres	56.00

18	Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc.direct in ground (75 cm below ground level) including excavation and refilling the trench protective covering etc. but excluding sand cushioning and protective covering etc complete as required.		
18.1	63 mm dia (OD-63 mm & ID-51 mm nominal)	Metres	48.00
19	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing RCC/ HUME/DWC HDPE/ METAL pipe as required.		
19.1	4C X 10 Sq.mm Aluminium armoured conductor cable	Metres	48.00
20	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.		
20.1	4C X 10 Sq.mm Aluminium armoured conductor cable (25 mm)	each	2.00
20.2	4C X 6 Sq.mm Aluminium armoured conductor cable	each	4.00
21.0	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/casing and capping as required.		
21.1	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	Metres	132.00
22	Supply, Fixing, wiring and Termination of modular Switch Socket combination Box on the surface/recessed having : Switch: 15 Amps : 1 No, Indication lamp: 01 No Universal Socket : 16/6 Amps : 5 Nos	each	10.00
23	Supply,fixing and wiring of 16 A,2 Pole, Type-C,MCB in metal enclosure in surface / recessed as directed by EIC.	each	1.00



<b>Earthing for LESA and Old canteen</b>			
24.0	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required.	each	4.00
25.0	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50mm)	Metres	48.00
<b>Existing telephone re-routing</b>			
26	Supply, fixing ,installation and termination of telephone termination box for 20 pair cable with enclosure, khrono modules etc, including termination of existing telephone cable.	each	1.00
27	Supply and drawing of the following pair 0.5mm dia FRLS PVC insulated annealed copper conductor, unarmoured telephone cable in surface/recessed PVC conduit/casing and capping as required		
27.1	2 Pair	Metres	137.00
28	Supplying and fixing of the following modular switch/socket on the modular plate in surface/recessed including connections, modular plate etc. as required		
28.1	Telephone socket outlet	each	1.00

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## **8. SCHEDULE "D"**

### **MATERIAL ISSUE**

**For Civil Works:** No material will be issued to the contractor. All required materials for executing the work to be procured by the contractor

**For Electrical Works:** No material will be issued to the contractor. All required materials for executing the work to be procured by the contractor

## 9. SCHEDULE "E"

### PAYMENT AND PENALTY

1	Name of work	<b>Civil Renovation works at pump lab and GF canteen north block for Aerospace testing lab expansion including internal electrification works (Civil &amp; Electrical work)</b>
2	Date of commencement of work	15 <sup>th</sup> day of date of issue of work order/Lol.
3	Date of completion	<b>4 months</b> reckoned from the 15 <sup>th</sup> day of date of issue of work order/Lol.
4	Defects liability period	<b>12 (Twelve) months</b> from the actual date of completion of work.
5	Minimum value of work for interim Certificate (RA bill) for payment	<b>Rs. 14,00,000/- (Rs. Fourteen Lakhs only)</b>
6	Security Deposit	A sum @ 5% of gross amount of bill shall be deducted from each running bill, till the sum along with the sum already deposited as earnest money, amounts to security deposit @ 5% of the tendered amount of the work.
7	Release of Security Deposit	At the expiry of defects liability period of 12 months from actual date of completion
8	Refund of Performance Guarantee Deposit	The Performance Guarantee Deposit shall be refunded soon after completion of work, along with final bill.
9	Compensation for delay of work	<b>1% (one percent)</b> of tender value per week limited to 10% (Ten percent) of contract value.
10	Period of submitting the final bill by the contractors.	TWO months from the date of actual completion.

Contractors Signature

## 10 SCHEDULE--“F”

### Preferred MAKES FOR CIVIL & ELECTRICAL MATERIALS

Preferred make of materials

SL NO	MATERIAL	APPROVED MAKE
1	WHITE CEMENT	J.K. WHITE, BIRLA WHITE, ASIAN PAINTS
2	CHEMICAL ADMIXTURES	ARDEX ,ENDURA, FOSROC, MC, BAUCHEMIE, SIKA, BASF, PIDILITE, CHOKSEY CHEMICALS, BOSTIK
3	EXPANSION JOINT BOARD	SUPREME INDUSTRIES, SIL FILL OR EQUIVALENT, STP LTD, JOLLY BOARD
4	DAMP PROOF MATERIAL	ARDEX ENDURA, IMPERMO, DURASEAL, ACCO-PROOF
5	NON METALIC SURFACE HARDNER	ARDEX ENDURA, FOSROC, SIKA, PIDLITE,BOSTIK
6	INJECTION GROUTING	ARDEX ENDURA, FOSROC, SIKA, BASF, coco
7	CEMENT(IN 50 KG BAGS)	Ultratech/Zuari/ACC/Dalmia/Sankar
8	RMC / DMC	ULTRATECH, LAFARGE, ACC, RMC INDIA, PRISM OR EQUIVALENT APPROVED BY ENGINEER in CHARGE.
9	BITUMEN	INDIAN OIL, HINDUSTAN PETROLEUM, MANGALORE REFINERIES, BHARAT PETROLIUM
10	STEEL WORK /TMT BARS	IS MARKED TMT BARS OF SAIL, TATA, JSW, RINL OR THEIR AUTHORIZED DEALERS
11	STRUCTURAL STEEL	STRUCTURAL STEEL SECTIONS OF SAIL, TATA, JSPL, JSW, RINL, APPOLO OR THEIR AUTHORIZED DEALERS
12	AAC BLOCKS	XTRALITE FROM ULTRATECH, AEROCON FROM HIL, SIPOREX INDIA LIMITED, NCL
13	EPOXY MORTAR	ARDEX ENDURA, FOSROC, SIKA, BASF, ULTRATECH, BOSTIK, PIDILITE
14	CC BLOCKS/ FLYASH BLOCKS	SIPOREX, SUNVIK, HIL
15	FRP DOOR FRAME	MEENA, RAWJI, FIBERTECH, ASTRALWIN DOORS
16	FRP DOOR SHUTTERS	MEENA, RAWJI, FIBERTECH, ASTRALWIN DOORS
17	PVC DOOR SHUTTER AND DRAPE	RAJASHREE, SINTEX DUROPLAST
18	WOODEN FLUSH DOORS	KITPLY, CENTURY, GREENPLY, ARCHID PLY, KUTTY, DURIAN, MWP
19	WATER PROOF PLY	DURO, KITPLY, CENTURY, ARCHID PLY, GREENPLY, DURIAN, MWP
20	COMMERCIAL PLY.	DURO, KITPLY, CENTURY, ARCHID PLY, GREENPLY, DURIAN, MWP
21	LAMINATE	FORMICA, DECOLAM, CENTURY, ROYAL TOUCH, GREENLAM, DURIAN
22	HIGH PRESSURE LAMINATES	MERINO, GREENLAM, DECOLAM,

		CENTURY, ROYAL TOUCHE, DURIAN
23	PRELAMINATED PARTICLE BOARD	NOVOPAN, KITLAM, ARCHID PLY, CENTURY
24	NATURAL WOOD VENEER	ARCHID, ANCHOR, DURAN, KITPLY, NATIONAL ACTION TESA
25	POLYESTER POWDER COATED SHADES	NEROLAC, BERGER, AKZONOBEL, ASIAN
26	GYPSUM BOARD	SAINT GOBAIN, LAFARGE, BORAL BOARD, ARMSTRONG
27	FALSE CEILING tiles CALCIUM SILICATE/ powder coated G I panels	ARMSTRONG, AEROLITE, RAMCO
28	FALSE CEILING MINERAL FIBRE	SAINT GOBAIN, ARMSTRONG, ANUTONE
29	MELAMINE POLISH	ASIAN PAINTS, MALAMYNE GOLD WUDFIN OF PIDILITE INDUSTRIES TIMBERTONE OF
30	DOOR HARDWARE	DORMA, HAFELE, KICH, OZONE, DORSET, BACKERS FS, GODREJ
31	HYDRAULIC DOOR CLOSERS / FLOOR SPRINGS	DORMA, KICH, GODREJ, HARDMN, DORSET
32	LOCKS / LATCHES	GODREJ, DORMA HARRISON, LINK, DORSET,
33	FIRE CHECK DOOR	BANGALORE PROTECH, SHAKTI, NAVAIR, KENWOOD, VEROTECH
34	SMOKE SEAL STRIP	IMPROTED PROMAT / ASTRO FLAME
35	FIRE RATED HARDWARE	DORMA, INGERSOL RAND, GEZE, DORSET BACKERS FS
36	STAINLESS STEELSCREWS FOR FABRICATION AND FIXING OF WINDOWS.	KUNDAN, PUJA, ATUL, GRIPWELL, NAKODA
37	BUTT / BALL BEARING HINGES	HAFFLE, DORMA, DORSET, GODREJ
38	PIANO HINGES	JOLLY, GARG, AMT, JYOTI
39	NUTS BOLTS/ SCREWS	KUNDAN, PUJA, ATUL, IT, BOLT MASTER, GRIPWELL, NAKODA
40	ACOUSTIC INSULATION	U.P. TWIGA LTD, LLOYD INSULATION, SAINT GOBAIN, ARMSTRONG
41	GLASS/ REFLECTIVE GLASS	MODI FLOAT, SAINT GOBAIN, ASAHI, GLAVERBEL
42	UPVC WINDOWS / VENTILATION	FENESTA, REHAU, ENCRRAFT DUROPLAST WINTTECH, NCL, INDUSTRIES, LG
43	SOURCE FOR TEMPERING REFL. GLASS / CLEAR	FUSO, SAINT GOBAIN, GURIND, IMPACT SAFETY
44	FIRE RATED GLASS	PYOSWISS OF SAINT GOBAIN, PYRAN OF SCHOTT, PILKINGTON
45	VITRIFIED TILES	KÄJARIA, JOHNSON. SOMANY, NITCO, ORIENT, BELL, RAK CERAMICS,
46	GLAZED CERAMIC TILES	JOHNSON. SOMANY, KAJARIA NITCO, ORIENT BELL, RAK CERAMICS
47	FALSE FLOOR	HESWTSÖN, UNIPLOOR, UNITILE, KEBAO, PINNACLE
48	ENGINEERED WOOD/LAMINATE FLOORING	ARMSTRONG, WERNEL, PERGO, ACTION TESA, WELSPUN
49	CEMENT CONCRETE PARKING TILES	NITCO, NTC, HINDUSTAN, PODDAR EUROCON, DAZZLE ULTRA
50	INTERLOCKING CONCRETE BLOCKS	NITCO - (ROCKARD), BHARAT - (NILSAN)

		REGENCY, BESANT BEATONS
51	CLAY TILES ON ROOF	KENJAI, JOHNSON, COMMON WEALTH TRUST (IND) LTD, ST.ANTONYS
52	TILE ADHESIVE	ARDEX ENDURA, CICO, PIDILITE, PERROUS, FOSROC, SIKA
53	CHEQUERED TERRAZO TILES	NITCO, BHARAT, PODDAR
54	SYNTHETIC CARPET TILES	TOLI, HOLLITEX, STANDARD CARPETS, WELSPUN
55	GLASS MOSAIC TILES	ITALIA, PALLADIO, BISAZZA
56	PAINT/PRIMER/OILBOUND DISTEMPERACRYLIC PAINT	ASIAN PAINTS, ICI DULUX, NEROL-ACY BERGER
57	WATER PROOF CEMENT PAINT	SNOWCEM INDIA LTD, ASIAN PAINTS, ICI DULUX, NIPPON PAINTS
58	SYNTHETIC ENAMEL PAINT	BERGER, NEROLAC, ASIAN, ICI DULUX
59	ACRYLIC TEXTURED PLASTER	ASIAN PAINTS, ICI DULUXI NEROLAC, BERGER
60	FIRE RETARDANT PAINT	JOTUN, HILTI, AKZONOBEL, NIPPON
61	MIRROR GLASS	MODI GUARD, SAINT GOBAIN, ASAHI, ATUL, GOLDENFISH
62	ANTI CORROSIVEBITUMASTIC PAINT	ASIAN / BERGER / SHALIMAR
63	EPOXY PAINT	BERGER PAINTS, ASIAN PAINTS, MRF, ARDEX ENDURA, NIPPON
64	EPOXY COATING	ARDEX, ENDURA, BASF, FORSOC LATICRETE, MRF, BOSTIK , SIKA
65	STRUCTURAL SILICON/ WEATHER SILICON	DOW CORNING / WACKER / GE
66	ACRYLIC EXTERIOR PAINT	ASIAN PAINTS, BERGER, NEROLAC
67	ALUMINIUM SYSTEMS / ANODIZED ALUMINUM FITTINGS FOR DOORS WINDOWS / WINDOWS	HARDIMA, EVERITE, SIGMA (ISI MARKED) JYOTHI, Ozone, Dorma
68	STAINLESS STEEL FITTINGS	DORSET, GODREJ, DORMA, OZONE, KITCH
69	ALUMINUM SECTIONS	JINDAL, HINDALCO, INDALCO
70	FRICTION STAY HINGES	EBCO, HAFELE, SEVAX
71	ALUMINUM COMPOSITE PANEL (ACP)	ALUCOBOND, EUROBOND, DURABUILD
72	E.P.D.M. GASKETS	ANAND / ROOP / BOHRA / HANU / AMEE RUBBER
73	WATER PROOFING COMPOUND	SIKA, ACCOPROOF, IMPERMO, FOSROC PIDILITE, ARDEX ENDURA, BOSTIK, BERGER
74	MEMBRANE WATERPROOFING SYSTEM	BASF, TEXSA, WR GRACE, PIDILITE, HYDRO TECH LTD. ARDEX ENDURA, BOSTIK, FOSROC.
75	POLYMER BASEDCONTENTIOUS WATERPROOF COATINGS	ARDEX ENDURA, BASF, MC-BAUCHEMIE, SIKA, FORSOLOC, PIDILITE, BERGER
76	WATER STOPS	ARDEX ENDURA, HYDROTITE, BASF, HYDROSWELL, PIDILITE, BOSTIK
77	PVC PERFORATED PIPES	REX POLYEXTRUSION LTD, AKASH ENTERPRISES, ZENPLAS PIPES PVT. LTD
78	MS PIPES	SAIL , TATA, JINDAL, APOLLO
79	POLYSULPHIDE SEALANT	PIDILITE, CHEMETALL-RAJ, FOSROC, CHOKSEY CHEMICALS, TUFF SEAL
80	BITUMEN IMPREGNATED ROD	SHALITEX OR EQUIVALENT

81	POLYETHYLENE BACKER ROD	SUPREME IND. LTD. OR EQUIVALENT
82	FALSE CEILING MEMBERS (PERIMETER, CEILING SECTION, INTERMEDIATES, ANGLES ETC.)	ARMSTRONG, GYP. ROCK (SAINT GOBAIN)
83	WELDING ROD	ADVANI, ESAB
84	METAL DECK SHEET	TATA, JINDAL, ALFA, KAI-ASH ROOFIN
85	SHEAR STUD / CONNECTOR	KOCO OR EQUIVALENT
86	CLAMP. REBAR, CHEMICAL FASTENER	HILTI, FISCHER, WURTH, AXEL
87	ANCHOR FASTENERS / BOLTS	HILTI, FISHER, CANON, BOSCH, AXEL
88	MASKING TAPES	3M, SUN CONTROL, WONDER POLYMER
89	DASH FASTENERS	HILTI, FISHER, CANON, BOSCH, AXEL
90	STAINLESS STEEL BOLTS, WASHERS AND NUTS	ATUL / HILTI / GRIPWELL / NAKODA
91	GRC JALI	TERRAFIRMA, ECOVISION, BIRLA WHITE GRC, EVEREST GRC
92	STAINLESS STEEL	SALEM, JINDAL, SAIL v.A.
93	POLYCARBONATE SHEET	DANPALON, ALCOX, POLYGAL, CORPORATION, ALFA, GE, LEXON, TUFLITE
94	PT STRANDS	DP WIRES, TATA, USHA MARTIN
95	ADHESIVE (MANUFACTURE SPECS)	ARDEX ENDURA, DUNLOP, VAMORGANIC, SIKA, FOSROC, PIDLITE, BOSTIK
96	NON SHRINK -GROUTS	KERAKOLL, WEBER, ARDEX ENDURA, BOSTIK, FOSROCK, PIDILITE
97	SOLAR STUDS / MEDIAN MARKERS	3M, AVERY DENNISON, NIKKALITE
98	POLYCARBONATE CONVEX MIRRORS, RUBBERISED ROAD HUMP	UNIQUE SAFETY SOLUTIONS
99	AIR TRANSFER GRILLS	COOL GRILLS PUNE, SYSTEMAIR INDIA
100	THERMAL INSULATION TREATMENT	PIDLITE, BASF, BERGER, ARDEX ENDURA
101	VITREOUS WC / WASH BASIN	PARRYWARE, HINDWARE, CERA, JAQUAR
102	GULLY TRAPS	PERFECT, PARRY
103	STAINLESS STEEL SINKS	NILKANTH, AMC, COBRA, NIRALI, DIAMOND, HINDWARE
104	C. P. BRASS FITTINGS	JAQUAR, PARKO, MARC, HINDWARE, PARRYWARE, KINGSTON
105	GI PIPES	TATA, JINDAL, HISSAR
106	GI PIPE FITTINGS	ZOLOTO, UNIK, HB, ICS
107	RCC PIPES	INDIAN HUME PIPE, MOHAN HUME PIPE, BANGALORE CEMENT PIPES
108	SPUN CAST IRON COVERS & GRATINGS	NECO, SKF/ BENGAL IRON CORPORATION
109	SPUN CAST IRON PIPES	NECO, SKF/ BENGAL IRON CORPORATION
110	SPUN CAST IRON FITTINGS	NECO, SKF/ BENGAL IRON CORPORATION
111	SWR PVC PIPES AND FITTINGS	SUPREME, FINOLEX, PRINCE, ASTRAL
112	CPVC PIPE AND FITTINGS	SUPREME, ASHRIVAD, FINOLEX, FLOWGARD, ASTRAL
113	UPVC PIPES	SUPREME, FINOLEX, ASHRIVAD, ASTRAL
114	WATER SUPPLY VALVES	ZOLOTO, LEADER, ARCO
115	CI MANHOLE COVER	NECO, BIC
116	SFRC COVER AND GRATING	TULSHI CONCRETE, KK, ADVENT, NEWTECH
117	AIR RELEASE VALVES	KIRLOSKAR, RBM, KARTAR
118	CI DOUBLE FLANGE SLUICE VALVE	KIRLOSKAR, RBM, KARTAR

119	PLASTIC ENCAPSULATED FOOT REST	KK INDIA, KGM, ACCURATE BUILDCON
120	GUN METAL VALVES	ZOLTO, LEADER, SANT, ANDCO INDIA
121	CI DOUBLE F LANGED SLUICE VALVES	KIRLOSKAR, tvs, BURN, ZOLOTO, LEADER
122	CI DOUBLE FLANGED NON-RETURN VALVES	KIRLOSKAR, FLUIDTEH, ZOLOTO
123	SANDWICH PU PANELLED ROOFING SHEETS	LLOYD INSULATION (INDIA) LTD, JINDAL, MECTEC PVT LTD., TATA
124	GALVALUME SHEET	LLOYD (INDIA) LTD., JSW, TATA BLUESCOPE
125	STREET LIGHT POSTS	BAJAJ/ TRANSLIGHTING/ PHILIPS
126	SWITCH GEARS	L & T/ SIEMENS/SCHNEIDER
127	WIRES AND CABLES	POLYCAB/ FINOLEX/ LAPP/HAVELLS/ ANCHOR/ UNISTAR/ KEI
128	LIGHT FITTINGS	PHILIPS/WIPRO/C&G/ OSRAM/HAVELLS/ LUKER

Note: Any deviation from the above makes require prior approval of Engineer- in charge and the bidder need to give justification for non-availability of the above preferred makes to the entire satisfaction of Engineer- in- charge.



**11 SCHEDULE-“G”**

**LETTER OF TRANSMITTAL**

**(To be submitted along while uploading tender)**

From:

Shri/M/s.....

.....

.....

To,

The Executive Engineer cum Group Head  
Engineering services  
Central Manufacturing Technology Institute,  
Tumkur road, Bangalore-560022.

Sub: **Civil Renovation works at pump lab and GF canteen north block for Aerospace testing lab expansion including internal electrification works (Civil & Electrical work)**

Sir,

Having examined the details given in Press – Notice /Bid document for the above work, I / we hereby submit the relevant information.

1. I/We hereby certify that all the statement made and information supplied as enclosed with the tender and accompanying statement are true and correct.
2. I/We have furnished all information and details necessary for eligibility and have no further pertinent information to supply.
3. I/We submit the requisite certified solvency certificate and authorize the Section In charge, Engineering Services, CMTI, Bengaluru to approach the Bank issuing the solvency certificate to confirm the correctness thereof. I/We also authorize CMTI, Bengaluru to approach individuals, employers, firms and corporation to verify our competence and general reputation.
4. I/We submit the following certificates in support of our suitability, technical knowledge and capability for having successfully completed the following eligible similar works:-

Sl.no	Name of Works	Completion Certificate issued by
-------	---------------	----------------------------------

1		
2		
3		

It is certified that the information given in the enclosed eligibility bid are correct. It is also certified that I/We shall be liable to be debarred, disqualified/ cancellation of enlistment in case any information furnished by me/us found to be incorrect.

Enclosures:

Seal of bidder

Date of submission SIGNATURE(S) OF BIDDER(S)

**12 DETAILS OF ALL WORKS OF SIMILAR NATURE COMPLETED DURING THE LAST SEVEN YEARS  
ENDING PREVIOUS DAY OF LAST DATE OF SUBMISSION OF BIDS**

(use separate sheet if space is not sufficient)

Name of the firm / contractor.....

Sl. No	Name of work / project and location	Owner or Client organization	Cost of work in Lakhs	Date of commencement as per contract	Stipulated Date of completion	Actual date of completion	Litigation / arbitration cases pending / in progress with details*	Name and Address (Postal & E- mail) / telephone number of officer to contact
1	2	3	4	5	6	7	8	9

Certified that the above list of works is complete and no work has been left out and that the information given is correct to my / our knowledge and belief.

SIGNATURE OF BIDDER(S) WITH STAMP

\*indicate gross amount claimed and amount awarded by the Arbitrator.

### 13 FORMAT FOR SOLVENCY CERTIFICATE

#### FORM OF BANKERS' SOLVENCY CERTIFICATE FROM A SCHEDULED BANK

This is to certify that to the best of our knowledge and information that

M/s./Shri..... having marginally noted address, a customer of our bank are / is respectable and can be treated as good for any engagement up to a limit of Rs.....(Rupees.....  
.....).

This certificate is issued without any guarantee or responsibility on the bank or any of the officers.

(Signature)  
For the Bank

NOTE : 1) Banker's certificate should be on letter head of the Bank, addressed to Director, CMTI, Bangalore,.

2) In case of partnership firm, certificate should include names of all partners as recorded with the Bank.

3) The certificate should not be more than 12 months old from the original date of submission

## 14 Form of Performance Security (Guarantee)

### Bank Guarantee Bond

In consideration of the Director, CMTI (hereinafter called "The Employer") having offered to accept the terms and conditions of the proposed agreement between Group Head, Engineering services, CMTI, Bengaluru and ..... (here in after called "the said Contractor(s)") for the work "**Civil Renovation works at pump lab and GF canteen north block for Aerospace testing lab expansion including internal electrification works (Civil & Electrical work).**" (here in after called "the said agreement") having agreed to production of an irrevocable Bank Guarantee for Rs. .... (Rupees ..... only) in favour of Central Manufacturing Technology Institute(CMTI), Bengaluru as a security/guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement.

1. We, ..... (hereinafter referred to as "the Bank") hereby undertake to pay to CMTI an amount not exceeding Rs. .... (Rupees.....Only) on demand by CMTI.

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

3. We, the said bank further undertake to pay CMTI any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the Contractor(s) shall have no claim against us for making such payment.

4. We, ..... (indicate the name of the Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of CMTI under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Group Head, CMTI on behalf of CMTI certified that the terms and conditions of the said agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.

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

6. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).

7. We, ..... (indicate the name of the Bank) lastly undertake not to revoke this guarantee except with the previous consent of CMTI in writing.

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

Dated the .....day of .....for.....(indicate the name of the Bank)

**15. ARTICLES OF AGREEMENT**

ARTICLES OF AGREEMENT made at Bangalore this day of \_\_\_\_\_

\_\_\_\_\_ BETWEEN THE CENTRAL MANUFACTURING TECHNOLOGY INSTITUTE, Registered under the Karnataka Societies Registration Act, 1960 having its Registered office at Tumkur Road, Bangalore (hereinafter referred to as the EMPLOYER which expression shall include its successors and assigns and all the persons for the time being in management of the Institute) of the ONE PART and \_\_\_\_\_ having its registered office at \_\_\_\_\_

\_\_\_\_\_ (hereinafter referred to as the CONTRACTOR which expression shall include its partners, their respective heirs, executors, administrators and assigns) of the OTHER PART.

WHEREAS the employer is desirous of getting the work of \_\_\_\_\_

\_\_\_\_\_ AND WHEREAS the contractor /s has /have agreed to execute the aforesaid works on terms and conditions mentioned herein and subject to General Conditions of Contract – Schedule-A, Specifications - Schedule-B Schedule of Quantities - Schedule-C, Payment& Penalty – Schedule-E, Approved makes- Schedule-F, Letter of Transmittal Schedule-G and WHEREAS the contractor / s has / have deposited in Demand Draft /BG a sum of Rs..... (Rupees .....) only with the employer as Security for the due performance of this agreement.

NOW IT IS HEREBY AGREED AND DECLARED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS:

1. In consideration of the payment to be made to them as hereinafter, provided the contractor / s shall subject to the terms and conditions, specifications, bill of quantities, drawings etc., more particularly stated in the Schedule aforesaid, execute and complete the works within \_\_\_\_\_ from the 15<sup>th</sup> day of date of issue of work order.
2. The employer shall pay to the contractor / s such sums as shall become payable hereunder at the time and in the manner specified in the conditions contained in Schedule - A, Schedule- C and Schedule – E aforesaid.
3. Time is the essence of this Agreement and the contractor / s shall pay or allow the employer a sum of **1.0% (one percent)** of Tender value per week limited to 10% (Ten percent) of tender value as liquidated damages for the period during which the said works shall remain incomplete beyond the time allowed in clause (1) above or beyond the time duly extended in writing as per conditions in





## 16. INTEGRITY PACT

The bidder needs to enter into an integrity pact agreement with CMTI for which the format is given below. The scope covered under the integrity pact will be monitored by CMTI appointed independent external monitors as mentioned below.

- 1) Shri.Arvind Kumar Arora, IDSE(rtd)  
Mob:8130588577, 9868236340  
email- arvindarora333@gmail.com
- 2) Shri. Mukundan R  
Mob: 9790344575  
email -r.mukundan29@gmail.com

### INTEGRITY PACT

**Tender Ref. No. & Date:**.....

1. This Integrity pact Agreement is made at..... on this.....day of.....  
.....20..... BETWEEN **Central Manufacturing Technology Institute(CMTI)** represented by its **Purchase Officer/ Executive Engineer / Chief Administrative Officer**, Hereinafter referred as the Buyer/ Owner, which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns) AND **M/s** ..... hereinafter referred to as the (Details of duly authorized signatory) "Bidder/Contractor" and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

#### 2. Preamble

WHEREAS the Owner/ Buyer has floated the Tender under organizational procedures (hereinafter referred to as "Tender/Bid") and intends to procure/ award ..... contract for ..... hereinafter referred to as the Goods/ Services/ works/ Contract. AND WHEREAS the Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s). AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as "Integrity Pact" or "Pact"), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties. NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

#### 3. Commitment of the Buyer/ Owner

- 3.1 The Buyer/ Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:
  - a. No employee of the Buyer/ Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the

- Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
- b. The Buyer/ Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Buyer/ Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.
  - c. The Buyer/ Owner shall endeavour to exclude from the Tender process all known prejudiced persons or any person, whose conduct in the past has been of biased nature.
- 3.2 If the Buyer/ Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or if there be a substantive suspicion in this regard, the Buyer/ Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

#### **4. Commitment of the Bidder(s)/ seller(s)/ Contractor(s)**

- 4.1 It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to CMTI all suspected acts of fraud or corruption or Coercion or Collusion of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.
- 4.2 The Bidder(s)/Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution.
- a. The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Buyer/ Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.
  - b. The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.
  - c. The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act Indian Legislation, Prevention of Corruption Act 1988 as amended from time to time. Further the Bidder(s)/ Contract(s) will not use improperly, for the purpose of competition or personal gain, or pass on to others, any information or documents provided by the Buyer/ Owner as part of the

- business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- d. The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/ representatives in India, if any. Similarly Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign principals/ agents/ representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participates in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.
  - e. The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.
  - f. The Bidder(s)/Contractor(s) have not sold and will not sell the same material/equipment at prices lower than the bid price.
- 4.3 The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 4.4 The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice (means a willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of CMTI's t interests).
- 4.5 The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/ her reputation or property to influence their participation in the tendering process).
- 4.6 The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Subcontractors/sub-vendors.
- a. The Buyer/ Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.
  - b. The Buyer/ Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Buyer/ Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process

## **5. Previous Transgression**

- a. The Bidder declares that no previous transgressions occurred in the last 3 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his

exclusion from the Tender process. The date of such transgression, for the purpose of disclosure by bidders in this regard, would be the date on which cognizance of the said transgression was taken by the competent authority. The Transgression(s), for which cognizance was taken even before the said period of three years, but are pending conclusion, shall also be reported by the bidders.

- b. If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Buyer/ Owner.
- c. If the Bidder/Contractor can prove that he has resorted / recouped the damage caused by him and has installed a suitable corruption prevention system, the Buyer/ Owner may, at its own discretion, revoke the exclusion prematurely.

## **6. Consequences of Breach**

Without prejudice to any rights that may be available to the Buyer/ Owner under law or the Contract or its established policies and laid down procedures, the Buyer/ Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/ Contractor accepts and undertakes to respect and uphold the Buyer/ Owner's absolute right:

- a. If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Clause 4 & Clause 5 above, or in any other form such as to put his reliability or credibility in question, the Buyer/ Owner—after giving 14 days notice to the contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the Tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Buyer/ Owner. Such exclusion may be forever or for a limited period as decided by the Buyer/ Owner.
- b. Forfeiture of EMD/Performance Guarantee/Security Deposit: If the Buyer/ Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.
- c. Criminal Liability: If the Buyer/ Owner obtains knowledge of conduct of a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of IPC Act, or if the Buyer/ Owner has substantive suspicion in this regard, the Buyer/ Owner will inform the same to law enforcing agencies for further investigation.

## **7. Compensation for Damages**

- a. If the Buyer/ Owner has disqualified the Bidder(s) / Seller(s) from the tender process prior to the award according to Clause 8, the Buyer/ Owner is entitled to demand and recover the damages equivalent to Earnest Money Deposit in case of open tendering.
- b. If the Buyer/ Owner has terminated the contract according to Clause 6, or if the Buyer/ Owner is entitled to terminate the contract according to Clause 6, the Buyer/ Owner shall be entitled to encash the advance bank guarantee and performance bond/ warranty bond, if furnished by the Bidder(s)/Seller(s), in order to recover the payments, already made by the Buyer/ Owner for undelivered Goods and / or Services and / or Works.
- c. The Bidder(s)/Seller(s) shall also be liable to refund to the Buyer/ Owner, the Agency Commission / payments made by the Seller(s) / Bidder(s) along with interest at the rate of 2% per annum above LIBOR (London Inter Bank Offer Rate) (for foreign vendors) and Base Rate of SBI (State Bank of India) plus 2% (for Indian vendors).

#### **8. Independent External Monitor(s)**

- a. The Buyer/ Owner has appointed Independent External Monitor(s) for this Integrity Pact after approval by the Central Vigilance Commission. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- b. For ensuring the desired transparency and objectivity in dealing with the complaints arising out of any tendering process or during execution of contract, the matter should be examined by the full panel of IEMs jointly, who would look into the records, conduct an investigation, and submit their joint recommendations to the Management.
- c. The IEM is not subject to instructions by the representatives of the parties and performs his/ her functions neutrally and independently. The IEM would be provided access to all documents/ records pertaining to the contract for which a complaint or issue is raised before them, as and when warranted. However, the documents/ records/ information having national Security Implications and those documents which have been classified as Secret/ Top Secret are not to be disclosed. He/ she reports to the Director, CMTI.
- d. If any complaint with regard to violation of the IP is received by the Buyer/ Owner in a procurement case, the Buyer/ Owner shall refer the complaint to the Independent External Monitor(s) for their report. Contact details of IEMs are given in the bid/ tender documents as well as in the website of CMTI <https://cmti.res.in>
- e. The Bidder(s)/Contractor(s) accepts that the IEM has the right to access without restriction to all Project documentation of the Buyer/ Owner including that provided by the Contractor. The Contractor will also grant the IEM, upon his/ her request and demonstration of a valid interest, unrestricted and unconditional access to their project documentation. The same is applicable to Sub-contractors.
- f. The IEM is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s)/ Sub-contractor(s) with confidentiality. The IEM has also signed declarations on 'Non-Disclosure of Confidential Information' and of 'Absence of Conflict of Interest'. In case of

- any conflict of interest arising at a later date, the IEM shall inform Director, CMTI and recuse himself / herself from that case.
- g. The Buyer/ Owner will provide to the IEM sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Buyer/ Owner and the Contractor. The parties offer to the IEM the option to participate in such meetings.
  - h. As soon as the IEM notices, or believes to notice, a violation of this agreement, he/she will so inform the Management of the Buyer/ Owner and request the Management to discontinue or take corrective action, or to take other relevant action. The IEM can in this regard submit non-binding recommendations. Beyond this, the IEM has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
  - i. The IEM will submit a written report to the Director, CMTI, within 4 weeks from the date of reference or intimation to him by the Buyer/ Owner and, should the occasion arise, submit proposals for correcting problematic situations
  - j. If the IEM has reported to the Director, CMTI, a substantiated suspicion of an offence under relevant IPC/ PC Act, and the Director, CMTI has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the IEM may also transmit this information directly to the Central Vigilance Commissioner.
  - k. The word 'Monitor' would include both singular and plural.

#### **9. Duration of the Pact**

- a. This Pact will be effective from the date of issue of tender (NIT). It expires for the Contractor/Vendor 12 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other unsuccessful bidders, within 6 months from date of placement of order / finalization of contract against this tender till the Contract has been awarded.
- b. If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Director, CMTI.
- c. Should one or several provisions of this Integrity Pact turn out to be invalid, the remainder of this Integrity Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

#### **10. Other Provisions**

- a. Changes and supplements need to be made in writing. Side agreements have not been made.
- b. After award of work, the IEMs shall look into any issues relating to execution of contract, if specifically raised before them.
- c. The Bidder(s)/Seller(s) signing this IP shall not initiate any Legal action or approach any court of law during the examination of any allegations/complaint by IEM and until the IEM delivers the report.
- d. In the event of any dispute between the management and the Bidder(s)/Seller(s), relating to those contracts where Integrity Pact is applicable, the same will be settled through mediation before the panel of

IEMs within 4 weeks. In case the dispute remains unsolved even after mediation by the panel of IEMs, CMTI will take further action as per the terms and conditions of the contract in respect of dispute resolution/ arbitration.

- e. Nothing contained in this Integrity Pact shall be deemed to assure the Bidder(s)/ Seller(s) of any success or otherwise in the tendering process.
- f. If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.
- g. Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- h. This Integrity pact is subject to Indian Laws, and exclusive Jurisdiction of Courts at Bangalore, India.
- i. The Parties hereby sign this Integrity Pact at \_\_\_\_\_ on \_\_\_\_\_ (Bidder(s)/contractor) and at \_\_\_\_\_ on \_\_\_\_\_ (Buyer/ Owner)

**11. LEGAL AND PRIOR RIGHTS**

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard any of the provisions covered under this Integrity Pact.

IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following

Witnesses:

(For and on behalf of Buyer/ Owner)      (For and on behalf of Bidder/Contractor)

WITNESSES: 1.....  
(signature, name and address)

2.....  
(signature, name and address)

Place:

Date

## 17. NON-BLACK LISTED SELF DECLARATION

[To be provided on the letterhead of the Bidder and should be signed by a person with the proper authority to sign documents that are binding on the Bidder]

This is to certify that M/s. ....[Name of Bidder] has not been blacklisted by any Indian Central / State Government Department /PSU/ any other Purchasing authority /organization in last 3 years.

Authorized Signatory with seal  
For and on behalf of bidder