Notice Inviting Tender

Name of Work: - Comprehensive Maintenance of Civil, Electrical & Air Conditioning work at Hostels (Boys & Girls) under whole campus at IIT Delhi.

Civil work	**:**	**Rs. 4,34,23,426/-**
Electrical	**:**	**Rs. 4,12,94,939/-**
Air Conditioning	**:**	**Rs. 1,04,47,368/-**
Total	**:**	**Rs. 9,51,65,733/-**

INDIAN INSTITUTE OF TECHNOLOGY DELHI
HAUZ KHAS, NEW DELHI
(Works Department)

INDIAN INSTITUTE OF TECHNOLOGY DELHI
HAUZ KHAS, NEW DELHI-110016

INDEX

Name of work: - Comprehensive Maintenance of Civil, Electrical & Air Conditioning work at Hostels (Boys & Girls) under whole campus at IIT Delhi.

It is certified that this document contains three parts i.e. Part A, Part B & Part C containing page no. **1 to 164.**

Executive Engineer (ED-I) **Executive Engineer (CD-III)**

NIT approved for Rs. 9,51,65,733/-
(Civil work for Rs. 4,34,23,426/- + Electrical for Rs. 4,12,94,939/-
+ Air Conditioning for Rs. 1,04,47,368/-)
(Rupees Nine Crore Fifty One Lakhs Sixty Five Thousand Seven Hundred Thirty Three only)

INSTITUTE ENGINEER

J.E (E) A.E (C) A.E.E(AC) EE[ED-I] EE[CD-III]

INDIAN INSTITUTE OF TECHNOLOGY DELHI
HAUZ KHAS, NEW DELHI-110016
IITD/WORKS(SP-5067)/2025

Notice Inviting e -Tender

The Executive Engineer (CD-III), IIT DELHI, HAUZ KHAS, New Delhi-16 (**Phone No 011-26596237**) on behalf of Board of Governors invite online **Item rate tender** from Firms/ Contractors Registered in appropriate class and category with CPWD, MES, BSNL, and Railways for **Composite/ Civil (B/B&R)/ Civil works** for the following work:

NIT No.	:	... /IITD/EE(CD-III)/2025-26
Name of Work	:	Comprehensive Maintenance of Civil, Electrical & Air Conditioning work at Hostels (Boys & Girls) under whole campus at IIT Delhi.
Estimated cost	:	Rs. 9,51,65,733/-
Earnest Money	:	Rs. 19,03,315/- **(To be returned after submission of PG)**
Performance Guarantee	:	5% of Tendered value
Security Deposit	:	2.5% of Tendered Value
Warranty	:	5 Years for Lighting Fixtures and 1 Year for other work. 5 Years for water proofing work.
Period for completion	:	12 Months
Last date & time for submission of bids	:	13/08/2025 upto15.00 Hrs.
Date & Time of opening of Bids	:	14/08/2025 at 15.00 Hrs.

The bid forms and other details can be obtained from the website **wwww.iitd.ac.in or e-procure.gov.in free of cost.** For more clarifications you may visit on above website.

Executive Engineer (CD-III),
For & on Behalf of BOG, IIT Delhi

Budget Head: Operation And Maintenance Of Building Services/31.06.30 (2021/007/0471)

Copy to: -

1. Institute Engineer
2. Executive Engineer (ED-I) for information.
3. A.R (E & W)
4. D.R. (A/Cs) – for opening of uploaded documents **at 3:00 PM on 14/08/2025** in the office of D.R. Store
5. Notice Boards.
6. Office Copy
7. Web site Administrator, IITD.

PART 'A'

INDIAN INSTITUTE OF TECHNOLOGY: DELHI
HAUZ KHAS: NEW DELHI – 110016

INFORMATION AND INSTRUCTIONS FOR BIDDERS FOR e-TENDERING (Tender Notice)

The Executive Engineer (CD-III), IIT DELHI, HAUZ KHAS, New Delhi-16 (**Phone No 011-26596237**) on behalf of Board of Governors invites online **Item Rate Tender** from Firms/ Contractors Registered in appropriate class and category with CPWD, MES, BSNL, and Railways **for Composite/ Civil (B/B&R)/ Civil works** of the following work:

SL. No.	NIT No.	Name of Work	Estimated Cost (in Rs.)	Earnest Money (in Rs.)	Tender Fees (in Rs.)	Time for Completion
1	/IITD/EE(CD-III)/2025-26.	**Name of work: Comprehensive Maintenance of Civil, Electrical & Air Conditioning work at Hostels (Boys & Girls) under whole campus at IIT Delhi.**	**9,51,65,733/-**	**19,03,315/-** **(To be returned after submission of PG)**	**Nil**	**12 Months**

Last date and time of submission of financial & Technical bid : - 13/08/2025 up to 3:00 pm (online)
Date and time of opening of Technical bid : - 14/08/2025 at 3.00 pm (office of D.R Store)
Price bids of eligible bidders as per NIT shall be opened at a later date after scrutiny of Technical bids.

1. The successful bidders shall be required to submit a performance guarantee of **5%** of the tendered amount in the form of Bank Guarantee or F.D.R. from a Nationalized/Scheduled Bank within **15 days** of issue of letter of intent before award of work. In case of failure by the Contractor to supply the performance guarantee within the specified period, full earnest money will be forfeited, and the tender shall be treated as void. The performance guarantee shall be initially valid up to the stipulated date of completion plus minimum 6 (six) months beyond that.
2. Contractors who fulfil the following requirements shall be eligible to apply. Joint ventures are not accepted.
   i) Firms/Contractors must have completed satisfactorily one similar work of value not less than **Rs. 7,61,33,000/-** or Two similar works each of value not less than **Rs. 5,71,00,000/-** or three similar works each of value not less than **Rs. 3,80,67,000/-** during last 7 years ending on previous day of last date of submission of bid.
   ii) **Earnest money of Rs. 19,03,315/-** in the form of Banker's cheque or Demand draft or fixed deposit receipt of a schedule bank drawn in favour of **Registrar, I.I.T. Delhi**. No relaxation in EMD will be allowed for MSMEs and MSEs as per CPWD Manual.
3. Similar work shall mean successfully completed work of consisting of **Civil & E & M/ Manpower supply for up-keeping maintenance services only.**
4. The intending bidder must read the terms and conditions of IITD-6 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
5. Information and Instructions for bidders posted on website shall form part of bid document.
6. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website in free of cost.

7. Completion certificates issued by an officer not below the rank of Executive Engineer of similar works completed by the Agency.
8. Work means only work under Government/ Central Public Sector Undertaking / State Public Sector under Central Autonomous bodies/ State Autonomous bodies/ City Development Authority/ Municipal Cooperation of City formed under any act by Central/ State Government and published in Central/ State Gazette.
9. The value of executed work 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 submission of financial bid.
10. IITD is committed to follow the principle of transparency, equity, and competitiveness in public procurement. Before submission of bid each bidder should sign integrity pact at respective places and submit the bid, if duly signed integrity pact is not submitted by bidder such bid shall not be considered.
11. Those contractors not registered on the website mentioned above, are required to get registered beforehand. If needed they can be imparted training on online bidding process as per details available on the website
12. The intending bidder must have valid class-III digital signature to submit the bid.
13. On opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.
14. Contractor can upload documents in the form of JPG format and PDF format.
15. Contractor must ensure to quote rate of each item, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0".Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0" (ZERO).
16. The department reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criterion.
17. In e-Tendering intending bidder can quote his rates in figures only. The rates in words against amount of each item and total is generated automatically. Therefore, the rate quoted by the bidder in figures will be taken as final.
18. The bid can only be submitted after uploading the mandatory scanned documents such as Demand Draft or Pay order or Banker`s Cheque or Deposit at call Receipt or Fixed Deposit Receipts and towards cost of EMD in favour of **Registrar IIT Delhi** to be deposited with http://eprocure.gov.in/eprocure/app / NEFT facility.
19. The physical EMD of the scanned copy of EMD uploaded shall be deposited by the lowest tenderer within a week after opening of financial bid failing which the tender shall be rejected.
20. The following undertaking in this regard shall be up-loaded by the intending bidders:

    "The physical EMD shall be deposited by me / us with the Authority inviting the tender, in case I / we become the lowest tenderer, within a week of the opening of financial bid, otherwise, department may reject the tender and also take action to debar me / us from tendering in any form in IIT Delhi"

21. **Copy of enlistment order and certificate of work experience and other documents as specified in the Press Notice / web notice shall be scanned and up-loaded to the e-Tendering website within the period of bid submission. However, certified / original copy of all the scanned and up-loaded documents as specified in press notice web / notice shall have to be submitted by the lowest bidder only along with physical EMD of the scanned copy of EMD uploaded within a week physically in the office of e-tendering authority and it shall be sole responsibility of lowest bidder.**
22. **Online bid documents submitted by intending bidders shall be opened only of those bidders, who has deposited EMD and other documents scanned and uploaded are found in order.**
23. When bids are invited in two /three stages systems and if it is desired to submit revised financial bid it shall be mandatory to submit revised financial bid. If not submitted then the bid submitted earlier shall become invalid – Not applicable.

24. The bid submitted shall become invalid if:

a. The bidder is found ineligible if he fails to upload documents from 1 to 11 on tender notice page 6.

b. The bidder does not upload all the documents (including GST registration) as stipulated in the bid document including the undertaking about deposition of physical EMD of the scanned copy of EMD uploaded etc.

c. If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the lowest tenderer in the office of tender opening authority.

d. The lowest bidder does not deposit physical EMD within a week from date of financial bid opening of tender.

e. The Bidder does not upload ESI & EPF Registration.

25. Bid validity shall be **120 days** from the last date of submission of bid.

26. Rate of bidders shall be considered inclusive of GST.

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

1. **Demand Draft/Pay order or Banker`s Cheque /Deposit at Call Receipt/FDR / RTGS / NEFT of any Scheduled Bank against EMD.**
2. Enlistment order of contractor.
3. Certificate of work experience.
4. Certificate of Registration for GST and acknowledgement of up to date filed return of GST.
5. **Affidavit on Rs. 100/- Non judicial Stamp paper as per Notice Inviting Tender Condition 1.3 at page 8 of NIT. (Stamp Paper shall be purchased/ notarized between date of publishing and last date of submission of bids beside this NIT/Tender ID and name of work must be mentioned on the affidavit).**
6. Acceptance to execute INTEGRITY PACT.
7. Undertaking as per **'Sl. No. 20 on page No. 5'** on firm's letter head.

   "The physical EMD shall be deposited by me / us with the Authority inviting the tender, in case I / we become the lowest tenderer, within a week of the opening of financial bid, otherwise, department may reject the tender and also take action to debar me / us from tendering in any form in IIT Delhi."
8. ESI & EPF registration.
9. FORM "F" (Duly filled with all required details).
10. **Valid Electrical Contractor License.**
11. In case of Partnership firm if all the papers of tender not signed by all the partners than a power of attorney authorizing the person who has signed the tender paper must be uploaded with the tender documents.

12. Annexure-I (duly filled & signed by the bidders)
13. Annexure-II (duly filled & signed by the bidders)
14. Annexure-III (duly filled & signed by the bidders)
15. Annexure-IV (duly filled & signed by the bidders)
16. Annexure-V (duly filled & signed by the bidders)

Note: - All Documents mentioned S.N. 1 to 11 are mandatory for technically qualifying and documents mentioned 12 to 16 are not mandatory.

Executive Engineer (CD-III),
For & on Behalf of BOG, IIT Delhi
Hauz Khas, New Delhi-110016.

Budget Head: Operation And Maintenance Of Building Services/31.06.30 (2021/007/0471)

Copy to: -

1. **Institute Engineer**
2. **Executive Engineer (ED-I).**
3. **AEE-in-charge AC Division**
4. **A.R (E & W).**
5. **D.R. (A/Cs) – for opening of tenders on 14/08/2025 at 3:00 PM in the office of D.R. Store**
6. **Notice Boards.**
7. **Office Copy**
8. **Web site Administrator, IITD**
9. **NIT: - Publicity on Website on Institute as well as on CPP portal http://eprocure.gov.in may be ensured as per instruction issued.**
10. **E-tendering Web.** http://eprocure.gov.in/eprocure/app or wwww.iitd.ac.in

INDIAN INSTITUTE OF TECHNOLOGY, DELHI
HAUZ KHAS: NEW DELHI – 110016
IITD-6 FOR e-TENDERING AND TERMS & CONDITIONS

An item rate tender is invited on behalf of the Board of Governors from contractors/firms engaged in the field of Civil work in the appropriate category for the **work** as per the tender notice.

1. The enlistment of the contractors should be valid on the last date of submission of tenders. In case the last date of submission of tender is extended, the enlistment of the contractor should be valid on the original date of submission of tenders.

1.1 The work is estimated to cost **as per the tender notice.** This estimate, however, is given merely as a rough guide.

1.2 Details of criteria for eligibility As indicated in "INFORMATION AND INSTRUCTIONS FOR CONTRACTORS FOR e-TENDERING FORMING PART OF NIT AND TO BE POSTED ON WEBSITE"

1.3 To become eligible for the issue of a tender, the tenderer shall have to furnish an affidavit as under:-

I/We undertake and confirm that eligible similar works(s) has/have not been executed through another contractor on a back-to-back basis. Further, if such a violation comes to the notice of the Department, then I/we shall be debarred from tendering in IITD in the future forever. Also, if such a violation comes to the notice of the Department before the date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee. (Scanned copy to be uploaded at the time of submission of bid)

2. Agreement shall be drawn with the successful bidders on the prescribed Form No. IITD-8 (or other Standard Form as mentioned), which is available as a Govt of India Publication. Bidders shall quote their rates as per various terms and conditions of the said form, which will form part of the agreement.

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

4. **The site for the work shall be made available in parts as and when site will be available.**

5. After submission of the bid, the contractor can resubmit a revised bid any number of times, but before the last time and date of submission of the tender as notified.

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

7. If it is desired to submit a revised financial bid, then it shall be mandatory to submit a revised financial bid. If not submitted, then the tender submitted earlier shall become invalid.

8. Earnest Money in the form of Demand Draft or Pay order or Banker`s Cheque or Deposit at Call Receipt (drawn in favour of Registrar IIT Delhi, Hauz Khas, New Delhi) as specified of any Scheduled/ Nationalized Bank and shall be scanned & uploaded to the e-tendering website within the period of tender submission or through RTGS/ NEFT with UTR details and original should be deposited by lowest bidder within a week after the opening of financial bid in office of **Executive Engineer (CD-III), IIT Delhi, Hauz Khas, New Delhi.**

A part of earnest money is acceptable in the form of a bank guarantee, also. In such a case, 50% of earnest money or Rs. 20 lakh, whichever is less, will have to be deposited in the shape prescribed above, and the balance in the form of a Bank Guarantee of any scheduled bank, which is to be scanned and uploaded by the intending bidders.

Interested contractors who wish to participate in the bid have also to make the following payments in the form of a Demand Draft/Pay order or Banker's Cheque of any Scheduled Bank and to be scanned and uploaded to the e-Tendering website within the period of bid submission:

http://eprocure.gov.in/eprocure/app.

9. The bid submitted shall become invalid if:

(i) The bidders are found not eligible.

(ii) The bidders do not upload all the documents (including GST registration/ **other documents as per the Tender Notice**) as stipulated in the bid document.

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

(iv) The lowest bidder does not deposit physical EMD within a week of the opening of the tender.

10. The time & date of submission & opening of financial bids of contractors qualifying the **criteria as per the Tender Notice** shall be communicated to them at a later date.

11. The contractor whose bid is accepted, will be required to furnish performance guarantee of 5% (Five Percent) of the tendered and accepted of the bided amount within the period specified in Schedule F. This guarantee shall be in the form of cash (in case guarantee amount is less than Rs. 10000/-) or Deposit at Call receipt of any scheduled bank/Banker's cheque of any scheduled bank/ Demand Draft of any scheduled bank/Pay order of any Scheduled Bank of any scheduled bank (in case guarantee amount is less than Rs. 1,00,000/-) or Government Securities or Fixed Deposit Receipts or irrevocable Bank Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F', including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor.

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

13. The competent authority on behalf of the Board of Governors does not bind itself to accept the lowest or any other tender and reserves to itself the authority to reject any or all the tenders received without the assignment of any reason. All tenders 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.

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

15. The competent authority on behalf of Board of Governors reserves to himself the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rate quoted.

16. The contractor shall not be permitted to tender for works in the IITD responsible for award and execution of contracts, in which his near relative is posted a Divisional Accountant or as an officer in any capacity between the grades of Institute Engineer and Junior Engineer (both inclusive). He 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 gazetted officer in the Central Public Works Department or in the Ministry of Urban Development. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department.

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

Government of India as afore said before submission of the tender or engagement in the contractor's service.

18. The tender for the works shall remain open for acceptance for a period of **One Twenty (120)** days from date of opening of technical bid, if any tenderer withdraws his tender before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the tender which are not acceptable to the department, then the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further, the tenderer shall not be allowed to participate in the retendering process of the work.

19. This notice inviting Tender shall form a part of the contract document. The successful tenderer/contractor, on acceptance of his tender by the Accepting Authority, shall within 10 days from the stipulated date of start of the work, sign the contract consisting of:-

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

b) Standard IITD Form - 8 or other Standard IITD Form as mentioned.

20. In case any discrepancy is noticed between the documents as uploaded at the time of submission of the bid online and hard copies as submitted physically in the office of the Executive Engineer, then the bid submitted shall become invalid.

Executive Engineer (CD-III)
IIT Delhi, Hauz Khas,
New Delhi – 110016

SPECIAL CONDITIONS FOR ASSOCIATION OF SPECIALIZED AGENCIES

1. The main contractor shall have to associate other specialised agency(s) (Joint ventures are not accepted) for execution of each of these specialized work(s), who fulfils the eligibility criteria as defined below, within 10 days of issue of LOI or actual date of start of work, whichever is earlier, otherwise department may take action as per clause-3 of the applicable GCC of the agreement & may forfeit performance guarantee absolutely.
2. The agency shall submit the similar work experience documents in respect of experience of having satisfactory completed similar works as defined below during last seven years.

S. No.	**Eligibility Criteria for approval of specialized agency**
Civil Works	
1.	**Water Proofing Work** (Estimated Cost Rs. 18,76,437/-)
	Three similar works each costing not less than Rs. 7.51 Lakh or Two similar works each costing not less than Rs. 11.26 Lakh or One similar work of aggregate cost not less than Rs. 15.02 Lakh **Similar work shall mean works of "Water Proofing"**

3. The Main Contractor must associate with the respective LIFT OEM for the execution of the comprehensive Annual Maintenance of the Lifts. The copy of the agreement between the Main Contractor and the respective lift OEM is to be submitted in the O/o EE (ED-I) before the start of the work.
4. As per the conformity with statutory acts, rules, regulations, standards, and safety codes, the Installation shall be carried out in conformity with the local lifts acts and rules, and getting the necessary lift license from the concerned Government Department/ authority shall be in the scope of the Contractor.
5. The Main Contractor must associate with the respective RO Plant OEM for the execution of the comprehensive Annual Maintenance of the RO Plant and all associated works. The copy of the agreement between the Main Contractor and the OEM to be submitted in the O/o EE (ED-I) before the start of the work.
6. The Main Contractor must associate with the respective Solar Water Heater System OEM for the execution of the comprehensive Annual Maintenance of the Solar Water Heater System. The copy of agreement between the Main Contractor and respective Solar Water Heater System OEM to be submitted in the O/o EE (ED-I) before the start of the work.
7. The value of executed works shall be brought to the current costing level by enhancing the actual value of work at a simple rate of 7% per annum.
8. However, the Main Contractor shall also be eligible to carry out himself any or all of the above specialized works without associating with any specialized agency, provided they fulfill the prescribed eligibility criteria for each of the above specialized work(s).
9. The main contractor shall have to submit credentials such as self-attested copies of Certificates of Work Experience/Completion issued by the client department, clearly indicating 1. Name of work 2. Scope of Work 3. Agreement No. 4. Estimated Cost 5. Tendered Cost 6. Final Value of Work Done 7. Date of Start 8. Stipulated date of Completion 9. Actual date of completion 10. Nature of the Work (In case some of above said details are not mentioned in the Completion certificate, the firm shall attach sample proof in support of the above details), self-attested copy of a valid Electrical contractor license, GST registration of the proposed associated specialized agencies for verification (if required) and for approval of the department as per eligibility requirement mentioned above as per **FORM-II.** Main contractor shall also be required to furnish either a copy of applicable licenses/registrations or proof of applying for obtaining labour licenses, registration with EPFO, ESIC, and BOCW Welfare Board of proposed associated specialized agencies, along with the above documents.
10. Consent letter of such selected associated specialized agencies for association shall also be enclosed in the prescribed format as per **FORM-I,** along with documents mentioned above**.**

11. After approval of associated specialized agencies by the Engineer-in-charge, the main contractor will submit MoU signed with the Associated Specialized Agency as per **FORM-III** in the form of an affidavit on stamp paper duly attested by notary in original within 5 (Five) Days after issue of approval letter (for Associate Specialized Agency). The MoU shall be signed by both parties, i.e. Main Contractor as the 1st party and the Associated Specialized Agency as the 2nd party, independently for all specialized work(s).

12. All technical discussions during the currency of the contract shall be attended by the Associated Specialized Agencies and the Main Contractor. Commercial/Technical submissions for the specialized work(s) shall be signed and submitted by the Associate Specialized Agencies along with the Main Contractor.

13. The Associated Specialized Agencies and the Main Contractor shall attend the site during inspection of the work by the Engineer-in-Charge or higher authority.

    The Main Contractor shall be entirely responsible and answerable for all the works done by his Associated Specialized Agency regarding their quality, adherence to the laid down specification, terms and conditions, warranty/guarantee etc as per the agreement and he shall be liable to bear any compensation that may be levied by the department under any of the clauses of the agreement.

14. In the event of the concerned Associated Specialized Agency not performing satisfactorily or failure to complete the specialized works(s), the Main Contractor on written directions of the Engineer-in-charge, shall remove the Associated Specialized Agency deployed on the work and shall submit name of new associated specialized Agency as per eligibility criteria mentioned in the NIT to execute the left over specialized work(s) without any loss of time after completion of all formalities mentioned as above**.**

    Also, if the Main Contractor wants to change the Associated Specialized Agency during the currency of the contract, he shall submit the name of the new Associated Specialized Agency as per the eligibility criteria mentioned in the NIT to execute the left-over specialized work(s) after completion of all formalities mentioned as above**.**

    The Main Contractor shall be responsible and liable for the proper and complete execution of all works, including specialized work(s), and ensure coordination and completion of all associated specialized works.

15. Running payment for the work shall be made to the Main Contractor. In case Main Contractor fails to make the payment to the Associated Specialized Agency(s) by him within 15 days of receipt of each running account payment then on the written complaint of any Associated Specialized Agency(s) for such work, Engineer-in-Charge of minor component shall serve the show cause to Main Contractor and after considering the reply of the same he may make the payment directly to the concerned Associated Specialized Agency(s) for the work as per the terms & conditions of the agreement/MoU drawn between Main Contractor and Associated Specialized Agency(s) fixed by him, if reply of main contractor either not received or found unsatisfactory. Such payment made to the Associated Specialized Agency(s) shall be recovered by the Engineer-in-Charge of the minor component from the next RA/final bill due to the Main Contractor, as the case may be.

Executive Engineer (CD-III)
IIT Delhi, Hauz Khas,
New Delhi – 110016

FORM -I

CONSENT LETTER FROM ELIGIBLE ASSOCIATE AGENCY OF SPECIALIZED WORK(S)

Name of work: **"Comprehensive Maintenance of Civil, Electrical & Air Conditioning work at Hostels (Boys & Girls) under whole campus at IIT Delhi."**

1. I / We hereby give my consent to associate with M/s ……, for execution of the work of ……..... (Mention specialized work(s)).
2. I / We will execute the work as per specifications and conditions of the agreement and as per directions of the Engineer–in-Charge for the corresponding specialized work(s) till the completion of the work.
3. I / We will be responsible for necessary action to handover the installations and for rectification of defects and repair during the maintenance / warranty period.
4. Also I / We will employ full time technically qualified Engineer / supervisor for the specialized work(s) component of the work as required for the work and list of same shall be made available to Engineer-in-Charge. I / We will attend inspection of officers of the department as and when required.
5. I /we hereby undertake that I / we will engage OEM / authorise service dealers for the works.

Date:

Signature with date of Main Agency/Contractor

Address :

Signature with date of Associate Specialized Agency

Address :

1. Witness with address
   (From Main Contractor side)

2. Witness with address
   (From Associated Agency side)

FORM –II

PROPOSAL FOR ELIGIBLE ASSOCIATING AGENCIES FOR SPECIALIZED WORK(S)

I/we hereby propose the following agencies to be associated as details given below for executing the corresponding specialized work(s). Their consent letter are also attached as per **FORM-I**

Sl.N.	Name of Associated Specialized Agency	Category and class of CPWD registration/ Enlistment (if any)	Registration /Enlistment copy/ completion Certificates attached	Validity of registration/ Enlistment	Value of Gross Work Done of Specialized work	Experience Certificate attached (Yes/No)	Consent letter attached (Yes/No)
Sub Work – I							
1							
2							
3							
Sub Work – II							
1							
2							
3							
Sub Work – III							
1							
2							
3							

Signature of Main Contractor

FORM-III

MEMORANDUM OF UNDERSTANDING [MoU] BETWEEN

1] M/S [Name of the firm/agency with full address]
Enlistment Status
Valid Up to:
[Henceforth called the Main Contractor]

and

2] M/S [Name of the firm/agency with full address]
Enlistment Status
Valid Up to:
[Henceforth, called Associated Specialized Agency]

Specialized work: _____

For the execution of Specialized Work(s) in **"Comprehensive Maintenance of Civil, Electrical & Air Conditioning work at Hostels (Boys & Girls) under the whole campus at IIT Delhi,"** as per schedule, specifications, terms and conditions of the agreement.

We state that the MoU between us will be treated as an agreement and has legality as per the Indian Contract Act [amended up to date], and the department can enforce all the terms and conditions of the agreement for the execution of the above work. Both of us shall be responsible for the execution of work as per the agreement to the extent this MOU allows. Both parties shall be paid consequent to the execution as per the agreement to the extent this MoU permits. In case of any dispute, either of us will go for mediation by the EE (C) / EE (E), AE.E (AC), IIT Delhi. Any of us may appeal against the mediation to the **Institute Engineer, IIT Delhi**. His decision shall be final and binding on both of us.

We have agreed as under:

1) The Associated Specialized Agency will execute all specialized work(s) in the wholesome manner as per the terms and conditions of the agreement and as per the direction of the Engineer-in-charge.
2) That the Associated Specialized Agency has gone through the contract and has understood the scope of work required for the purpose of executing the specialized work(s).
3) All the machinery and equipment, tools and plants, special T&P required for execution of the specialized work(s), as per agreement, shall be the responsibility of the Associated Specialized Agency.
4) The site staff required for the specialized work(s) shall be arranged by the Associated Specialized Agency as per the terms and conditions of the agreement.
5) Site order book maintained for the said work shall be signed by the authorized representative of the Main Contractor as well as the associated specialized Agency.
6) All the correspondence regarding the execution of the specialized work(s) shall be done by the Department with the Associated Specialized Agency, with a copy to the Main Contractor. In case of non-compliance with the provisions of the agreement, the Main Contractor, as well as the Associated Agency, shall be responsible. The action under clauses 2 and 3 shall be initiated and taken against the Main Contractor.
7) In case the main contractor has not made the payment to the associate contractor within 15 days of receipt of each running bill payment action under clause 7 may be taken.

Signature of Main Contractor	Signature of Associated Specialized Agency
Date:	Date:
Place:	Place:

Notice Inviting Tender

INDIAN INSTITUTE OF TECHNOLOGY DELHI
HAUZ KHAS, NEW DELHI-110016

Terms & Conditions

Indian Institute of Technology Delhi is in the process of purchasing following item(s) as per details as given as under.

Details of the item	**As per Tender Notice**
Earnest Money Deposit to be submitted	**Rs. 19,03,315/-**
Warranty	**As per Tender Notice, NIT & IITD form 8**
Performance security	**As per Tender Notice, NIT & IITD form 8**

Tender Documents may be downloaded from Central Public Procurement Portal http://eprocure.gov.in/eprocure/app. Aspiring Bidders who have not enrolled / registered in e-procurement should enrol / register before participating through the website http://eprocure.gov.in/eprocure/app . The portal enrolment is free of cost. Bidders are advised to go through instructions provided at 'Instructions for online Bid Submission.

Tenderers can access tender documents on the website (For searching in the NIC site, kindly go to Tender Search option and type 'IIT'. Thereafter, Click on "GO" button to view all IIT Delhi tenders). Select the appropriate tender and fill them with all relevant information and submit the completed tender document online on the website http://eprocure.gov.in/eprocure/app as per the schedule given in the next page.

No manual bids will be accepted. All quotes (both Technical and Financial should be submitted in the E-procurement portal).

Schedule

Name of Organization		Indian Institute of Technology, Delhi
Tender Type (Open/Limited/EOI/Auction/Single)		Open
Tender Category (Services/Goods/works)		Works
Type/Form of Contract (Work/Supply/ Auction/Service/Buy/Empanelment/ Sell)		Works
Product Category (Civil Works/Electrical Works/Fleet Management/ Computer Systems)		Civil works/ Electrical Works
Source of Fund (Institute/Project)		**Operation And Maintenance Of Building Services/31.06.30 (2021/007/0471)**
Is Multi Currency Allowed		No
Date of Issue/Publishing		23/07/2025 (17.00 Hrs)
Document Download/Sale Start Date		23/07/2025 (17.00 Hrs)
Document Download/Sale End Date		13/08/2025 (15.00 Hrs)
Date for Pre-Bid Conference		**Nil**
Venue of Pre-Bid Conference		---
Last Date and Time for Uploading of Bids		13/08/2025 (15.00 Hrs)
Date and Time of Opening of Technical Bids		14/08/2025 (15.00 Hrs)
Tender Fee	**Rs. Nil**	(To be paid through RTGS/NEFT. IIT Delhi Bank details are as under: Name of the Bank A/C : Registrar IIT Delhi SBI A/C No. : 10773572622 Name of the Bank : State Bank of India, IIT Delhi, Hauz Khas, New Delhi-110016 IFSC Code : SBIN0001077 MICR Code : 110002156 Swift No. : SBININBB547 (This is mandatory that UTR Number is provided in the on-line quotation/bid. (Kindly refer to the UTR Column of the Declaration Sheet at Annexure-II) **or as per NIT/ Tender notice**
EMD	**Rs. 19,03,315/- (To be returned after submission of PG)**	
No. of Covers (1/2/3/4)		**02**
Bid Validity days (180/120/90/75/60/30)		**120 days (From the last date of submission of bid)**
Address for Communication		**Office of the Executive Engineer (Civil Division-III), Room No- MZ-137, Main Building, IIT Delhi, Hauz Khas, New Delhi-110016**
Contact No.		**011-26596237**
Fax No.		**Nil**
Email Address		**a26516@admin.iitd.ac.in**

Instructions for Online Bid Submission:

As per the directives of Department of Expenditure, this tender document has been published on the Central Public Procurement Portal (URL:http://eprocure.gov.in/eprocure/app). The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at:

http://eprocure.gov.in/eprocure/app

REGISTRATION

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

SEARCHING FOR TENDER DOCUMENTS

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

PREPARATION OF BIDS

1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.

3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF formats. Bid documents may be scanned with 100 dpi with black and white option.

4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

SUBMISSION OF BIDS

1) Bidder should log into the site well in advance for bid submission so that he/she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.

2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.

3) Bidder has to select the payment option as "on-line" to pay the tender fee / EMD as applicable and enter details of the instrument. Whenever, EMD / Tender fees is sought, bidders need to pay the tender fee and EMD separately on-line through RTGS (Refer to Schedule, Page No.2).

4) A standard BoQ format has been provided with the tender document to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.

   OR

   In some cases Financial Bids can be submitted in PDF format as well (in lieu of BOQ).

5) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.

6) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done.

7) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.

8) Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.

9) Kindly add scanned PDF of all relevant documents in a single PDF file of compliance sheet.

ASSISTANCE TO BIDDERS

1. Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.

2. Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk. The contact number for the helpdesk is 1800 233 7315.

General Instructions to the Bidders

1) The tenders will be received online through portal http://eprocure.gov.in/eprocure/app . In the Technical Bids, the bidders are required to upload all the documents in .pdf format.

2) Possession of a Valid Class II/III Digital Signature Certificate (DSC) in the form of smart card/e-token in the company's name is a prerequisite for registration and participating in the bid submission activities through https://eprocure.gov.in/eprocure/app. Digital Signature Certificates can be obtained from the authorized certifying agencies, details of which are available in the web site https://eprocure.gov.in/eprocure/app under the link "Information about DSC".

3) Tenderer are advised to follow the instructions provided in the 'Instructions to the Tenderer for the e-submission of the bids online through the Central Public Procurement Portal for e-Procurement at https://eprocure.gov.in/eprocure/app.

Terms & Conditions Details

S.No.	Specification
1.	**Due date**: The tender has to be submitted on-line before the due date. The offers received after the due date and time will not be considered. No manual bids will be considered.
2.	**Preparation of Bids**: The offer/bid should be submitted in two bid systems (i.e.) Technical bid and financial bid. The technical bid should consist of all technical details along with commercial terms and conditions. Financial bid should indicate item wise price for the items mentioned in the technical bid in the given format i.e BOQ_XXXX. OR Financial Bids to be submitted in Excel. The Technical bid and the financial bid should be submitted Online.
3.	**EMD (if applicable)**: **As per NIT**
4.	**Refund of EMD :- As per NIT**
5.	**Opening of the tender**: **As per Tender Notice, NIT & IITD form 8**
6.	**Acceptance/ Rejection of bids:** The competent authority of IIT Delhi reserves the right to reject any or all offers without assigning any reason.
7.	**Pre-qualification criteria: - Mentioned in Tender notice**
8.	**Performance Security**:-**Mentioned in Tender notice**
9.	**Force Majeure :- As per IITD form 8**
10.	**Risk & Cost Clause** : **As per IITD form 8**
11.	**Delivery and Documents: As per Tender Notice & NIT & IITD form 8**
12.	**Delayed delivery: As per Tender Notice & NIT & IITD form 8**
13.	**Prices**: **As per Tender Notice & NIT & IITD form 8**
14.	**Progress of Work** :**As per Tender Notice & NIT & IITD form 8**
15.	**Inspection and Tests: As per Tender Notice & NIT & IITD form 8**
16.	**Resolution of Disputes**: **As per Tender Notice & NIT & IITD form 8**
17.	**Applicable Law: As per Tender Notice & NIT & IITD form 8**
18.	**Supplier Integrity : As per Tender Notice & NIT & IITD form 8**
19.	**Training : As per Tender Notice & NIT & IITD form 8**
20.	**Installation & Demonstration : As per Tender Notice & NIT & IITD form 8**
21.	**Incidental services: As per Tender Notice & NIT & IITD form 8**
22.	**Defect liability Period** : **As per Tender Notice & NIT & IITD form 8**
23.	**Governing Language : As per Tender Notice & NIT & IITD form 8**
24.	**Applicable Law : As per Tender Notice & NIT & IITD form 8**
25.	**Notices : As per Tender Notice & NIT & IITD form 8**
26.	**Taxes : As per Tender Notice & NIT & IITD form 8**
27.	**Termination for Default : As per Tender Notice & NIT & IITD form 8**
28.	**Disputes and Jurisdiction**: **As per Tender Notice & NIT & IITD form 8**
29.	**Completion certificate**: **As per Tender Notice & NIT & IITD form 8**

Bid Submission

Online Bid Submission:

The Online bids (complete in all respect) must be uploaded online in two Envelops as explained below:-

Bid Document – 1 (Following documents to be provided as single PDF file)			
Sl. No.	**Documents**	**Content**	**File Types**
1.	Technical Bid	Compliance Sheet as per Annexure – I	.PDF
2.		Organization Declaration Sheet as per Annexure – II	.PDF
3.		List of organizations/ clients where the same products have been supplied (in last two years) along with their contact number(s). (Annexure-III)	.PDF
4.		Technical supporting documents in support of all claims made at Annexure-I.	.PDF
Bid Document – 2			
Sl. No.	TYPES	Content	
1.	Financial Bid	Price bid should be submitted in Excel format.	.xls

INDIAN INSTITUTE OF TECHNOLOGY
HAUZ KHAS, NEW DELHI - 110016

NOTICE INVITING TENDER

Item rate tender is invited on behalf of The Board of Governors, I.I.T. Delhi, Hauz Khas, New Delhi - 16 from approved and eligible contractors of **CPWD** and those of appropriate class of **M.E.S., BSNL and Railway** for **Composite/ Civil (B/B&R)/Civil works** for the work of **Comprehensive Maintenance of Civil, Electrical & Air Conditioning work at Hostels (Boys & Girls) under whole campus at IIT Delhi.**

1. The enlistment of the contractors should be valid on the last date of submission of tenders.
In case only the last date of submission of tender is extended, the enlistment of contractor should be valid on the original date of submission of tenders.

1.1 The work is estimated to cost **Rs. 9,51,65,733/-** This estimate, however, is given merely as a rough guide.

1.1.1 The authority competent to approve NIT for the combined cost and belonging to the major discipline will consolidate NITs for calling the bids. He will also nominate Division which will deal with all matters relating to the invitation of bids.
For composite bid, besides indicating the combined estimated cost put to tender, should clearly indicates the estimated cost of each component separately. The eligibility of bidders will correspond to the combined estimated cost of different components put to bid.

1.2 Intending bidder is eligible to submit the bid provided he has definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority, of having satisfactorily completed similar works of magnitude specified below:-

Criteria of eligibility for submission of bid documents.

1.2.1 Criteria of eligibility for CPWD as well as non-CPWD contractors.

Three similar works each of value not less than 40% of estimated cost or two similar work each of value not less than 60% of estimated cost or one similar work of value not less than 80% of estimated cost during last 7 years ending on previous day of last day of submission of bids.

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 during last 7 years ending on previous day of last day of submission of bids.

Similar work shall means successfully completed work of consisting of **Civil & E & M/ Manpower supply for up-keeping maintenance services only**.

1.2.2 To become eligible for issue of bid, the bidders shall have to furnish an affidavit as under :-

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

2. Agreement shall be drawn with the successful bidders on prescribed Form No. I.I.T.D 7/8 which is available as I.I.T.D. Publication. Bidders shall quote their rates as per various terms and conditions of the said form which will form part of the agreement.
3. The time allowed for carrying out the work will be **as per Tender Notice** from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.
4. **The site for the work shall be made available in parts as and when site will be available**.
5. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents except Standard General Conditions of Contract Form can be seen from the web Site **www.iitd.ac.in or e-procure.gov.in.**
6. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of tender as notified.
7. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of tender as notified.
8. If it is desired to submit revised financial bid then it shall be mandatory to submit revised financial bid. If not submitted then the tender submitted earlier shall become invalid.

   Copy of Enlistment Order and certificate of work experience and other documents as specified in the press notice / web notice shall be scanned and uploaded to the tender website within the period of bid submission. However, certified copy of all the scanned and uploaded documents as specified in press notice / web notice shall have to be submitted by the lowest bidder in the office of tendering authority.

   Online bid documents submitted by intending bidders shall be opened only of those bidders, who has deposited tender online fees with and earnest money deposit and other documents scanned and uploaded are found in order.

   The bid submitted shall become invalid &Tender fees shall not be refunded if:

   a. The bidder is found ineligible if he fails to upload documents from 1 to 9 on tender notice page 6.
   b. The bidder does not upload all the documents (including GST registration) as stipulated in the bid document including the undertaking about deposition of physical EMD of the scanned copy of EMD uploaded etc.
   c. If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the lowest tenderer in the office of tender opening authority.

9. The contractor whose bid is accepted will be required to furnish **performance guarantee of 5% (Five Percent)** of the bid amount within the period specified in Schedule F. This guarantee shall be in the form of cash (in case guarantee amount is less than Rs. 10000/-) or Deposit at Call receipt of any scheduled bank/Banker's cheque of any scheduled bank/ Demand Draft of any scheduled bank/Pay order of any Scheduled Bank (in case guarantee amount is less than Rs.1,00,000/-) or Government Securities or Fixed Deposit Receipts or irrevocable Bank Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F' including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor.

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

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

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

13. The competent authority on behalf of Board of Governors reserves to himself the right of accepting the whole or any part of the bid and the bidder shall be bound to perform the same at the rate quoted.

14. The contractor shall not be permitted to bid for works in the IITD responsible for award and execution of contracts, in which his near relative is posted a Divisional Accountant or as an officer in any capacity between the grades of Institute Engineer and Junior Engineer (both inclusive). He 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 gazetted officer in the IIT Delhi. Any breach of this condition by the contractor would render him liable to be debarred from bidding process in future in IIT Delhi.

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

16. The bid for the works shall remain open for acceptance for a period of **One Twenty (120)** days from date of opening of technical bid. If any bidder withdraws his bid before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the bid which are not acceptable to the department, then the IIT Delhi shall, without prejudice to any other right or remedy, the bidder shall debarred for tendering in IIT Delhi for a period of one year.

17. This notice inviting bid shall form a part of the contract document. The successful bidder / contractor, on acceptance of his bid by the Accepting Authority shall within 10 days from the stipulated date of start of the work, sign the contract consisting of:-

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

(b) Standard IITD Form –7/8 or other Standard IITD Form as mentioned.

18. In case any discrepancy is noticed between the documents as uploaded at the time of submission of the bid online and hard copies as submitted physically in the office of Executive Engineer, then the bid submitted shall become invalid and the IIT Delhi shall without prejudice to any other right or remedy, the bidder shall debarred for tendering in IIT Delhi for a period of one year.

19. For Composite Bid

19.1 The **Executive Engineer [CD-III]** shall be Engineer-in-charge of the major component and will call the bids for the composite work, Earnest Money will be fixed with respect of the combined estimate cost put to tender for the composite bid.

19.2 **The bid document will include following three components: -**

Part A- IITD-6, IITD-7 including schedule A to F for the major component of the work. Standard General Conditions of contract for CPWD 2023 as corrected/modified upto date.

Part B – General/Specific conditions, specifications and schedule of quantities applicable to major component of the work.

Part C :- Schedule A to F for minor component of the work I.E. (Institute Engineer/EE Engineer-in-charge of major component shall also be competent authority under clause 2 and clause 5 as mentioned as schedule A to F to major components), General/ specific conditions, specifications and schedule of quantities applicable to minor component(s) of the work.

19.3 The bidder must associate himself, with experienced agencies of the appropriate class eligible of bid for each of the minor component individually.

19.4 The eligible bidders shall quote rated for all items of major component as well as for all items of minor component of work.

19.5 After acceptance of the bid by Competent authority, the EE [CD-III] i.e Engineer in charge of the work shall issue letter of award on behalf of the Board of Governors, IIT Delhi, after the work is awarded, the main contractor will have to enter into one agreement with EE [CD-III] and has also to sign two or more copies of agreement. On such signed set of agreement shall be handed over to EE (Elect) in charge of Electrical component & AEE-in-charge, AC Division for Airconditioning Component. EE of major component will operate part A and EE(Elect) & **AEE-in-charge, AC Division** in charge of minor component shall operate part B along with Part A of the agreement.

19.6 Entire work under the scope of composite bid including major and all minor components shall be executed under one agreement.

19.7 Security Deposit will be worked out from each running /final bill on tender cost of the respective component of works.

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

19.9 In case the main contractor to change any of the above agency/agencies during the operation of the contract, he shall obtain prior approval of Engineer-in-charge of minor component. The new agency/agencies shall also have agency, he can direct the contractor to change the agency executing such items of work and this shall be binding on the contractor.

19.10 The main contractor has to enter into agreement with contractor(s) associated by him for execution of minor components(s) in case the main contractor does not have capability to execute the minor component work. Copy of such agreement shall be submitted to EE [CD-III], EE(E) **& AEE-in-Charge, AC in charge of major and minor components**. In case of change of associate contractor, the main contractor has to enter into agreement with the new contractor associated by him.

19.11 Running payment for the major component shall be processed by EE [CD-III] of major discipline to the main contractor. Running payment of minor components shall be made by **EE [E] for Electrical and AEE-in-charge, AC Division, for Air Conditioning discipline of minor component directly to the main contractor.**

19.12A The composite work shall be treated as completed when all the components of the work are complete and certified. The completion certificate of the composite work shall be recorded by Engineers-in-charge of major component after record of completion certificate of all other components.

19.12B Final bill of whole work shall be finalized and paid by the EE [CD-III] of major component. EE (E) & AEE-in-charge, AC in charge of minor component(s) respectively will prepare and pass the final bill for their respective component of work and pass on the same to the EE (CD-III) of major component for including in the final bill for composite contractor.

INTEGRITY PACT e-TENDERING	I.I.T.D

To,

……..,
……..,
……..

Subject: - NIT No. /IITD/EE(CD-III)/2025-26 for the work of Comprehensive Maintenance of Civil, Electrical & Air Conditioning work at Hostels (Boys & Girls) under whole campus at IIT Delhi.

Dear Sir,

It is here by declared that I.I.T.D is committed to follow the principle of transparency, equity, and competitiveness in public procurement.

The subject Notice Inviting Tender (NIT) is an invitation to offer made on the condition that the Bidder will sign the integrity Agreement, which is an integral part of tender/bid documents, failing which the tenderer / bidder will stand disqualified from the tendering process and the bid of the bidder would be summarily rejected.

This declaration shall form part and parcel of the Integrity Agreement and signing of the same shall be deemed as acceptance and signing of the Integrity Agreement on behalf of the I.I.T.D.

Yours faithfully

Executive Engineer (CD-III)

ACCEPTANCE TO EXECUTE INTEGRITY PACT	I.I.T.D

(To be signed by bidder and upload the scanned copy)

To,

Executive Engineer (CD-III),
IIT Delhi, Hauz Khas,
New Delhi – 110016.

Subject:- Submission of Bid for the of Comprehensive Maintenance of Civil, Electrical & Air Conditioning work at Hostels (Boys & Girls) under whole campus at IIT Delhi..

Dear Sir,

I/We acknowledge that I.I.T.D is committed to follow the principles thereof as enumerated in the Integrity Agreement enclosed with the tender/bid document.

I/We agree that the Notice Inviting Tender (NIT) is an invitation to offer made on the condition that I/We will sign the enclosed integrity Agreement, which is an integral part of tender / bid documents, failing which I/We will stand disqualified from the tendering process. I/We acknowledge that THE MAKING OF THE BID SHALL BE REGARDED AS AN UNCONDITIONAL AND ABSOLUTE ACCEPTANCE of this condition of the NIT.

I/We confirm acceptance and compliance with the Integrity Agreement in letter and spirit and further agree that execution of the said Integrity Agreement shall be separate and distinct from the main contract, which will come into existence when tender/bid is finally accepted by I.I.T.D. I/We acknowledge and accept the duration of the Integrity Agreement, which shall be in the line with Article 1 of the enclosed Integrity Agreement.

I/We acknowledge that in the event of my/our failure to sign and accept the Integrity Agreement, while submitting the tender/bid, I.I.T.D shall have unqualified, absolute and unfettered right to disqualify the tender / bidder and reject the tender/bid is accordance with terms and conditions of the tender/bid.

Yours faithfully

(Duly authorized signatory of the Bidder)

INTEGRITY PACT e-TENDERING	I.I.T.D

To be signed by the bidder and same signatory competent / authorized to

sign the relevant contract on behalf of I.I.T.D.

INTEGRITY AGREEMENT

This Integrity Agreement is made at ..... on this ..... day of..... 20.....

BETWEEN

The Board of Governors, I.I.T. Delhi, Hauz Khas, New Delhi - 16 represented through Executive Engineer (CD-III) IIT Delhi.

....., (Hereinafter referred as the(Address of Division)

'**Principal/Owner**', which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

AND

.....(Name and Address of the Individual/firm/Company)through ..... (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)**Preamble**

WHEREAS the Principal / Owner has floated the Tender (NIT No. .....) (Hereinafter referred to as "**Tender/Bid**") and intends to award, under laid down organizational procedure, contract for …….....

(Name of work)hereinafter referred to as the "**Contract**".

AND WHEREAS the Principal/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:

Article 1: Commitment of the Principal/Owner

1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:

   (a) No employee of the Principal/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 Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/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 Principal/Owner shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.

2) If the Principal/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 is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

Article 2: Commitment of the Bidder(s)/Contractor(s)

1) It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the Government / Department 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.

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 Principal/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. 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 Principal/Owner aspart 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 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 participate 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.

3) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

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 the Government interests**.

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).

Article 3: Consequences of Breach

Without prejudice to any rights that may be available to the Principal/Owner under law or the Contract or its established policies and laid down procedures, the Principal/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 Principal/Owner's absolute right:

1) If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/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 Principal/Owner. **Such exclusion may be forever or for a limited period as decided by the Principal/Owner**.

2) **Forfeiture of EMD/Performance Guarantee/Security Deposit**: If the Principal/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.

3) **Criminal Liability**: If the Principal/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 Principal/Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

Article 4: Previous Transgression

1) The Bidder declares that no previous transgressions occurred in the last 5 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.

2) 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 Principal/ Owner.

3) 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 Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

Article 5: Equal Treatment of all Bidders/Contractors/Subcontractors

1) 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 Sub-contractors/sub-vendors.

2) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.

3) The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

Article 6- Duration of the Pact

This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor 09 Months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded.

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 Competent Authority, I.I.T.D.

Article 7- Other Provisions

1) This Pact is subject to Indian Law, place of performance and jurisdiction is the Headquarters of the Division of the Principal/Owner, who has floated the Tender.
2) Changes and supplements need to be made in writing. Side agreements have not been made.
3) 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.

4) 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 intensions.

5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Owner/Principal in accordance with this Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.

Article 8- 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 Principal/Owner)

.....
(For and on behalf of Bidder/Contractor)

WITNESSES:

1. .....

   (signature, name and address)

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

Place:

Dated :

Form of Earnest Money Deposit Bank Guarantee Bond

WHEREAS, contractor..... ……..(Name of contractor) (hereinafter called "the contractor") has submitted his tender dated(date) for the construction of(name of work) (hereinafter called "the Tender")

KNOW ALL PEOPLE by these presents that we ..... …..(name of bank) having our registered office at ..... (hereinafter called "the Bank") are bound unto ....

(Name and division of Executive Engineer) (hereinafter called "the Engineer-in-Charge") in the sum of Rs. ..... (Rs. in words .....) for which payment well and truly to be made to the said Engineer-in-Charge the Bank binds itself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this .....day of ..... 20....

THE CONDITIONS of this obligation are:

(1) If after tender opening the Contractor withdraws, his tender during the period of validity of tender (including extended validity of tender) specified in the Form of Tender;

(2) If the contractor having been notified of the acceptance of his tender by the Engineer-in-Charge:

(a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to contractor, if required;

OR

(b) fails or refuses to furnish the Performance Guarantee, in accordance with the provisions of tender document and Instructions to contractor,

OR

(c) fails or refuses to start the work, in accordance with the provisions of the contract and Instructions to contractor,

OR

(d) fails or refuses to submit fresh Bank Guarantee of an equal amount of this Bank Guarantee, against Security Deposit after award of contract.

We undertake to pay to the Engineer-in-Charge either up to the above amount or part thereof upon receipt of his first written demand, without the Engineer-in-Charge having to substantiates his demand, provided that in his demand the Engineer-in-Charge will note that the amount claimed by his is due to him owing to the occurrence of one or any of the above conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date* ..... after the deadline for submission of tender as such deadline is stated in the Instructions to contractor or as it may be extended by the Engineer-in-Charge, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

DATE .....

SIGNATURE OF THE BANK

WITNESS .....SEAL

(SIGNATURE, NAME AND ADDRESS)

*Date to be worked out on the basis of validity period of 6 months from last date of receipt of tender.

PERFORMANCE GUARANTEE

(i) The contractor shall submit an irrevocable Performance Guarantee of 5% (Five percent) of the tendered amount in addition to other deposits mentioned elsewhere in the contract for his proper performance of the contract agreement, (not withstanding and/or without prejudice to any other provisions in the contract) within period specified in Schedule 'F' from the date of issue of letter of acceptance. This period can be further extended by the Engineer-in-Charge up to a maximum period as specified in schedule 'F' on written request of the contractor stating the reason for delays in procuring the Performance Guarantee, to the satisfaction of the Engineer-in-Charge. This guarantee shall be in the form of Cash (in case guarantee amount is less than Rs. 10,000/-) or Deposit at Call receipt of any scheduled bank/Banker's Cheque of any scheduled bank/Demand Draft of any scheduled bank/Pay Order of any scheduled bank (in case guarantee amount is less than Rs. 1,00,000/-) or Government Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the form annexed hereto. In case a fixed deposit receipt of any Bank is furnished by the contractor to the Government as part of the performance guarantee and the Bank is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the Government to make good the deficit.

(ii) The **performance guarantee shall be initially valid up to the stipulated date of completion plus minimum 6 (six) months** beyond that. In case the time for completion of work gets enlarged, the contractor shall get the validity of Performance Guarantee extended to cover such enlarged time for completion of work. After recording of the completion certificate for the work by the competent authority, the performance guarantee shall be returned to the contractor, without any interest.

(iii) The Engineer-in-Charge shall not make a claim under the performance guarantee except for amounts to which the BOG is entitled under the contract (not withstanding and/or without prejudice to any other provisions in the contract agreement) in the event of:

(a) Failure by the contractor to extend the validity of the Performance Guarantee as described herein above, in which event the Engineer-in-Charge may claim the full amount of the Performance Guarantee.

(b) Failure by the contractor to pay BOG any amount due, either as agreed by the contractor or determined under any of the Clauses/Conditions of the agreement, within 30 days of the service of notice to this effect by Engineer-in-Charge.

(iv) In the event of the contract being determined or rescinded under provision of any of the Clause/Condition of the agreement, the performance guarantee shall stand forfeited in full and shall be absolutely at the disposal of the BOG.

FORM "F"
STRUCTURE & ORGANISATION

1. Name & Address of the bidder
2. Telephone no./ Telex no./ Fax no.
3. Legal status of the bidder (attach copies of original document defining the legal status)
   a. An Individual
   b. A proprietary firm
   c. A firm in partnership
   d. A limited company or Corporation
4. Particulars of registration with various Government Bodies (attach attested photocopy)

Organization/ Place of registration Registration No.

1.

2.

3.

5. Name and tiles of Directors & Officers with designation to be concerned with this work…….....…..!
6. Designation of individuals authorized to act for the organization……..…!
7. Has the bidder or any constituent partner in case of partnership firm, ever abandoned the awarded work before its completion? If so, give name of the project and reasons for abandonment……..……!
8. Has the bidder or any constituent partner in case of partnership firm, ever been debarred/ blacklisted for tendering in any organization at any time? If so, give details……..…...!
9. Past work experience in IIT Delhi will be considered in deciding the Technical bid……..!

Signature of Bidder(S)

ANNEXURE-I

COMPLIANCE SHEET

TECHNICAL SPECIFICATION:

S. No.	Technical Bid Requirement As per Tender Notice & NIT & IITD form 8	Compliance Y/N
1	Demand Draft/Pay order or Banker`s Cheque /Deposit at Call Receipt/FDR of any Scheduled Bank against EMD.	
2	Enlistment order of contractor.	
3	Certificate of work experience.	
4	Certificate of Registration for GST and acknowledgement of up to date filed return of GST.	
5	Affidavit on Rs. 100/- Non judicial Stamp paper as per Notice Inviting Tender Condition 1.3 at page 8 of NIT. **(Stamp Paper shall be purchased/ notarized between date of publishing and last date of submission of bids beside this NIT/Tender ID and name of work must be mentioned on the affidavit).**	
6	Acceptance to execute INTEGRITY PACT.	
7	Undertaking as per **page-5/ Sl. No. 20'** on firm's letter head. **"The physical EMD shall be deposited by me / us with the Authority inviting the tender, in case I / we become the lowest tenderer, within a week of the opening of financial bid, otherwise, department may reject the tender and also take action to debar me / us from tendering in any form in IIT Delhi"**	
8	ESI & EPF registration.	
9	FORM "F" (Duly filled with all required details).	
10	In case of Partnership firm if all the papers of tender not signed by all the partners than a power of attorney authorizing the person who has signed the tender paper must be uploaded with the tender documents.	
11	Annexure-1 (Dully Filled & signed by the bidders)	
12	Annexure 2 (Dully Filled & signed by the bidders)	
13	Annexure 3 (Dully Filled & signed by the bidders)	
14	Annexure 4 (Dully Filled & signed by the bidders)	
15	Annexure 5 (Dully Filled & signed by the bidders)	
16	Any other documents given in NIT	
17	BOQ	

I have also enclosed all relevant documents in support of my claims, (as above) in the following pages.

Signature of Bidder

Name: _____

Designation: _____

Organization Name: _____

Contact No. : _____

ANNEXURE-II

<< Organization Letter Head >>
DECLARATION SHEET

We, _____ hereby certify that all the information and data furnished by our organization with regard to this tender specification are true and complete to the best of our knowledge. I have gone through the specification, conditions and stipulations in details and agree to comply with the requirements and intent of specification.
This is certified that our organization has been registered as per Tender Notice & NIT & IITD form 8Tender.We further certified that our organization meets all the conditions of eligibility criteria laid down in this tender document.

We, further specifically certify that our organization has not been Black Listed/De Listed or put to any Holiday by any Institutional Agency/ Govt. Department/ Public Sector Undertaking in the last three years.	NAME & ADDRESS of the Vendor/ Manufacturer / Agent
1. Phone	**As per Tender Notice & NIT**
2. Fax	
3. E-mail	
4. Contact Person Name	
5. Mobile Number	
6. GST Number	
7. PAN Number	
8. (In case of on-line payment of Tender Fees) UTR No. (For Tender Fee)	
9. (In case of on-line payment of EMD) UTR No. (For EMD)	

(Signature of the Tenderer)

Name:

Seal of the Company

ANNEXURE-III

List of Govt. Organization/Deptt.

List of Government Organizations for whom the Bidder has undertaken such work As per Tender Notice & NIT & IITD form 8		
Name of the organization	**Name of Contact Person**	**Contact No.**

As per Tender Notice & NIT

Signature of Bidder

Name: _____

Designation: _____

Organization Name: _____

Contact No. : _____

Annexure - IV

ON NON-JUDICIAL STAMP PAPER OF MINIMUM Rs.100

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

Sample Form of Bank Guarantee for Performance Guarantee

1 Whereas the Executive Engineer (CD-III) of IIT Delhi on behalf of the Board of Governors of IIT Delhi (hereinafter called "IIT Delhi") has entered into an agreement bearing number ……..... with ……..... (name and address of the contractor) …….. (hereinafter called "the Contractor") for execution of work …… (Name of work) ……... The IIT Delhi has further agreed to accept an irrevocable Bank Guarantee for Rs. ……..……. (Rupees …… only) valid upto …….. (date)..…… as Performance Guarantee/Security Deposit/Mobilization Advance from the said Contractor for compliance of his obligations in accordance with the terms and conditions of the agreement.

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

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

4 We, …… (indicate the name of the Bank) ……, further undertake to pay the IIT Delhi any money so demanded notwithstanding any dispute or disputes raised by the contractor in any suit or proceeding pending before any Court or Tribunal, our liability under this Bank Guarantee being absolute and unequivocal. The payment so made by us under this Bank Guarantee shall be a valid discharge of our liability for payment there under and the Contractor shall have no claim against us for making such payment.

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

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

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

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

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

Date .....

Witnesses:

1. Signature……
Name and address

2. Signature …….
Name and address

Authorized signatory
Name
Designation
Staff code no.
Bank seal

*Date to be worked out on the basis of validity period of 120 days where only financial bids are invited and 180 days for two/three bid system from the date of submission of tender.

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

Annexure - V

DETAILS OF ELIGIBLE SIMILAR NATURE WORKS COMPLETED DURING THE LAST SEVEN YEARS ENDING PREVIOUS DAY OF LAST DAY OF SUBMISSION OF TENDERS

Sr. no.	Name of work & Location	Owner or sponsoring organisation	Cost of work done (INR)	Date of commencement as per contract	Stipulated date of completion	Actual date of completion	Name and address / telephone number of officer to whom reference may be made
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1							
2							
3							

(Signature& name of the bidder)
Seal of the bidder

J.E (E) A.E (C) A.E.E(AC) EE[ED-I] EE[CD-III]

A.1 GENERAL TERMS AND CONDITIONS FOR THE WORK

1. The maintenance work is to be carried out in Hostels (Boys & Girls) under the jurisdiction of IIT, Delhi which includes maintenance of Civil, Electrical and Air Conditioning work.

2. The contractors are advised to get acquainted with the proposed work and its site and also study the Architectural Drawings, specifications and special conditions carefully before tendering. No claim of any sort shall be entertained on account of any site conditions and ignorance of specifications and special conditions.

3. For the discipline of Civil works CPWD specifications 2019 (Vol. I & II) with up to date correction slips. All Electrical works shall be carried out as per CPWD specification Part-I (Internal) – 2013, CPWD specification Part-II (External) – 1995, Indian Electricity Rules –1995 as amended till date of receipt of tenders. For items which are not covered under CPWD specifications, the special conditions / BIS specifications shall apply. In this regard the decision of Engineer-in-Charge shall be final.

4. All materials, T & P, consumable and contingent articles required for the work shall be arranged by the contractor. Materials used shall be in preference as per the nomenclature of the item / as per approved list / CPWD Specifications and as per directions of Engineer-in-Charge. Replaced materials used shall have same or richer specifications to the original materials and compatible to the work. If any of the accessories available in the market is not ISI marked then decision of engineer in charge is final and will be binding to the contractor.

5. All the malba /rubbish /silt /waste / garden waste etc. generated due to any operation / execution of the work shall be brought down through the stair case and shall not be thrown to the ground directly from the upper floors etc. Malba rubbish generated due to any operation from any hostels/ premises and its open spaces whatsoever shall be disposed off by the Contractor to the specified dumping point on daily basis else a recovery of Rs. 100/- per premises per day shall be made from contractor. The dumping point should be properly barricaded at all the time and should not give ugly look. This malba / rubbish shall further be disposed to the authorized municipal dhalao / dumping ground as and when the quantity becomes 4.5 cum or one truck and as per direction of Engineer-in-charge. The Malba/rubbish kept inside the dumping point should be covered with sheet or any other suitable material to avoid dust pollution. In case of malba / rubbish does not got removed from dumping point, a recovery of Rs. 1000/- (rupees One thousand) per day shall be made from the contractor after issuing notice in writing by the Engineer in charge of work. If the malba is not removed within three days of notice, the same shall be got removed by the department at the risk and cost of the Contractor and the amount shall be recovered from the bill of Contractor. This is in addition to the recovery of Rs. 1000/- per day for delay in removal of malba

6. The contractor or his representative shall be available at site on every visit of officer-in-charge as well as visit of senior officers.

7. Chases, holes & drilling works etc. shall be done by using power operated tools.

8. The contractor shall have to carry out the work other than day to day maintenance according to program given by the Executive Engineer / Assistant Engineer / Junior Engineer-in-charge. The contractor shall not carry out any work in any hostels without permission of Engineer-in-charge or his authorized representatives. The contractor shall have to adhere to this program failing which he shall be wholly responsible for any inconvenience caused to the occupants. No claim for idle labour on any account shall be entertained. The contractor shall depute his representative daily to the site of work. His name and Signature shall be attested by the contractor for record in the department.

9. The hostels and its portions where the work to be executed on any day shall be got approved from the representative of the Engineer-in-charge at the site of work. No work shall be carried out in any quarters / flats without the approval of the representative of the Engineer-in-charge. If any work carried out without the approval, the same shall be rejected and shall not be measured for payments.

10. The site for the collection and stacking of the material shall be got approved from the Engineer-in-charge.

11. The sample of all the items shall have to be got approved by the contractor from the Engineer-in-charge before the supply commences and shall be without prejudiced to the right of the Engineer-in-Charge to get random samples tested out of the actual lot received.

12. The Engineer-in-Charge will be at liberty to take respective sample(s) of each item of Schedule of Quantity in any approved laboratory as decided by him. The sample for testing will be provided by the contractor. All expenditure required to be incurred for taking sample, conveyance, packing and testing charges etc. will be borne by the contractor himself. In case any sample particular lot fails in testing, the contractor will be bound to replace the entire lot with fresh material of prescribed specification and the rejected lot will be returned to the contractor only after fresh lot is supplied.

13. Rejected materials will have to be removed by the contractor at his own cost immediately of the instructions of doing so.

14. In case of any dispute regarding rejection of quality of materials, the decision of the Engineer-in-Charge will be final and binding upon the contractor.

15. Other agencies may also be simultaneously executing some other work entrusted to them by the Engineer-in-charge and the Contractor shall offer necessary co-operation wherever required to these agencies so as not to interfere with or hinder the progress or completion of the work being performed by other Contractor (s). He shall as far as possible arrange his work and shall place and dispose off the materials being used or removed, so as not to interfere with the operations of other Contractors, or he shall arrange his work with that of the others in an acceptable and coordinated manner and shall perform it in proper sequence to the complete satisfaction of Engineer-in-charge.

16. Operations in which assistance shall be provided by the agency to the IIT Delhi:-

(a) Assistance for students rooms occupation by freshers and vacation by final year for the hostels.
(b) Informing to the IIT Delhi engineers regarding the failure in any service being provided by other departments, in so far as they affect the assets being maintained under this contract, so that they can be taken up with the concerned local body / department for rectification.
(c) Assisting the department in detection of unauthorized encroachments in the area being maintained.
(d) Assistance for showing the instruction provided by any hostels caretaker/staff.

17. Contractor shall ensure the cleanness and watch & ward of vacant rooms / premises etc. till further occupation of the same.

18. All taxes applicable at prevalent rates shall have to be paid by the contractor himself and the rates quoted by him shall include these taxes and nothing extra on this account shall be payable.

19. The rates for different items of work shall apply for all heights and depths, leads and lifts unless otherwise specified in the agreement or specifications applicable to the agreement.

20. Any damage done by the contractor to any existing work during the course of execution of the work shall be made good by him at his own cost.

21. Articles manufactured by the reputed firms and approved by Engineer-in-Charge shall only be used. Only articles classified, as 'first quality' by the manufacturer shall be used unless otherwise specified. In case articles bearing ISI certification are not available in the market, quality of samples brought by the contractor shall be judged by standards laid down in the relevant CPWD specifications. For the items not covered by CPWD specifications relevant BIS standards shall apply. The sample of materials to be brought to site for use in work shall be got approved from the Engineer-in-Charge before actual execution of work.

22. The contractor shall submit a detailed program of work within 15 days of the date of award of work. The Engineer-in-Charge can modify the program and the contractor shall have to work accordingly.

23. The quantities of any item shall not be exceeded beyond the agreement quantities without prior permission of Engineer-in-Charge.

24. Statutory recoveries such as on account of GST, Income tax, Surcharge, Construction Worker's Welfare Cess etc. as applicable from time to time shall be made from the gross amount of Running A/c Bill and Final Bill of the contractor.

25. The contractor shall make his own arrangements for obtaining electric connection, if required and make necessary payments directly to the department concerned. In the absence of electric connection or failure of power supply, the Contractor shall make his own arrangement of silent type generators as per NGT Guidelines.

26. The contractor shall make his own arrangement for getting the permission for entry of trucks carrying materials for the site from the traffic police.

27. No payment shall be made to the contractor for any damage caused by rain, snow fall, floods or any other natural causes whatsoever during the execution of work. The damage caused to work shall have to be made good by the contractor at his own cost and no claim on this account shall be entertained.

28. The contractor shall take all precautions to avoid accidents by exhibiting necessary caution boards / signages, warning boards, red flags, red lights and providing necessary barriers / barricading of the construction area and all other measures required from time to time. He shall be responsible for all damages and accidents caused due to negligence on his part. No hindrance shall be caused to traffic during the execution of the work by storing materials on the road.

29. The contractor shall be fully responsible for the safe custody of the material issued or brought by him to site for doing the work.

30. If due to exigency of work, the work is required to be carried out in more than one shift or during night then Contractor will be bound to execute the work accordingly and arrange the T & P and labour etc. No extra claim on this account shall be entertained.

31. The rate for all items of work shall, unless otherwise clearly specified, include cost of all labour, material and other inputs involved in the execution of the items.

32. In case of any discrepancy found in NIT / tender documents, the order of preference may be read as the following.

a) Description of Schedule of quantities
b) Particular Specifications, Additional Conditions and Special Conditions, if any.
c) Architectural Drawings
d) CPWD Specifications with up to date correction slips.
e) Indian Standard Specifications / BIS
f) Sound engineering practice.

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

34. The contractor will not have any claim in case of any delay by the Engineer-in-Charge in removal of trees or shifting, removing of telegraph, telephone or electric lines (overhead or underground), water and sewer lines and other structure etc., if any which may come in the way of the work. However, suitable extension of time can be granted to cover such delay.

35. The contractor shall clean the site thoroughly of scaffolding materials, rubbish, equipments left out of his work and dress the site around the building to the complete satisfaction of the Engineer-in-charge before the work is treated as completed.

36. Vacant rooms/premises/quarter will be locked and will not be allowed for unauthorised occupation or use by contractor / his staff / his workers. In case any quarter/rooms has been found to be occupied unauthorized, a compensation @ Rs. 1000/- (Rupees one thousand only) per day per quarter/rooms (type-I, II and III) shall be levied and the contractor will also be liable for action as per breach of the contract.

37. No residential accommodation shall be provided to any of the staff engaged by the contractor. The contractor shall also not be allowed to erect any permanent / temporary set up for his staff in the premises.

38. Contractor has to provide drinking water facility in each enquiry office by providing necessary filter (RO) with water cooler for IITD staff and his staff. Watch & Ward of Enquiry office shall be the responsibility of the contractor.

39. The contractor shall comply with proper and legal orders and directions of the local or public authority or Municipality and abide by their rules and regulations and pay all fees and charges which he may be liable.

40. The Contractor shall give due notices to Municipality, Police and/ or other authorities that may be required under the law/ rules under force and obtain all requisite licenses for temporary obstructions/ enclosures and pay all charges which may be leviable on account of his execution of the work under the agreement. Nothing extra shall be payable on this account.

41. The work shall be carried out in a manner complying in all respects with the requirements of relevant bye laws of the local bodies, labour laws, minimum wages act, workmen compensation act and other statutory laws enacted by Central Govt. as well as State Govt.

42. The Contractor shall depute required Technical Staff each for civil ,electrical and air conditioning works as per Clause 32 of Schedule F who shall remain present at IITD premises during the time and days as provided in Schedule of Quantity. The agency shall submit the credential of proposed staff & shall be taken on roll only after approval of Engineer-in-charge. The attendance shall be accepted through Biometric Attendance System only.

43. During the event of vacation of rooms/ quarters, full verification of all fittings & fixtures of civil & electrical, lock the quarter & key submission to JE in-charge. Watch & ward of quarters until it is not occupied by next allottee will be the responsibility of the agency without any extra cost.

44. During the period of execution of work and extended period any unauthorized construction / occupation in Govt. quarters / Govt Land is to be reported immediately to the JE/AE-in-charge and demolish the same by the contractor through his labour / staff in consultation with JE-in-Charge and submit monthly status of unauthorized construction / occupation by physical survey of colony.

45. Any other inventory added during the contract period to any of the installations of these Quarters / Common areas shall also be maintained within the scope of work without any extra cost.

46. The contractor shall provide necessary barriers, warning signals and other safety measures while executing the work or wherever necessary so as to avoid accidents. He shall also indemnify IITD against claims for compensation arising out of negligence in this respect. Contractor shall be liable, in accordance with the Indian law and Regulations for any accidents occurring due to any cause. The contractor shall also provide all insurance including third party insurance as may be necessary to cover the risk. No extra payment would be made to the contractor due to the above provisions thereof.

47. Any damage caused due to negligence of contractor during the routine maintenance shall be of firm's responsibility. The firm has to make good the same at his own risk and cost.

48. The contractor will arrange & store all the materials at Enquiry office required for attending day to day maintenance complaints for at least 3 months or as decided by Engineer-in-Charge, throughout agreement period. A material at site (MAS) Account Register shall be maintained by the contractor for materials brought at site & used in day-to-day maintenance work. The MAS Account Register shall be kept at service centre along with relevant bill / invoices of materials brought at site so that officers of IITD can review the quantity and quality of material present in store. This MAS Account Register shall be the property of Engineer-in-Charge after the completion of work.

49. This contract includes providing the Emergency Services whenever required after normal working hours; no extra charge will be entertained for attending such complaints.

50. The Contractor will carry out preventive maintenance / Checks as per CPWD Specifications / respective Standard trade practice and as per direction of Engineer-in-Charge. The result of such tests will be recorded in proforma as decided by the Engineer-in- Charge.
51. All the roofs, sunshades and Chajjas etc. shall be kept clean all the time to prevent water stagnation and seepage in the buildings and no vegetation shall be allowed to grow on walls, roofs, staircase, chajjas, berms, roads etc.

52. The labour deployed for attending complaints should carry necessary tool kit, container (Tasla), required for mixing any cement sand or other material and should carry with them water bottle and waste bag for collection of minor rubbish material if received during attending the complaints, so that the site of work shall remain neat and clean.

53. The Contractor shall submit measurement of work section wise to each Junior Engineer/A.E (Civil/Electrical/A.C). However, the measurement shall be compiled by the Nodal Engineer (Civil/Electrical/A.C).

54. The movement of trucks and vehicles shall be regulated in accordance with rules and regulations as approved by competent authority.

55. The Contractor shall be bound to follow all such restrictions / instructions and nothing extra shall be payable on this account.

56. The Contractor is required to prepare and install appropriate number of Display Boards at suitable locations in the Office/ Maintenance Service Centre, to apprise the hostel's staff about the details of Contractor, Supervisor, Executive Engineer, Assistant Engineer and Junior Engineer etc.

57. The Contractor shall not stack building material / malba on Municipal Corporation land or road or on the land owned by any other authority and in case of failure to do so, he shall face penal action as per the rules, regulation and bye-laws of the said body or authority. The Engineer-in-Charge shall be at liberty to recover the amount due but not paid to the concerned authorities on account of the above from any amount due to the Contractor including amount of the security deposit or retention money in respect of this Contractor or any other Contract.

58. In order to adhere to the Committed Program and requirement of allottes, the work shall be carried out in more than one shift and Contractor will deploy the resources accordingly. No extra claim on this account shall be entertained. Contractor should give advance notice in writing to Engineer-in-charge for doing any work in odd hours and arrange permission accordingly.

59. All the complaint registers, log books, MAS, Task Register, workers diary, wages register, test result registers or any other record shall be supplied by the contractor, maintained by the staff of the contractor and handed over to the department on the completion/ termination of the contract or duly filled up the register.

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

61. It shall be the responsibility of the agency to transport all the items required for comprehensive maintenance from store and to carry dismantled material from site to store and nothing extra shall be paid on this account.

62. The contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the students, tenants of adjacent properties and to the public in general and to prevent any damage to such properties and any pollution of smoke, streams and waterways. He shall make good at his cost and to the satisfaction of the Engineer-in-Charge, any damage to roads, paths, cross drainage works or public or private property whatsoever caused by the execution of the work or by traffic brought thereon by the contractor. Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to the occupants / users of adjoining buildings.

63. The agency has to ensure the safety and protection of all the existing fittings, floorings, fixtures and all other building parts during execution of work, **nothing extra shall be paid to agency on this account.**

64. No special repairs and addition/ alteration work shall be carried out in any rooms, quarters/flats without the approval of the representative of the Engineer-in-charge. Any work carried out without approval of the representative of the Engineer-in-charge at the site, the work shall be rejected and shall not be measured and paid for.

65. Agency shall provide composite supervision which will monitor all Civil & E & M complaints and ensure that they are attended timely to the entire satisfaction of respective Engineer-in-charge. Nothing extra on this account will be paid.

66. **Agency has to submit measurement of work executed during each month, at least once in a two month, failing which a recovery of Rupees Thirty Thousand per month shall be made from the next Running account / final bill.**

67. **Pollution Control Guidelines**

    The guidelines regarding preventive measures for Air Pollution from demolition & construction activities issued by Government and any other guidelines issued till date or during the execution of work, in compliance of Hon'ble National Green Tribunal directions, are applicable to the contractor. All appropriate protective measures as per NGT guidelines / directions shall be taken by the contractor and nothing extra shall be payable on this account.

68. Agency has to pay Bonus as per applicable law to all manpower deployed for day to day maintenance work, office services, watch & ward etc. and nothing extra shall be payable on this account.

69. In any case comprehensive maintenance work shall not be stopped because of non payment of running bills for amount greater than as stated in schedule F. Payments of running/final bills will be made as and when funds are made available to Engineer in charge. All issues with respect to any delay in payments will be governed by the clause 7 of the GCC.

A.2 Operation and Management of Service Centre

1. Service Centre will function round the clock on all days including Holidays except Sunday. Emergent complaints related to sewerage and plumbing etc. shall be attended from 8:00 AM to 10:00 PM and emergent complaint related to electricity shall be attended round the clock.
2. The contractor shall take immediate action to attend to any complaint assigned to him through site order book / verbal instructions from Engineer-in-Charge or on telephones / through call centre of IIT ERP system or through any mode, from occupants. In all cases he shall attend the complaints in the specified duration as mentioned below:-
   2.1 No delay complaints – Complaints of emergent nature such as electricity not being available, plumbing or sewerage systems not working etc. are to be attended immediately and as per schedule for compliance or complaints.
3. Contractor shall facilitate Visitors while they visit to Service Centre for lodging complaint in person.
4. Necessary Complaint Diary/complaint-attendance books shall be maintained by the contractor in respect of complaints received and shall be got signed by the allottees, after attending.
5. The contractor shall take immediate action to attend any complaint downloaded by him from IIT Delhi, ERP system Website or assigned to him through site order book/verbal instructions from Engineer-in-charge or on telephone/IIT Delhi, ERP system from occupants. Contractor shall endeavour to attend the minor complaints in the Green benchmark time as mentioned in ERP system. In no case the % of complaints attended in GREEN plus yellow benchmark time every calendar month shall be less than 90% but not less than or equal to 80%, in case of both Civil and Electrical complaints. In case of failure on part of contractor to meet these parameters a lump sum amount of Rs.10000/-shall be recovered from contractor's bill for every such month of default for respective civil and electrical bills separately. If this % falls below 80% but not less than or equal to 70%, in case of both civil and electrical complaints, a lump sum amount of Rs. 25000/- shall be recovered from contractors bill for every such month of default for respective civil and electrical bills separately. If this percentage falls below 70 %, in case of both civil and electrical complaints, no payment shall be made to the contractor for day to day component of the work for that particular month.
6. In addition to para A.2(5) above, based on feedback taken by infra unit, if the % of satisfied allottees falls below 90% but not less than or equal to 80%, both for civil and Electrical complaints, a lump sum amount of Rs. 10000/- shall be recovered from contractors bill for every such month of default for civil and electrical bills respectively. If this % falls below 80% but not less than or equal to 70%, both for civil and electrical complaints, a lump sum amount of Rs. 25000/- and Rs. 12500/- shall be recovered from contractors bill for every such month of default for civil and electrical bills respectively. The reports generated by IIT Delhi, ERP system every month shall form the basis of these recoveries and no dispute on this matter shall be entertained. These recoveries for less percentage of complaint attended and less percentage of satisfied allottees shall be simultaneous and in addition to recoveries mentioned elsewhere in the bid documents.
7. Main agency shall ensure that the day to day complaints are attended timely and there is satisfaction among the allottes. In case there is default of not complying the bench mark standard in respect of timely attending the complaints and satisfaction level then the Engineer-in-charge reserves the right to ask the main agency to replace the sub agency duly fulfilling the eligibility criteria.
8. The contractor or his Engineer at the Service Centre shall maintain complaint register, logbooks, etc. as required for nature of work at service centre / pump house etc.
9. In order that the contractor may take daily instructions regarding all complaints / works except day to day maintenance, a site order book will be maintained at the Enquiry Office. The JE / AE will note down the work in flats/rooms to be attended to and the dates on which the work in these flats/rooms is to be started.
10. Day to day repairs is to be carried out in all the buildings under maintenance of this contract. For this purpose a complaint register shall be maintained for recording of the complaints received at enquiry counter/on phone/through call centre/ordered/intimated in writing.

11. The purpose of these facilities is to ensure satisfactory continuous functioning of various services in the buildings.
12. The following facilities shall be made available to the agency by IIT Delhi at the Maintenance(s):-
    a) Suitable Counter for Computer Operator to sit and receive complaints from call centre of IIT Delhi.
    b) Suitable space for the use of the workers and other staff deployed by the agency at the service centre.
    c) The agency has to arrange all the furniture's required for the work for which no extra will be paid.
    d) The agency shall restore back the premises and other articles as provided by the department at the time of closure of the contract.
    e) The facilities as mentioned at para a & b, shall be provided to the contractor free of charge.
13. The complaints which cannot be attended on daily basis shall be transferred to the major complaint for which the instructions of the JE/AE & EE shall be obtained before taking up the work.
14. Similarly complaints registered for addition / alteration works shall be transferred to periodic/up-gradation and shall be submitted to representative of Engineer-In-Charge for the completion of the formalities before the work is ordered to be taken up.
15. Operations in which assistance shall be provided by the agency to IIT Delhi.
    a) Assistance for occupation and vacation of the rooms of students/quarters.
    b) Assisting the department in detection of unauthorized encroachments in the area being maintained.
    c) Informing the Engineer-in-Charge regarding the failure of any service being provided by other agencies, in so far as they affect the assets being maintained under this contract, so that they can be taken up with the concerned local body / departments for rectification.
16. Complaint Diary, attendance register and other records will have to be produced either daily according to the requirement or when asked to do so by the Engineer-in-charge or his authorized representative.
17. When a register/diary gets completed, it will be handed over to the concerned J.E. / A.E. It will not be returned to the contractor and the same will remain the property of the department.
18. All required register will be issued by Engineer-in-charge duly marked in chronological order but the contractor will have to arrange all such registers/stationery etc. Nothing extra shall be paid on this account.
19. The contractor shall have to provide suitable communication arrangement at site so as to enable the staff on duty to acknowledge complaints made by clients & to attend the complaints promptly.
20. The labour/workers/staff deployed by the Contractor against 'Day to Day Maintenance' work shall not be used for A/R & M/O or Special Repair work. If it is found that the labour deployed for 'Day to Day Maintenance' work has been engaged on 'Special Repair Work', necessary recovery shall be made on the basis of double the rate of Wages for particular day in respective category.
21. Site Engineer shall monitor the 'Day to Day Maintenance' work being carried out by the labour engaged by the Contractor for each Service Centre to interact with the allottees. The Site Engineers shall be properly and neatly dressed, well trained, courteous, well behaved, soft spoken and should have basic knowledge of Civil, Electrical and Air conditioning work. He will not enter into argument with the allottee for any reason. All the contentious issues will be brought by him to the notice of IIT Delhi, officials. These Site Engineers are also required to mark their attendance through Biometric Attendance System.
22. The Site Engineer will be an interface between the allottee and the IIT Delhi. No labour will directly go to attend the complaint. Instead Site Engineer will go along with the labour and guide the labour to carry out the work. The Site Engineer will get the complaint attended and will get the receipt signed from the allottee in token of having attended the complaint satisfactory.
23. The complaints are being lodged in the IIT Delhi, ERP system and all the complaints are being forwarded to respective maintenance. The contractor shall use web portal IIT DELHI, ERP SYSTEM for receiving and attending complaints and monitoring the same. The time frame to attend the complaint as per IIT DELHI, ERP SYSTEM shall be maintained.

24. The entry of having attended complaint shall be recorded in the IIT Delhi, ERP system by the Contractor or as per direction of J.E./A.E. in charge

TIME FRAME FOR ATTENDING COMPLAINTS

S No	Complaint Type	Time
1	Emergent Complaints	6 hours
2	Minor Complaints	3 days
3	Major Complaints	30 days
4	Periodical Complaints	60 days

25. The agency has to arrange all the materials mentioned in the list below as per approved make for day to day maintenance to attend all the complains related to these items. There will be no extra payment for these items. **(For Civil Works)**

Broad list of Material considered and Time Frame in the item of Day to Day Maintenance and upkeep of all internal and external assets of quarters for which no payment shall be made separately.

S. No	Description of Item
1	Low level cistern fitting set (P.V.C) with ball cock (Hindware, Parryware or equivalent)
2	CP brass waste 32mm dia for wash basin
3	CP brass waste 40mm dia for sink
4	PVC flexible waste pipe 32 mm dia with length not less than 700 mm including PVC waste fittings
5	Stainless steel grating 125mm dia
6	P.V.C flush bend 1.20m long 32mm dia with PVC coupling for flush valve
7	PVC connection pipe 15mm dia 45cm long
8	PVC connection pipe 15mm dia 60cm long
9	CI brackets for wash basin
10	CP brass face for pillar cock
11	CP brass face for concealed stop cock
12	CP brass face of different size for bib cock
13	Cement / White cement
14	12mm Commercial Ply
15	Glass putty
16	M-seal
17	GI binding wire
18	MS butt hinges of sizes
19	MS nails of sizes
20	MS screws of sizes
21	GI elbow of sizes
22	GI socket of sizes
23	GI Tee of sizes
24	GI plug of sizes
25	GI Nipple of sizes
26	GI Union of Sizes
27	Hexa nipple of sizes
28	PVC Cistern handles for low level cistern
29	PVC washer for bib cock/siphon

30	Soot gola
31	PTMT ball cock with rod 15mm and HD ball
32	Pre-cast RCC gully trap cover of size 300x300mm
33	Threaded PVC Tank lid
34	Portland gray cement 43 grade
35	Coarse sand / Fine sand /Jamuna Sand
36	Stone aggregate 20mm nominal size
37	Stainless steel screws of sizes
38	Brass sliding door bolts of sizes
39	Brass Tower bolts of sizes
40	Brass handles of sizes
41	Binding wire
42	Fevicol
43	4 mm Thick float Glass
44	Door stopper
45	Welding Machine
46	Welding Rod
Electrical	
47	Inventory maintained of the following material for maintenance of external and internal electrical installation.
47.1	AC Plug Top 20A
47.2	AC Socket 20A
47.3	Batten (20mm) PVC
47.4	Batten (25mm) PVC
47.5	Wire Aluminium 1C x 1.5 Sqmm
47.6	Wire Aluminium 1C x 2.5 Sqmm
47.7	Wire Aluminum 1C x 4 Sqmm
47.8	Wire Aluminum 1C x 6 Sqmm
47.9	Wire Aluminum 1C x 10 Sqmm
47.10	Wire Aluminum 1C x 16 Sqmm
47.11	Wire Copper (3C x 1.5Sqmm)
47.12	Wire Copper (3C x 2.5 Sqmm)
47.13	Fan Ceiling 900mm (36") Complete
47.14	Fan Ceiling 1400mm (56") Complete
47.15	Fan Exhaust 300mm (12") Complete
47.16	Fan Exhaust 380mm (15") Complete
47.17	Fan Exhaust 450mm (18") Complete
47.18	Fan Fresh Air 150mm (6")
47.19	Fan Fresh Air 200mm (8")
47.20	Fan Fresh Air 250mm (10")
47.21	Fan Wall Mounting 400mm/450mm
47.22	Geyser 15 Litre
47.23	Geyser 25 Litre
47.24	Geyser 100 Litre
47.25	Geyser Inlet /Outlet Pipes
47.26	LED Bulb Pin/ Screw Type 10-20 watt
47.27	LED Bollard 6 -9 watts, Not less than 800 mm Height.
47.28	LED Bulk Head Fitting
47.29	LED Tube 18-22Watt.
47.30	LED Fitting 1x1' (300mmx300mm)
47.31	LED Fitting 1x4' (300mmx1200mm)
47.32	LED Street Light Fitting up to 30-40Watt

47.33	LED Street Light Fitting 45/50Watt
47.34	LED Street Light Fitting 60/70Watt
47.35	LED Street Light Fitting 90/120Watt
47.36	LED Flood Light Fitting 50Watt
47.37	LED Flood Light Fitting 90 - 120 Watt
47.38	LED Flood Light Fitting 350Watt
47.39	Post Top Fitting 40 Watt
47.40	Meter Energy Single Phase
47.41	Meter Energy three Phase
47.42	Plug Top 5/6/10A
47.43	Plug Top 15/16/20A
47.44	Plug Top 25 A
Air Conditioning Work	
48	50 % of Inventory maintained of the following material for maintenance of Air Conditioning system.
48.1	Closed Cell electrometric nitrile rubber insulation of class "O" with suitable adhesive of 19 mm thick
48.2	Butterfly valve (manual) with CI body SS disc nitrile sheet & O-ring & PN 16 pressure rating of 200 mm size
48.3	Butterfly valve (manual) with CI body SS disc nitrile sheet & O-ring & PN 16 pressure rating of 150 mm size
48.4	2 way modulating control valve with actuator (as per existing in FCU)
48.5	5 A to 32 A SP MCB 'C' curve, 240 /415 V, 10 kA
48.6	5 A to 32 A DP MCB 'C' curve, 240 / 415 V, 10 kA
48.7	5 A to 32 A TP MCB 'C' curve, 240 / 415 V, 10 kA
48.8	TP sheet steel enclosure with 16/25/32 A, 415 V "C" curve TP MCB
48.9	16 kA, 100 A TPMCCB with thermo magnetic release and terminal spreaders
48.10	FCU Motor, 38 W, single phase, 50 Hz, 940 rpm with adjustable speed
48.11	Wall fixing thermostat (Controller) for room FCU

A.3 Terms and Conditions for Manpower

1. Police verification of every staff deployed by the contractor shall be got done by the contractor compulsorily and a copy of police verification and his Aadhar Card/Voter ID or any other Identity Card copy shall be provided to Engineer-in-Charge after which an identity card shall be issued to each employee of the contractor for proper identification. The employee and labourers engaged by the contractor under this contract shall wear neat and clean uniforms as approved by Engineer-in-Charge along with name badges, else recovery shall be made @ Rs 100/- per person per day.
2. The staff employed by the firm for the maintenance works shall wear proper uniform. The Monogram/ badges shall be fixed on the uniform. The contractor shall have to arrange for issue of identity cards as per direction of the Engineer in charge for all the staff members deployed within one week of the start of the work at his own cost and also submit two extra photographs with full address of each worker for record. If contractor fails to do so, the department shall recover Rs.100/- per day/per person for this default from the monthly bill. The Contractor shall also provide the basic PPEs (Personal Protection Equipments)/ Safety equipment like Helmet, Safety belt/harness, Safety Shoes, Gloves etc. to each worker and supervisor, whosoever is directly connected with the work and safety of the staff employed will be the responsibility of the Contractor.
3. Biometric attendance of workers deployed for day to day maintenance shall be maintained by the contractor and biometric machine required shall be provided, installed and maintained by the contractor free of cost.
4. The Engineers, Supervisors and staff including skilled, semiskilled and unskilled workers of the agency shall carry mobile telephone(s) to enable the Engineer-in-charge to have easy and quick communication. Nothing extra shall be paid to the Contractor on this account and his quoted rates for various items under this contract will be deemed to be inclusive of the expenditure towards such Mobile connections and use thereof.
5. The Contractor shall engage computer literate staff that should be able to use computerized complaints receiving and monitoring system. The Contractor will have to arrange and maintain telephone, computers along with peripherals and broadband internet connections (including standby connection from other service provider) to operate IIT Delhi, ERP system. The Contractor shall also pay all the bills/ running cost of the computer and its peripherals, consumable, landline telephone and broadband connections etc. Land Line Telephone connections available at the Maintenance can be used by the Contractor if he so desires however bill will have to be paid by the Contractor.
6. The worker will clean the place / site thoroughly before leaving the site after attending the complaints.
7. The contractor shall have registration with Employee's Provident Fund Commissioner and Employee's State Insurance Corporation for safeguarding interest of his workmen. The Contractor shall make deduction on account of EPF & ESIC to labour/staff deployed by him on the work and will furnish detail of each worker at division office every month. The Contractor shall have to follow all statutory rules and regulations. He shall obtain all other necessary approvals from statutory bodies as per law in force.
8. The staff engaged by the contractor should be physically and mentally fit and should be well behaved, polite and courteous. Any complaint against staff on behaviour would be taken very seriously and such staff shall have to be removed by the contractor immediately from the site. The replacement for the same shall be arranged without loss of time failing which the Engineer-in-Charge has the power to cancel the contract and the contractor shall have no right to claim for loss / compensation.
9. Each worker shall maintain a complaint diary and get the feedback recorded from the allottee regarding attending the complaint. In case, it is found that the complaint has not been attended satisfactorily, it will be considered as unattended. List of such complaints shall be submitted to the representative of Engineer-in-Charge or his representative on daily basis. Action as already mentioned above shall be taken for unattended complaints.
10. The contractor shall submit duty roaster in duplicate within a week from the date of start of work and thereafter two days before the close of every month if staff is changed.
11. Shift timings can be changed as per the requirement at site and as per the decision of Engineer-in-Charge.
12. The contractor has to keep the sensitiveness of site in mind for execution of the work and deployment of staff.

13. The contractor will be fully responsible for the conduct of the staff deputed at site. The Engineer-in-Charge reserves the right to remove/terminate the services of worker without assigning any reason what so ever.
14. The contractor shall provide his mobile number or the mobile number of his representative to the Engineer-in-Charge for ease of communication with the controlling staff.
15. No claims of the labourers shall be entertained by the Department including that of providing employment, regularization of services etc.
16. S**afety codes and Labour Regulations**
    In respect of all labour employed directly or indirectly on the work for the performance of the contractor's part of work, the contractor at his own expense, will arrange for safety provision as per the statutory provisions, B.I.S. recommendations, factory act, workman's compensation act, CPWD code and instructions issued from time to time. Failure to provide such safety requirement would make the firm liable for penalty as decided by Engineer-in-charge. The agency will be solely responsible for any damages, mishap or injury/death of their staff deployed at the site.
17. Contractor shall pay monthly payment to staff through account payee Cheque or ECS which shall be ensured before 7th day of the month.
18. Contractor shall submit fortnightly labour report along with details of payment made to staff engaged for this work in two copies. Payment details shall include name of worker, bank account details, amount due, amount paid and Cheque number.
19. Contractor shall make the payment to workers at the rates published by Central Labour Commissioner.
20. The contractor has to supply and maintain log book and record all the operational &routine maintenance parameters, which should be signed by the operational staff deputed by him. The operational staff shall sign "for ……. (Name of contractor) ….by fixing a rubber stamp every time he signs. The log book should be as per sample approval by the Engineer-in-charge with timing of three shifts printed on each page.
21. Deputed staff should strictly follow the IIT Delhi Maintenance charter.
22. Bonus paid to labour is covered under overhead charges. Nothing extra shall be paid by the department on this account.
23. The contractor shall provide capacity building of all the workers for adopting latest mechanism for attending the day-to-day complaints, execution of Special Repairs Addition/alteration and up-gradation works. For such training the contractor shall submit a training calendar with complete details of training schedule &training content shall be submitted within 15 days for approval of Engineer-in-charge. Nothing extra will be paid on this account.
24. ESI / EPF of deployed staff will be deposited on regular basis, the same shall be reimbursed to the contractor, on production of proof of deposit of the same with respective Govt. department.
25. The contractor shall under take replacement/substitution of any staff, found unfit for duty due to any circumstances, **within 24 hour**, as per directions of Engineer-in-charge. The contractor shall make local arrangements, for the short fall in staff, during intervening period.
26. The Contractor shall depute his representative daily to the site of work. The name and signature of his representative attested by the Contractor shall be intimated to the Engineer-in-charge.
27. The contractor shall have to work in pandemic / epidemic conditions such as COVID-19 for which he has to make safety arrangement / measures for the workers / staff and for the premises meant for them, as per guidelines issued by Government and directions issued by Engineer-in-charge from time to time and nothing extra shall be paid on this account.
28. The contractor shall not employ woman/man below the age of 18 years at site.
29. The contractor shall responsible of all types liabilities of the staff & they are not entitled for regular services in the department.
30. No staff/ labour shall be removed without prior approval of Engineer-in-charge.

PART 'B'

I.I.T.D – 7/8 e-TENDERING	I.I.T.D

INDIAN INSTITUTE OF TECHNOLOGY
HAUZ KHAS, NEW DELHI - 110016

Item rate tender & Contract for
"**Civil, Electrical & Air Conditioning Component**"

Tender for the work of: **Name of work: -Comprehensive Maintenance of Civil, Electrical & Air Conditioning work at Hostels (Boys & Girls) under whole campus at IIT Delhi.**

(i) To be submitted by **as per tender notice** …… to
……

(ii) To be opened in presence of bidders who may be present at **as per tender notice** ……
in the office of **D.R. (Store)**
Issued to ……..
Signature of officer issuing the documents ……..……
Designation.…….……
Date of Issue …….

TENDER

I/We have read and examined the notice inviting tender, schedule, A, B, C, D, E & F Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, clauses of contract, Special conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.
I/We hereby tender for the execution of the work specified for the The Board of Governors, I.I.T. Delhi, Hauz Khas, New Delhi - 16 within the time specified in Schedule 'F' viz., schedule of quantities and in accordance in all respect with the specifications, designs, drawing and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of contract and with such materials as are provided for, by, and in respect of accordance with, such conditions so far as applicable. We agree to keep the tender open for **One Twenty (120)** days from the date of opening of technical bid.

A sum of **as per tender notice** is hereby forwarded in Banker Cheque or Demand Draft or Fixed Deposit receipt of a schedule bank drawn in favour of IIT Delhi as earnest money. If I/We, fail to furnish the prescribed performance guarantee within prescribed period. I/We agree that the said The Board of Governors, I.I.T. Delhi, Hauz Khas, New Delhi - 16 or his successors, in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/We fail to commence work as specified, I/We agree that The Board of Governors, I.I.T. Delhi, Hauz Khas, New Delhi - 16 or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely, otherwise the said earnest money shall be retained by him towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.5 of the tender form. Further, I/We agree that in case of forfeiture of Earnest Money & Performance Guarantee as aforesaid. I/We shall be debarred for participation in the re-tendering process of the work.

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

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

Dated:

Signature of Contractor

Witness:

Postal Address

Address:

Occupation:

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for an on behalf of The Board of Governors, I.I.T. Delhi, Hauz Khas, New Delhi - 16 for a sum of

(Rupees…….……).

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

(a)

(b)

(c)

For & on behalf of Board of Governors, IIT Delhi

Signature ……..

Dated: Designation …….

SCHEDULES (A to F)

(For Civil, Electrical & AC Component)

SCHEDULE 'A'

Schedule of quantities for Civil, Electrical **& Air Conditioning** work as attached.

SCHEDULE 'B'

Schedule of materials to be issued to the contractor

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

SCHEDULE 'C'

Tools and plants to be hired to the contractor

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

SCHEDULE 'D'

Extra schedule for specific requirement/document for the work, if any. Nil.

SCHEDULE 'E'

Reference to General Conditions of contract : GCC for Maintenance work 2023 for CPWD works along with correction slips/amendments issued upto last date of submission of bid.

Name of Work	:	**Comprehensive Maintenance of Civil, Electrical & Air Conditioning work at Hostels (Boys & Girls) under whole campus at IIT Delhi.**
Estimated cost of work:	:	**Rs. 9,51,65,733/-**
Earnest Money: (To be returned after receiving performance guarantee)	:	**Rs. 19,03,315/-**
Performance Guarantee	:	5% of tendered Value
Security deposit	:	2.5 % of tendered value

SCHEDULE 'F'

GENERAL RULES & DIRECTIONS:

i)	Officer inviting tender	:	Executive Engineer [CD-III]
2.Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clauses 12.2 & 12.5		:	See below

Definitions:

2(i)	Engineer-in-Charge	:	**For Major component: Executive Engineer [CD-III]** **For Electrical: Executive Engineer (ED-I)** **For Air Conditioning: AEE-in-charge, AC Div.**
2(ii)	Accepting Authority	:	Institute Engineer
2(iii)	Percentage on cost of materials and Labour to cover all overheads and profits:	:	15%
2(iv)	Standard Schedule of Rates:	:	DSR-2023 for Civil work - GST Correction Factor 0.973 + 3% cost Index and DSR-2022 **for Electrical work - GST Correction Factor 0.973** with up-to-date correction slip on date of submission of bid & Market Rate.
2(v)	Department:	:	**Works department at I.I.T Delhi**

2(vi) Standard IITD Form & GCC for Maintenance work 2023, modified & Corrected up to last date of submission of bid.

Clause 1

(i)	Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance	:	**15 days**
(ii)	Maximum allowable extension with late fee @ 0.1 % per day of Performance guarantee amount beyond the period provided in (i) above,	:	**15 days**

Clause 2

Authority for fixing compensation under clause 2: : Institute Engineer

Clause 5

Number of days from the date of issue of letter of acceptance for reckoning date of start: : 10 (Ten) days

MILE STONE CHART

Sl. No.	**Description of mile stone (financial terms)**	**Period for completion from date of start in days/months**	**Withheld amount for non-achievement of mile stone.**

N/A

Allowed for execution of work : **12 Months**

Authority to decide:

(i)	Extension of time	:	Institute Engineer
(ii)	Rescheduling of mile stones	:	Institute Engineer
(iii)	Shifting of Date of start in case of delay in handing over of site	:	Executive Engineer

Clause 6 : Applicable (Computerized MB)

Clause 7

Gross work to be done together with net payment /adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment: : Minimum Rs. 30 Lakhs for Civil Works
Minimum Rs. 30 Lakhs for Electrical Works
Minimum Rs. 10 Lakhs for Air Conditioning Works

Clause -7A : **As per Institute Policy**

No running account bill shall be paid for the work till the applicable labour licences, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are submitted by the contractor to the Engineer-in-Charge

Clause 10A

List of testing equipment to be provided by the contractor at site lab : **Not Applicable**

Clause 10B : **Not Applicable**

Clause 10C

Component of labour expressed as percent of value of work**: 25%** for Civil work

15% for Electrical & AC work

Clause 10CA **: Not Applicable**

S.No.	Material Covered under this clause	**Nearest Materials (other than cement, reinforcement bars and the structural steel) for which All India Wholesale Price Index to be followed**	**Base Price of all Materials covered under clause 10 CA* (July 2022)**
1.	Cement	**Not Applicable**	
2.	Cement		
3.	Reinforcement bars		
4.	Structural steel		

Clause 10CC

Clause 10 CC to be applicable in contracts with stipulated period of completion exceeding the period shown in next column **Not Applicable**

Clause 11

Specifications to be followed for execution of work	:	**CPWD specifications 2019 Vol I and Vol II for civil work & CPWD specifications 2024 for General Specifications for Heating, Ventilation & Air-Conditioning (HVAC), CPWD General Specifications for Electrical Works Part-I Internal 2023, Part-II Internal 2023, Part-III-Lift & Escalators 2003, Amendment-1, Part-IV Sub Station 2013.** with upto date correction slips & manufacturers Specifications upto the last date of bid submission/uploading of tender. Detailed nomenclature of items & specifications for market rate items as per Engineer-in-charge

Clause 12	
Type of work	Maintenance/ Up-gradation work
Clause 12.2, 12.3 & 12.5 shall apply for maintenance works	100%

Clause 16

Competent Authority for deciding reduced rates : Institute Engineer

Clause 18

List of mandatory machinery, tools & plants to be deployed by the contractor at site : As per requirement

Clause 25

Constitution of Dispute Redressal Committee (DRC)	
Chairman	NIL
Member	
Member	

Note: The above constitution of the Dispute Redressal Committee is subject to change, for which necessary notification shall be issued by the competent authority of the department, if required.

Clause 32

Requirement of Technical Staff(s) & Recovery Rate

Cost of Work (Rs. In Crore)	**Requirement of Technical Staff**		**Minimum Experience (Years)**	**Designation of Technical Staff**	**Rate at which recovery shall be made from the Contractor in the event of not fulfilling**
	Qualification	Number (of Major + Minor component)			
More than 5 to 10	Graduate Engineer	1	5(and having experience of one similar nature of work)	Project Manager	Rs. 25,000/- per month
	Graduate Engineer or Diploma Engineer	1+1	2 or 5 respectively	Project/Planning / Quality/ billing Engineer	Rs. 15,000/- per month per person

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

Diploma Holder with minimum 10 years relevant experience with a reputed construction company can be treated at par with graduate Engineers for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50 % of requirement of degree Engineers.

SCOPE OF WORK

The following quarters/buildings/services (except exclusions) are covered for maintenance under the scope of this contract.

1.0 There are 16 nos. of Hostels and various Area under jurisdiction of IIT Delhi which comprises of:-

S No.	Type	Type of Quarters/ Bungalow	No. of Quarters	Plinth area / quarter	Plinth Area in Sqm
1		**New Nalanda**	103	72.69	7488.00
		Total Houses	**103**	**Total A**	**7488.00**
2	Hostels Area	Shivalik Hostel	1		5649.00
3		Vindhyachal Hostel	1		5649.00
4		Jwalamukhi Hostel	1		5635.00
5		Aravali Hostel	1		5635.00
6		Karakoram Hostel	1		5635.00
7		Nilgiri Hostel	1		5635.00
8		Kumaon Hostel	1		8426.00
9		Satpura Hostel	1		11280.00
10		Boys Hostel - D (Udaigiri & Girnar Hostel)	1+1		35545.32
11		Zanskar Hostel (Hostel B)	1		8694.56
12		Dronagiri (G+7) & Saptagiri Hostel (G+7)	1+1		34496.00
13		Kailash Hostel	1		10532.00
14		Himadari Hostel	1		18000.00
15		Shyadri Hostel	1		11696.00
				Total B	**172507.90**

Note : These quarters are situated within IIT Delhi Campus.

2 Services to be maintained by contractor

2.1 i) Main, arterial roads and path ways of the colony and bungalows including berms and Foot paths.

ii) All open and covered storm water drains.

iii) Scavenging of the hostels and quarters/flats, common staircase, verandahs, corridors, cleaning of roofs/ common terraces.

iv) Periodical cleaning of rain water harvesting pits.

v) Common toilet etc., Dustbins, signage boards etc.

2.2 All sewer lines i/c all manholes.

3.0 General specifications of structure-

3.1 The common & general specifications for accommodations are mentioned below for guidance only.

Structure- RCC framed structure/ Masonry Structure
Masonry- Brick work in cement mortar.
External plaster- Exposed brick work/Cement plaster.
External Finishing- Finishing with colour wash / Premium Acrylic external paint.
Internal Finishing- Acrylic Distemper / Acrylic emulsion Paint.
Doors- Wooden/PVC/Aluminum.
Windows- Wooden with MS grills, NCL windows with M.S grill, UPVC windows with SS grill
Flooring- a. Rooms - Vitrified tiles/Wooden/ Mosaic / Kota stone/C.C
b. Washrooms & Kitchen - Ceramic tiles.
c. Corridors –Kota/Granite stone.
Miscellaneous- (1) PVC terrace tank / OHT at Various locations

(2) RCC Under Ground Tank – Drinking purpose/Firefighting
(3) Flushing cistern of vitreous china and PVC
(4) White vitreous China Indian and European WC pans.
(5) Stainless Steel & Vitreous china clay kitchen sink and wash basin respectively.
(6) Water supply- (a) G.I. & CPVC lines 15mm dia to 50mm dia along with all required CP fittings.
(7) Sewage- S.C.I. pipes, UPVC 80mm and 110mm dia. with all requisite fittings up to gully traps. Further sewage lines are of SW pipes of from 100mm to 300 mm

3.2 **Boundary wall-** Brick masonry wall
Height- 1.50 to 1.9 meter above G.L.
Finishing- Cement plaster/Exposed brick work

4. Following Type of Works included in the estimate.

4.1 Civil works

4.1.1 Day to Day Maintenance- It shall consist of the following operations:-

(i) Receiving, recording, distributing & updating the day to day complaints at maintenance Service Centre through ERP
(ii) Attending the daily complaints with required labour & material etc.
(iii) Monitoring of receipt, distribution, attending the complaints.
(iv) Other misc. operations as referred in schedule of quantity for day-to-day maintenance.
(v) Running and maintenance of IITD Service Centre.
(vi) Safety & security of govt. assets & vacant quarters.
(vii) Cleaning of overhead tanks both RCC and PVC tanks twice in a year and mentioning the date of cleaning on the tanks.

4.1.2 Annual Repair and Maintenance works

It shall consist of following annual repair works carried out annually for hostels areas:-

(i) Finishing works like white washing, distempering, painting etc.
(ii) Internal and external finishing of hostels as per requirements.
(iii) Cleaning of terrace tanks.
(iv) Other misc. items as per schedule of quantity & as per requirements.

SPECIAL CONDITIONS

B1. FOR ALL CIVIL AND E & M SUB-HEADS

1.0 Non-Judicial stamp paper worth **Rs. 100/- (Hundred Rupees only)** will be submitted by the contractor, which will have to be signed as a token of acceptance.

2.0 No T & P will be supplied by the Institute, and the contractor will have to make their own arrangements.

3.0 The contractors are advised to get acquainted with the proposed work, including specifications & its site and additional conditions, carefully before quoting. No claim of any sort shall be entertained on account of any site conditions and ignorance of specifications & additional conditions. The work shall be carried out as per the availability of the site.

4.0 The work shall be carried out as per CPWD specifications for Civil work 2019 Part-I & II with up – to date correction slips unless otherwise specified in the nomenclature of individual item or in the specification, additional conditions where specifications are silent, as the decision of Engineer-in-Charge shall be final and binding on contractor & CPWD General Specifications for Electrical Works Part-I (Int.) 2023, Part-II (Ext.) 2023, as amended up to date, relevant I.E. Rules, BIS/IEC and as per directions of Engineer-in Charge. These additional specifications/conditions are to be read in conjunction with the above and in case of variations; specifications given in these additional conditions shall apply. However, nothing extra shall be paid on account of these additional specifications and conditions, as the same are to be read along with the schedule of quantities for the work.

5.0 The rates quoted by the contractor shall be taken as net and nothing extra shall be paid on any account i.e., Royalty, Cartage, GST & stacking of material required at places, etc. The rates for different items of work shall apply for Heights & Depths, Leads & Lifts, unless otherwise specified in the agreement or specifications applicable in the agreement.

6.0 Any damage done by the contractor to any existing item / any part of the building during the course of execution of work shall be made good by at his own cost.

7.0 Articles manufactured by the reputed firms as per the approved make list and as approved by the Engineer-in-charge shall only be used at work.

8.0 The sample of material required in the work brought to the site shall be submitted before use on the item of work. Technical specification of the individual item and got approval of material from the Engineer–in–Charge before use in the execution of work.

9.0 **The sample of material required for Testing shall be provided at free of cost by the contractor. Testing charges, if any, shall be borne by the IITD if a satisfactory report and if test results are unsatisfactory, then testing charges shall be deducted from the bills of the contractor. All other expenditure to be incurred for taking a sample, conveyance, packing, etc., shall be borne by the contractor.**

10.0 The contractor shall submit a detailed program of work within 3 days of the date of award of work. The Engineer–in–Charge can modify the program, and the contractors have to work accordingly.

11.0 The contractor shall make his own arrangements for getting the permission with respect to trucks from the Traffic Police.

12.0 No payment shall be made to the contractor for any damage caused by the rain, snowfall or any other natural causes whatsoever during the execution of work.

13.0 Some restrictions may be imposed by the security staff of IIT Delhi, etc., on the working and or movement of labour& material. **No labour camp/ huts shall be allowed in the IIT Campus. The contractor shall make his own arrangements for labour huts outside the campus.** However, constructions of cement godown and Chowkidar's hut in the Campus shall be permitted. The contractor shall be bound to follow all such restrictions/ instructions, and nothing shall be payable on this account.

14.0 The contractor shall be fully responsible for the safe custody of the material issued or brought to the site by him for doing the work.

15.0 The Malba / Garbage generated at the site due to construction activities shall be removed from the site immediately & shall be disposed of by the contractor to the approved dumping site of MCD, and all statutory approvals from local bodies shall be the sole responsibility of the contractor.

16.0 The contractor shall clean the site thoroughly of scaffolding materials, rubbish, equipments left out of his work & dress the site around the building to the complete satisfaction of the Engineer-in-Charge before the work is treated as completed.

17.0 Contractor has to quote against the item of the schedule of credit of material. The contractor cannot quote either minus rate or Zero rate for these items.

18.0 Income tax and other taxes as applicable shall be deducted from the bills of contractor.

19.0 1% labour cess or as applicable will be deducted from the bills of contractor.

20.0 Water charges @1% and Electricity charges @0.50% of gross work done shall be deducted from bills of contractor if electricity and water provided by IIT Delhi.

21.0 Agency has to take proper safety major during the execution of work.

22.0 **GCC form 7/8 shall form part of NIT and the bidder shall go through GCC 2023 of CPWD before quoting rates and the same shall be deemed to be accepted by bidder if he participates in the tender.**

23.0 ESI & EPF shall be reimbursed as per norms on production of original receipt of ESI & EPF from contractor specific to this work. .

24.0 The contractor shall submit the programme of execution of work as per clause 5 of GCC of IIT form 7/8 of NIT including list of workers to be deployed by contractor for this work.

25.0 Contractor shall be responsible for keeping site free of any kind of mosquito breeding. If it is found that breeding is taking place the entire responsibility shall be of contractor to bear challan etc. done by local bodies.

26.0 GST shall considered as inclusive in quoted rate of agency.

27.0 E& M work will be executed only through the agency who is having valid electrical license, and a copy of the valid electrical license will be submitted before the start of work.

28.0 Full quantity or quantity as decided by Engineer-in- Charge of the materials such as paint, Acrylic emulsion paint, Acrylic distemper etc. shall be deposited in sealed containers in advance before use. Packing size shall be decided by Engineer-in-charge.

29.0 The contractor shall have to get approved the brands / shades of Acrylic Distemper, Synthetic Enamel Paint, Acrylic Emulsion Paint, Exterior Paint etc. from the Engineer-in-Charge and also shall be got checked by the Engineer-in-Charge or his authorized representative on receipt of it at site before execution of the same.

30.0 The materials required for the day's work shall be issued to the contractor or his authorized representative daily by the JE / AE -AE-in-charge of the work. Any balance of the material left at the end of the days of work and the empty containers shall be returned to JE / AE. The day to day issue account of the materials shall be maintained by the Junior Engineer-in-Charge and shall be signed daily by the Contractor or his authorized agent in token of receipt of the materials failing which no payment of bill shall be made to the Contractor. The empty containers shall not be removed from the site of work without written orders of the Engineer-in-charge.

31.0 Before the commencement of work, the contractor shall prepare one sample as instructed by the Engineer-in-charge. After the sample is approved by the Engineer-in-Charge, the Contractor shall be allowed to commence the work and the quality of work shall confirm to the approved sample.

32.0 In case the Site (Flats/quarters/Rooms etc.) are not made available to the Contractor according to the programme, the Contractor shall not be entitled for any claim for idle labour or any other claim on any account what-so-ever.

33.0 No payment will be made to the Contractor for damage caused by rains during the execution of the works and no claim on this account will be entertained.

34.0 Scrapping shall be shown to the representative of Engineer-in-charge and got approved and test checked by him prior to painting or other finishing work.

35.0 To avoid disputes later on, contractor is advised to get the measurement recorded within a week's time and shall submit his bills as per relevant clauses of contract. Any dispute regarding measurement including work done shall be judged within a week's time failing which measurement, certified and recorded, shall be entertained.

36.0 All doors, windows, floors, furniture, electrical fittings and other articles shall be protected from dust, splashes & damage Splashes & droppings from white washing, colour washing, distempering painting etc. on walls, floors, doors and window, down take pipes/furniture shall be removed by the

Contractor at his own cost and the surface cleaned simultaneously after the completion of the day's work is done, without waiting for the actual completion of the other items of work of the contract.

37.0 The Contractor shall comply with the provisions of 'Construction and Demolition Waste Management Rules, 2016' as notified by the Ministry of Environment and Forest vide notification dated 29.03.2016 (available at web address www.moef.gov.in).

38.0 **For some of the specific nature of work, such as anti-termite treatment and waterproofing work, contractors who associate with specialized agencies / specialized firms executing the work give a specific guarantee that they are responsible for the removal of any defects cropping up in these works executed by them during the guarantee period.**

a) The form of the guarantee to be executed by the contractors is given as per annexure attached.

b) 5% of the amount pertaining to anti-termite treatment and waterproofing work as security deducted from the bills of the contractors is refunded after expiry of maintenance period in accordance with the terms of the contract on this behalf.

39.0 During execution of work, water supply, installations/fittings & sanitary, installations/fittings, will be dismantled/demolished for which nothing extra shall be paid except the items already exist in the schedule of quantities (civil) attached.

40.0 Any cement slurry added over base surface (or) for continuation of concreting for better bond is deemed to have been included in the items and nothing extra shall be paid on this account.

41.0 If in the description / nomenclature of item the thickness of board / ply is mentioned 18mm thick and manufacturer does not provide / manufacture 18mm thick board / ply then 19mm thick board / ply can be used there, for that nothing extra shall be paid on this account, vice versa.

42.0 **Specialized Work:**

The following works are considered as specialized work.

(a) Water proofing treatment work.

(b) Post construction Anti-termite chemical treatment.

(c) Structural Repair /Retrofitting work.

(d) HVAC work.

(e) RO and Lift work.

43.0 The above specialized work shall be carried by specialized agencies/agencies on their own if they have experience of

(a) 03 similar work of 40% value of the specialized work component of the tendered amount.

(b) 02 similar work of 60% value of the specialized work component of the Tendered amount.

(c) 01 similar work of 80% value of the specialized work component of the Tendered amount.

44.0 That it is expressly understood and agreed between the parties to this Agreement that the persons deployed by the contractor for the services mentioned above shall be the employees of the contractor for all intents and purposes and that the persons so deployed shall remain under the control and supervision of the contractor and in no case, shall a relationship of employer and employee between the said persons and the IITD shall accrue/arise implicitly or explicitly.

45.0 That on taking over the responsibility of providing Contractor's Worker, the contractor shall formulate the mechanism and duty assignment under intimation to the Engineer-in-charge. Subsequently, the contractor shall review work arrangements from time to time. The contractor shall further be bound by and carry out the directions/instructions given to him by the Engineer-in-charge in this respect from time to time.

46.0 That the Engineer-in-charge or any other person authorized by him shall be at liberty to carry out a surprise check on the persons so deployed by the contractor to ensure that the persons deployed by him are doing their duties.

47.0 That in case of the persons so deployed by the contractor does not come up to the mark or does not perform his/her duties properly or indulges in any unlawful activities or riots or disorderly conduct, the contractor shall immediately withdraw and take suitable action against such persons on the report of the Engineer-in-charge. Further, the contractor shall immediately replace the particular person so deployed on the demand of the Engineer-in-charge, in case of any of the aforesaid acts on the part of the said person.

48.0 That the contractor shall particularly abide by the provisions of the Minimum Wages Act, 1948. Minimum wages shall be paid by the Agency / Contractor at the rate fixed by Central Govt. of India / IIT Delhi from time to time. Arrears, if due as result of the increase in minimum wages would be reimbursed to the contractor on submission of proof of actual payment to the worker. In case of half yearly increase in Minimum wages by the Central Govt. of India, the contractor will submit copy of gazette notification to the Institute and the same may be considered by the Institute.

49.0 The contractor shall take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct or acts of his employees so deployed.

50.0 That the contractor shall deploy his persons in such a way that they get weekly rest. The working hours / leave, for which the work is taken from them, do not violate the relevant provisions of the Act. The contractor shall in all dealings with the people in his employment have due regard to all recognized festivals, days of rest and religious or other customs.

51.0 That the contractor shall keep the IITD indemnified against all claims whatsoever in respect of the employees deployed by the contractor. In case any employee of the contractor so deployed enters in dispute of any nature whatsoever, it will be the primary responsibility of the contractor to contest the same. In case IITD is made party and is supposed to contest the case, IITD will be reimbursed for the actual expenses incurred towards Counsel Fee and other expenses which shall be paid in advance by the contractor to IITD on demand. Further, the contractor shall ensure that no financial or any other liability comes on IITD in this respect of any nature whatsoever and shall keep IITD indemnified in this respect.

52.0 The Work is to be carried out for stipulated period of time and may be extended further as desired by Engineer-in-charge.

53.0 Institute reserves the right to remove any person deployed by the firm, without assigning any reason/notice. This will be without prejudice to the right of the contractor to remove any of his own employees deployed in the Institute.

54.0 **The contractor shall deploy 01 (One) No. Technical Supervisor should be passed Degree or Diploma in Electrical / Degree with 4-year / 6 Years experience respectively, 01 No System operator should be graduate with any degree or 01 year diploma in computer application from recognized organization, 04 (Four) Nos Grade -1 worker should be ITI in respective field or 5 year experience in relevant field, 02 (Two) Grade – II, 01 (One) Grade – III should be 3 year experience in relevant field, 06 (Six) Nos. Mechanic should be passed ITI course / Wireman license holder, and 06 (Six) Nos. Helpers for smooth operations of Electrical Work.**

55.0 **The contractor shall deploy 07 (Seven) Nos. Mechanic / Lift Operators, the Mechanic / Lift Operators should have passed ITI course, and 02 (Two) Nos. Helpers for smooth operations of Lift Recue and Lift Operations.**

56.0 That the contractor shall submit details of the names, parentage, residential address, age, educational qualifications, experiences, etc. with photocopies of documents of the persons deployed by him in the premises of the IIT Delhi for the purpose of proper identification and category of the employees of contractors deployed at various points/sections. He should issue identity cards bearing their photographs / identification, etc. & identify police verification of the person deployed by him and such employees shall display their identity cards at the time of duty.

57.0 The contractor shall ensure that the people are punctual and disciplined and remain vigilant in the performance of their duty.

58.0 That the contractor shall be required to maintain a permanent Attendance Register in addition to Biometric Attendance (Face detection type provided by IIT Delhi) at the IITD premises, which shall be open for inspection and checking by the authorized officers of the IITD.

59.0 That the contractor shall make the payments of wages (not less than minimum wages as and when declared by the Central Govt of India), etc. to persons so deployed on monthly basis through Bank Transfer / Electronic mode on or before 07th day of every month. Wages shall include bonus @ 8.33% of daily wage of the particular worker multiplied by number of days work actually performed by the worker in a particular month, which shall also be shown separately on the wage sheet of the worker. The monthly Bonus of the worker shall be paid as per GoI orders with up-to-date amendments prevailing in the particular month.

60.0 **However, the basic rates of wages as per latest notification by Central Govt. of India shall be considered as @ Rs. 1065/- per day for Technical Supervisor, Rs. 981/- per day for Mechanic / Skilled Man, @ Rs. 893/- per day for Semiskilled / Fitter / Gittiman and Rs. 805/- per day for Helper.**

61.0 Attendance comparative sheet shall be prepared by the contractor and to be submitted to the Engineer-in-charge after completion of every month as per duty chart, desired days of duty of a particular workers allowing weekly off and actual days of duty performed by the said worker. Summation of the two columns should tie in normal case.

62.0 The contractor shall depute workers for all 365 day in 01 Year of the contract period except weekly off. In case of any emergency the contractor will have to supply extra manpower on Sunday/ Holidays as per requirement and if any worker is absent from the duty then Rs. 500/- for Highly-Skilled (Supervisor/ Computer Operator), Rs. 300/- for Skilled (Carpenter, Plumber, Mason, Welder), Rs. 300/- for Semi-Skilled (Painter/ Polisher/ Glazier, Pump/ Valve Operator, Sewer man) and Rs. 300/- for Unskilled (Helper), per person per day recovery shall be done in addition to non payment of these absentees in running bills & final bill**.**

63.0 A consolidated wage sheet containing the names of all workers so deployed by the contractor duly signed / acknowledged by the workers after disbursal of wages to be submitted to the Engineer-in-charge every month. Proof of disbursal of wages to be submitted before claiming bill. The wage sheet shall contain mandatory fields as per the following: (1) Sr. No., (2) Name of the worker, (3) Actual days of duty performed, (4) Total wages, (5) Bonus amount, (6) EPF contribution, (7) ESI contribution, (8) Total deductions, (9) Net wages received / disbursed, (10) Signature of the worker.

64.0 In case of any emergency/breakdown or in case of absentee of staff, the worker(s) on duty shall perform the extra duty to maintain the essential services. However, the total number of days in a month shall not exceed the total number of staff in a particular category of post multiply by actual working days in that particular month.

65.0 In case of delay of payment of wages beyond 10 days as specified, IIT Delhi shall arrange for payment to the workers at risk and cost of the contractor. The decision of the Engineer-in-charge in this regard shall be full & final and binding upon the contractor.

66.0 It would be the responsibility of the contractor to arrange all permission/ approvals from all local bodies/statutory bodies and nothing extra shall be paid on account of this by the Institute.

67.0 The contractor shall deploy manpower in consultation of the Engineer-in-charge. Duty shall be assigned in different shifts by the Supervisor of the contractor, and he will control and look after the duties of the operators. No shift shall be void of any operator and contractor shall arrange and substitute another operator in case of absence of any operator(s). However, the department shall not pay any extra for this arrangement / substitution.

68.0 EPF & ESI contribution in respect of workers shall be deposited with the authority concerned in time and employer's share shall be reimbursed to the contractor by IIT Delhi on production of proof of deposition. The monthly EPF & ESI contribution of the worker shall be paid as per GoI order with up-to-date amendments applicable in the particular month. However, Income Tax as applicable shall be deducted from the EPF & ESI contribution reimbursement bill of the contractor.

69.0 RESCUE OPERATION OF THE 29 NOS LIFTS

Scope of work includes:

i. Operation and Rescue operation of Lift
ii. Cleaning of Lifts.
iii. Repair & Maintenance of electrical installations (Installed in Lifts and Machine rooms)
iv. Repair & Maintenance of ceiling fans, exhaust fans. (Installed in Lifts and Machine rooms)
v. Repair & maintenance of Electrical boards in machine room/control room.
vi. Minor repair work of Lifts.
vii. Any others work assigned by JE /AE/AEE
viii. Stationary required/Logbook of lifts submitting daily/ weekly/ monthly/ yearly report shall be provided by the contractor.
ix. All measuring instruments to note down the reading wherever measuring meters are not installed shall be provided by the contractor. Work shall be carried out as per preventive maintenance

schedule. (One job means to carry out the above work by deputing above specified staff for one month as per duty chart.)

70.0 ADDITIONAL TERMS & CONDITION FOR CAMC OF LIFTS

i. All the works shall be carried out as per CPWD specifications, Indian Electricity Rules-1965 amended up to date and to the entire satisfaction of Engineer-in-Charge.
ii. Comprehensive, preventive, periodic and fault-based maintenance & repair of different make & Capacity of 104Nos passenger / goods lifts including replacement of all required parts complete as required.
iii. The technician/lift maintenance staff of the OEM shall make entries in the logbook of the service and other works carried out by him. The lift mechanic of the company shall certify in the logbook that the lift "is fit for use" and that the entire safety devices are working properly. The technician / maintenance staff shall also mention his name with dates and time in the logbook.
iv. No T&P will be issued to the contractor for the work.
v. In the event of mishap/accident caused not due to the user lift/operator fault/ misuse but due to in-proper or non-maintenance of lift then the firm shall be responsible.
vi. The department (IITD) shall not have any responsibility or liability in case of any accidental injury to the personnel of the contractor at the work site or to the general public at the work site due to the miss-handling of equipment by the personnel of the contractor or any other similar reason. The responsibilities and liabilities for such accidents and incidents shall be borne by the contractor.
vii. Break down calls shall be attended to immediately, even after office hours, holidays & Sundays within the shortest possible period.
viii. Recovery will be made on a proportional/pro-rata basis for any number of days beyond above, if the lift remains out of order. The rates of recovery shall be made as per the SLA attached on a case-to-case basis.
ix. Fortnightly & monthly lift service are to be carried out on a regular basis as preventive maintenance.
x. It is the responsibility of the Firm to check the Installation periodically by authorized and experienced maintenance personnel at least once a month. Any type of defects & Irregularities noticed in the Lift Installation; the Firm should rectify the same immediately.
xi. The defective spares replace by the Firm will be the property of the Firm and will be returned to them with proper challan or receipt issued by the Junior Engineer-In-Charge at site.
xii. Lift is an essential & important part of a high rise Building so special care should be taken for safety, comfort and trouble-free run of the lifts. The Firm should ensure its best performance and service for Bonafide.
xiii. The Firm should send their maintenance personnel as soon as information received regarding breakdown or irregularities of the Lift noticed by the Operational Staff or site Engineer-In- Charge or Client / Department personnel.
xiv. The Firm should send their maintenance personal and Supervisor at least once in a month to check the installation properly and examine the lubricant, adjustment of all moving parts of Car & sill level, replacement of any defective worn out parts for smooth functioning of their Lift.
xv. It is the responsibility of the Firm to check the following important parts and give a satisfactory certificate of the installation: a) Controller- complete with its all mechanical, electronics and electrical component. b) Breaks-Break magnet including electrical and mechanical components. c) Over speed governor with electrical and mechanical components. d) Ropes79 Checking the tension of main ropes and its physical condition, if there are any irregularities adjusting it properly or replace immediately if reqd. e) proper checking of Governor Rope should be done. f) Guide rails and guide shoes, counterweight trailing cable, landing gate lock, safety switch, door switch bolts etc. should be checked properly. g) Pit Equipment –Governor Bottom pull, selector pulley buffer spring should be checked properly. h) Car Equipment – All car equipment's like door motor driven pulley and "V" bolts safety switch and car control panel stop swatch car indicator should be checked properly. i) The Firm should submit their periodically maintenance chart or schedule and the frequency of checking for examination of Lift components along with the tender.

xvi. In case of a major breakdown the Firm will have to fix a time schedule for rectification/repair job, if it is more than 04(four) days recovery will be made on pro-rata basis for the entire breakdown period.

xvii. Contractor will provide 2Nos Electric Vehicle / Scooter will be parked at control room of IIT Delhi. The vehicle should be properly maintained and remain parked in the control room. These vehicles will be utilized only for rescue operations by the rescue team and shall not be utilized for any other process. The charges for these two electric vehicles shall be borne by the contractor.

71.0 ADDITIONAL TERMS & CONDITION FOR CAMC REVERSE OSMOSIS PLANT

1. Reverse Osmosis [R.O.] will be repaired within 24 Hrs and panels will be replaced within 8 Hrs. Otherwise a penalty of Rs. 500/day will be imposed on the firm for machine shutdown and Rs. 300/day for panels delay in replacement.
2. SCOPE OF WORKS

A) Following T & P/instrumentation shall be provided by the contractor to every mechanic and for workshop.

i) Plier (Taparia) = 01 no.
ii) Screw Driver (Set) = 01 no.
iii) TDS meter = 01 no.
iv) Tool bag = 01 no.
v) Wrenches Set = 01 no
vi) Slip joint plier = 01 no
vii) Adjustable Pipe wrench = 01 no
viii) T socket wrench (10mm) = 01 no
ix) Tester = 01 no
x) Ampere meter = 01 no.

B) Back wash will be done in every 15 days
C) Motors installed in R.O. will be replaced by the Specialized Agency of contractor
D) Filters of the membrane should be cleaned / changed on every 2 months or as required on site.
E) R.O. tanks are needed to be cleaned at regular intervals of 15 days
F) All accessories and fittings for the reverse osmosis systems will be provided and installed by the agency.
G) Membranes will be cleaned / changed by the contractors as and when required or changed if TDS increase more than 150 TDS.
H) All complaints regarding reverse osmosis systems will be attended by the contractor's staff.
I) T.D.S. value of water will be regularly maintained during site visits and maintenance of log book by service mechanic.
J) During the execution of the Comprehensive Contract the contractor has to provide the below material as and when required for the smooth functioning of the Reverse Osmosis Plant.:-

i. High Pressure Pump, 1.5 KW / 2 HP
ii. Low Pressure Pump 0.5 HP
iii. CPVC/UPVC all fitting as required on site (all sizes including pipes) i.e. union, elbow, tee, socket, bush, FT, MT, float valve, etc.
   (a) Union
   (b) Elbow
   (c) Tee
   (d) Socket
   (e) FT
   (f) MT
   (g) Float valve
iv. Membrane 4040
v. Membrane Housing 4040
vi. Membrane 80 GBD
vii. Control Panel
viii. Flow Meter

ix. Big blue filter housing 20”
x. Big blue filter 20” size
xi. PPS Spun Filter 20”
xii. Housing of spun filter 20”
xiii. Pressure Gauge Gel based
xiv. Multi port valve 20”
xv. Vessel 1354 Big
xvi. Solenoid valve 230 volt
xvii. Solenoid valve 24 volt
xviii. Low pressure Switch LPS
xix. Carbon activated 900ID, 50KG For 1 year.

K) The above material mentioned in Sl. No. 10 shall be provided by the contractor on as and when requirement basis, the providing and fixing cost of the above items shall be included in the comprehensive maintenance contract. No additional payment shall be made against the providing and fixing of the above items.

L) Any Kind of maintenance required for smooth running of the unit shall also be carried out by the firm & nothing extra shall be paid on this account. In case of Breakdown of any unit, the contractor will attend the same within 08 hrs.

72.0 ADDITIONAL TERMS & CONDITION FOR CAMC OF SOLAR WATER HEATER SYSTEM.

a. Solar water heater system shall be repaired within 24 Hrs, Otherwise a penalty of Rs. 1000/day shall be imposed on the contractor for not attending the same within stipulated time.
b. Any Kind of maintenance required for smooth running of the Solar water heater system shall also be carried out by the firm & nothing extra shall be paid on this account. In case of Breakdown of any unit, the contractor will attend the same within 24 hrs.

73.0 ADDITIONAL TERMS & CONDITION FOR ELECTRICAL WORKS.

SCOPE OF WORKS

Scope includes the following:

• Repair / Replace, Service and maintenance of Electrical installations.
• Repair / Replace, Service and maintenance of Ceiling fans & Exhaust fans.
• Repair / Replace, Service and maintenance of Street lights & Security lights.
• Any other work assigned by AE/JE.
• Daily routine work.

a. Checking of Main Board, Sub-Main Board, DB’s, LT panel.

b. There is no sign of heating up burning smell Discoloration or Sparking, over loading, Lose Termination, Highly Unbalance Loading of current, Earthing, No Light and temporary wiring etc.

• Annual check-up.
• Checking and clearing of fitting and checking of suspending arrangements.
• Checking and clearing of Ceiling fans and checking of spilt pins suspending arrangement.
• Down roads, noise of fan, fixing of fan blades, wobbling etc.
• Maintenance and repairing of E.I in east campus area including maintenance of main board
• DB’s fault finding, testing checking and rectification of fault of power points/fan points.
• Replacement of MCCBs, MCB, Switches, Thimbles etc. and any other work assign by Engineer in-charge / AE.

Following T & P instrumentation shall be provided by the contractor to his staff.

1. Electric tool kit set for all the mechanics
2. Meager-500 volts = 01 Nos.
3. Tong tester = 01 Nos.
4. Box spanner = 01 Set.
5. Allen key set = 01 Set.
6. D-Spanner set = 01 Set.
7. Ring Spanner set = 01 Set.

8. Earth Tester = 01 Set.
9. Lux Meter = 01 No.
10. Insulated Hand Gloved = 02 set.
11. Gum boot = 02 set.
12. First Aid Box = 01 set.
13. Umbrella = 05Nos.

B.2 MANPOWER REQUIREMENT AND ITS CONDITION

1. A minimum number of workers like Computer Operator / Mason / Carpenter / Sewer Man / Sweeper etc. shall be provided on daily basis as follows:

A) **Day to day maintenance works (For Civil Work)**

I	**For Running and Maintaining of Maintenance**		
1	System Operator	1	
II	**For attending Day to day complaints**		
Sl. No	Staff	9 AM to 5:30 PM	2 PM to 10 AM
		BHM (M-IV)	BHM (M-IV)
1	Mason	1	-
2	Carpenter	1	-
3	Plumber	1	1
4	Sewer man	1	1
5	Beldar	1	-

The duty hours of the workers can be changed by the Engineer-in-charge as per requirement of site.

B) **Day to day maintenance works (For Electrical Work)**

For attending Day to day complaints.									
Sr. No.	Name of Building	A-Shift		B-Shift		C-Shift		General Shift	
		6 AM to 2 PM		2 PM to 10 PM		10 PM to 6 AM		9 AM to 5:30 PM	
		Mech	Help	Mech	Help	Mech	Help	Mech	Help
	For Maintenance								
1	Nilgiri (Boys Hostel)	1	1	1	1	1	1	1	1
2	Karakoram (Boys Hostel)								
3	Aravali (Boys Hostel)								
4	Jwalamukhi (Boys Hostel)								
5	Kumaon (Boys Hostel)								
6	Vidhyachal (Boys Hostel)								
7	New Nalanda Hostel (PG Students)								
8	Shivalik (Boys Hostel)								
9	Zanskar (Boys Hostel)							1	1
10	Satpura (Boys Hostel)								
11	Girnar (Boys Hostel)								
12	Udaigiri (Boys Hostel)								
13	Saptagiri (Boys / Girls Hostel)								
14	Dronagiri (Boys / Girls Hostel)								
15	Himadri Hostel (Girls Hostel)								
16	Kailash Hostel (Girls Hostel)								
17	Shyadari Hostel (Girls Hostel)								
	Total	1	1	1	1	1	1	2	2
	Total for Hostel Mechanic with Reliever	5	1	6					
	Helper with Reliever	5	1	6					

	For Lift Operation.	Operator	Helper	Operator	Helper	Operator	Helper
1	New Nalanda Hostel (PG Students)	1		1		1	1
2	Girnar (Boys Hostel						
3	Udaigiri Boys Hostel						
4	Saptagiri Boys/ Girls Hostel						
5	Dronagiri (Boys/ Girls Hostel						
6	Himadari Hostel (Girls Hostel)	1		1		1	1
7	Shyadari Hostel (Girls Hostel)						
	Total	2	0	2	0	2	2
	Total for Hostel Operator with Reliever = 6 + 1 = 7 Helper with reliever = 2+ = 2						

C) **Day to day maintenance works (For Air- Conditioning Work)**

- As per BOQ

2. The newly allotted flats / quarter/ rooms will be made habitable by minor repair of doors, windows, walls, floors, sanitary and water supply fittings, internal distempering and painting of doors, windows, within 7 days from the day of taking over the technical possession. Failing which without reasonable reason, Rs. 200/- per quarter/room (type-I, II and III) will be recovered from the agency.
3. All steel doors, windows, which require welding work and also require replacement of old wire mesh & any member / Section will be replaced under repair & maintenance without any extra payment.
4. During the water supply distribution period in the morning and evening plumber will check the tanks for overflow and leakage from tanks of PVC or R.C.C. and simultaneously attending the overflow and wastage of water immediately.
5. As per norms of up-gradation, European WC provided with Jet Spray will be repaired or replaced in general repair and maintenance work without any extra payment, and replacement of un-repairable items of water supply or plumbing works will be as flats/quarter type-wise fittings as in up gradation norm.
6. During cleaning of choked sewer pipe, drain, water closet wash basin floor trap etc, inside the quarter, the malba will be removed immediately outside the quarter. During cleaning the gully traps, rain water chamber, manholes, sewer line, drains, soil waste and rain water pipes, the malba will be removed after one day from the day of cleaning, failing which recovery@ Rs. 700/- day per flat / quarter of each type, will be recovered from the agency.
7. In the carpentry works any malba / wood waste will be removed immediately. Replacement of old un-repairable fittings to new one according to norms of each type of quarter, entitlement of up-gradation fittings like handle, tower bolt, sliding door bolt, pull bolts, magic eye, safety chain, stay and fastener, curtain rods, drapery rods, M.S. or Aluminium as required under up-gradation norms for each type wise quarter.
8. In the process of regular repair and maintenance work mason should take care of damaged brick work, plaster work, and on the terrace, spouts of rainwater, R.C.C. tanks and pointing area of roof and prone area of seepage from terrace and also repair of vegetation area after removal of plants, shrubs, tree, vegetation regularly irrespective of complaints received from call centre without any extra payment.
9. Any complaint of seepage will be treated as emergent nature and rectified on the same day by full treatment, virtue of replacement of the floor trap, water closet, pointing, and grading by using waterproofing material for the same.
10. Works like removing clogs of drainage pipes, manholes, restoration of water supply, repairs to leaking taps, sweeping of leaf falls, etc. are the facilities to be executed on a daily basis.

Integral Cement Based Water Proofing Treatment

1) The brickbats shall be from well-burnt bricks. The proprietary waterproofing compound shall conform to IS: 2645-1975. Before the execution of work, waterproofing compound has to be brought to the site from which a random sample would be taken and tested, and a certificate of its conformity to IS Code should be produced. The proprietary waterproofing compound shall be added at the rate recommended by the specialized firm, but not exceeding 8% (Eight percent) by weight of cement.
2) The finished surface after waterproofing treatment shall have a minimum slope of 1 in 80. At no point shall the thickness of the waterproofing treatment be less than 65mm.
3) While the treatment of the roof surface is done, it shall be ensured that the outlet drainpipes have been fixed and mouths at the entrance have been added and rounded off properly for easy flow of water.
4) The surface where the waterproofing is to be done shall be thoroughly cleaned with wire brushes. All loose scales shall be removed and dusted off. The surface shall be treated with neat cement slurry admixed with proprietary waterproofing compound to penetrate into crevices and fill up all the pores in the surface. This cement slurry shall be applied at the junction of the parapet and terrace slab by the injection process.
5) After the slurry coat is laid, layer of well burnt brick bats shall be laid in cement mortar of mix as specified by the specialist firm but not leaner than 1:5(1 cement: 5 coarse sand) admixed with proprietary water proofing compound to required gradient and joints filled to half the depth. The brick bat of various thickness shall be used to achieve the specified gradient. This layer shall be rounded at the junction with the parapet and tapered towards top for a height of 300 mm. Curing of this layer shall be done for three days.
6) After curing, the surface shall be applied with a coat of cement slurry admixed with proprietary water proofing compound.
7) Joints of brick bat layer shall be filled fully with cement mortar of mix as specified by the specialized firm but not leaner than 1:4 (1 cement: 4 coarse sand) admixed with proprietary waterproofing compound and finally top finished with average 20mm thick layer of same mortar and finished smooth with cement slurry admixed with proprietary water proofing compound. The finished surface shall have marking of 300 x 300 mm false squares to give the appearance of tiles.
8) Curing of water proofing treatment shall be done for a minimum of ten days.
9) The Measurement shall be taken along with the finished surface of treatment including the rounded and trap portion of junction of parapet wall.

FORM OF WATER PROOFING WORKS
GUARANTEE BOND ON STAMP PAPER

This agreement made this……..day of two thousand…….... between M/s……(hereinafter called the Guarantor of the one part) and the BOG IIT Delhi (hereinafter called the Govt. of the other part).

Whereas this agreement is supplementary to the contract (hereinafter called the Contract) dated…….. made between the Guarantor of the one part and Govt. of the other part, whereby the contractor inter alia, undertook to render the Buildings and structures in the said contract recited completely water and leak proof.

And whereas the Guarantor agreed to give a guarantee to the effect that the said structure will remain waterproof for **Five years** to be reckoned from the date after the maintenance period prescribed in the contract expires.

During this period of guarantee the Guarantor shall make good all defects and for that matter, shall replace at his risk and cost such members as may be damaged by water and in case of any other defect being found he shall render the building waterproof at his cost to the satisfaction of the Engineer-in- Charge and shall commence the works of such rectification within seven days from the date of issuing notice from the Engineer-in-Charge calling upon him to rectify the defects failing which the work shall be got done by the Department by some other contractor at the Guarantor's cost and risk and in the latter case the decision of the Engineer-in-charge as to the cost, recoverable from the Guarantor shall be final and binding.

That if the Guarantor fails to execute the waterproofing or commits breaches hereunder then the Guarantor will indemnify principal and his successors against all loss, damage, cost, expense or otherwise which may be incurred by him by reason of any default on the part of the Guarantor in performance and observance of this supplemental agreement. As to the amount of loss and/or damage and/or cost incurred by the Government the decision of the Engineer-in-charge will be final and binding on the parties.

In witness whereof of these presents have been executed by the Obligor…….and by……. For and on behalf of the BOG IIT Delhi on the day, month and year first above written.

SIGNED, SEALED and delivered by OBLIGOR in presence of-
1.
2.

SIGNED for and on behalf of BOG IIT Delhi by……..in the presence of-
1.
2.

Blanks to be filled by ***Contractor/EE(CD-III)***

Minimum Quality Assurance Plan

1. Maintenance of Material at Site (MAS) Register-

(i) All the MAS Registers, including Cement and Steel Registers, shall be maintained by the Contractor, which shall be issued to the Contractor by the Engineer-in-charge.

(ii) Each entry of receipt of material at site shall be 100% test checked by JE or by AE if there is no JE.

(iii) Each of the entry shall be checked by JE at least twice a week and at least once a week by AE. If there is no JE then MAS registers will be checked by AE at least twice a week.

(iv) Cement Register shall be reviewed by EE at least once in a month.

2. Testing of Material at Site or in Lab-

All expenditure to be incurred for testing of samples e.g. packaging, sealing, transportation, loading, unloading etc. including testing charges shall be borne by the contractor.

TECHNICAL PARTICULARS FOR SUPPLY INSTALLATION TESTING AND COMMISSIONING OF FIRE ALARM AND PUBLIC ADDRESS SYSTEM

1. The new system shall be seamlessly integrated with the existing system of new LH Complex, Multi Storied Building & R.I Park. An undertaking on OEM letter head in this regard shall be enclosed with the Technical Bid.
2. INTELLIGENT FIRE ALARM SYSTEM should have minimum 640 character LCD display. Qwerty keypad and minimum 4000 events & 1000 Alarm history log in the nonvolatile memory (EPROM), The panel shall work in degrade mode in case of CPU failure, power supply unit (230 + 5% v, 50 hz), 48 hrs back-up with 24 volt sealed maintenance free batteries with automatic charger. The panel shall have facility to connect printer to printout log and facility to have seamless integration with Digital Voice Evacuation system and 2 ways Communication Fire Fighters System (which is part of the schedule of work under SH: PA system). The panel shall be capable for remote accessibility on a mobile app through cloud platform/solution. UL864, 10th Edition & FM Approved. The panel shall be capable of self-programing without any dependency on dongle or programming software. Quoted rate shall include supply of necessary software & hardware for programming the panel with all necessary license.
3. CENTRAL GRAPHICAL FIRE ALARM MANAGEMENT SYSTEM shall be able to centrally monitor and Control the fire alarm system. The software shall provide the facility to Monitor, Control all the Digital PAVA as well as 2 way communication from main control room using voice signals over Fire Network along with the fire detection signal. The Graphic workstation shall act as an independent node communicating on the peer to peer network and shall not be dependent on the Fire Panel CPU for operation. Failure of Fire Panel CPU shall not result in failure of GUI. The software shall be capable of monitoring 200 Nodes with 100 Mbps Transmission rate on Fiber Optics Network and 12 Mbps Transmission on cable and 2,50,000 network points. The software shall be capable to Monitor & Control all the Digital Voice Evacuation as well as 2 way communication from main control room using voice signals over Fire Network along with the Fire detection signal. The Graphic workstation shall act as an independent node communicating on the peer to peer network and shall not be dependent on the Fire Panel CPU for operation. Failure of Fire Panel CPU shall not result in failure of GUI.
4. INTELLIGENT ANALOG ADDRESSABLE PHOTO THERMAL DETECTOR should be with Sensitivity range of 0.5 to 4.0% obs/f complete with mounting base complete as required. The detector shall have twin bi-colour LED for 360 deg viewing. Addressing shall be with user friendly rotary decimal switches designed to meet UL268, 7th Edition. The detector sensitivity (day & night) shall be controlled from the panel to get accustomed to the local environment. The detector shall work on cooperative mode to avoid false alarm.
5. INTELLIGENT ADDRESSABLE THERMAL DETECTOR with rate of rise cum fixed temperature thermistor complete with base shall have twin bi-colour LED for 360 deg viewing and be designed to meet. Detector shall comply UL521 guideline & FM Approved.
6. INTELLIGENT ADDRESSABLE MULTI CRITERIA [smoke + Heat + CO + IR] detector including suitable photo detector complete with base shall have twin bi-colour LED for 360 deg viewing Designed to meet UL268, 7th Edition.
7. ADDRESSABLE MANUAL CALL POINT shall have an LED which shall blink in normal state & get steady on activation to monitor the heath status of the device.
8. ADDRESSABLE HORN CUM STROBE shall be rated at 75 dBA @ 3m for Audible annunciation and 75cd flashing at 1 Hz for visual indication.

MAINTENANCE SCHEDULE FOR AIRCONDITIONING WORK

This section covers the maintenance schedule during the contract period as per contract. **LOG BOOKS SHALL BE PROVIDED BY THE CONTRACTOR AND MAINTAINED AT SITE FOR AC PLANTS.**

The maintenance provided during the Contract period shall be as per contractual terms & conditions and shall include but not limited to all equipments, labour part and emergency calls providing and site response within 24 hours. However, during the maintenance period, the material including consumable materials shall be arranged by the contractor if any replacement is warranted.

The maintenance shall include a minimum 12 monthly preventive maintenance visits by qualified personnel who are thoroughly familiar with the type of equipment and system pertaining to the low side of chiller AC Plant. This shall be in conjunction with the BOQ specification.

Chiller	Monthly inspection and service	1. Check refrigerant level, leak test with electronic leak detector. If abnormal, trace and rectify as necessary, inform department in writing on the rectification. 2. Inspect level and condition of oil. If abnormal, trace fault and rectify as necessary. Inform department in writing on the rectification. 3. Check the liquid line sight glasses for proper flow 4. Check all operating pressure and temperature. 5. Inspect and adjust, if required, all operating safety controls. 6. Check capacity control, adjust if necessary. 7. Lubricate vane / linkage / bearings. 8. Visually inspect machine and associated components, and listen for unusual sound or noise for evidence of unusual conditions. 9. Check lock bolts and chiller spring mount. 10. Review daily operating log maintained by department's operating personnel. 11. Providing written report to department, outlining services carried out, adjustment made, rectification carried out and if the deficiency is of a major nature, arrange with department for shutdown to rectify equipment.
Chiller	Annual inspection prior to expiry contract	1. Perform all functions for monthly check 2. Check all flanges for tightness 3. Change oil in oil sump 4. Replace filter 5. Check oil temperature control 6. Check motor terminals 7. Check connections in starter Please note that oil filter gasket replacement shall deem to be included in the contract. 1. Check motor earthing, megger motor and connection wiring on each leg 2. Check motor temperature cut-out, tighten motor terminals 3. Check starter contacts, arc shield, transformer 4. Check dashpot oil, clean dashpot and replace oil when necessary 5. Test and calibrate overload setting 6. Inspect, calibrate and adjust to original specifications all gauges, safety and operating controls including low temperature and high pressure cut-out, oil pressure switch, load limit relay and electrical interlocks 7. For water cooled condenser systems, inspect condenser tubes for fouling. If fouling exceeds original specifications, the contractor shall carry out cleaning of the tubes at his own expense 8. For air cooled condenser coils, dust should not be allowed to accommodate on the condenser coil surfaces. Cleaning shall be as often as necessary [approximately every three months] to keep coil clean. Exercise care when cleaning the coil, so that the coil fins are not damaged. Under no circumstances this unit be cleaned with acid based cleaner.
Water pumps	Monthly inspection	1. Inspect all water pumps 2. Check all seals, glands and pipelines for leaks and rectify as necessary 3. Re-pack and adjust pump glands as necessary 4. Check all pump bearings and lubricate with oil or grease as necessary 5. Check the alignment and condition of all rubber couplings between pumps and drive motors and rectify as necessary 6. Check all bolts and nuts for tightness and tighten as necessary
Water pumps	Annual inspection	1. Perform all functions for monthly check

	prior to expiry contract	2. Check motor earthing, megger motor and connection wiring on each leg 3. Tighten motor terminals 4. Check starter contacts 5. Test and calibrate overload setting
Expansion tank	Annual inspection prior to expiry of contract	1. Inspect expansion tank, drain, clean and flush out tanks as necessary
Air handling units and fan coil units	Monthly inspection	1. Inspect all air handling and fan coil units 2. Check all air filters and clean or change filters as necessary 3. Check all water coils, seals and pipelines for leaks and rectify as necessary 4. Check and re-calibrate modulating valves and controls. Adjust and rectify as necessary to ensure compliance to the original specifications 5. Purge air from all water coils 6. Check all fan bearings and lubricate with grease as necessary 7. Check the tension of all belt drives and adjust as necessary 8. Check and clean all the condensate pans, trays and drain 9. Check, measure and re-calibrate all sensors if necessary 10. Check, clean and service smoke detectors. Carry out a system test to ensure that the smoke detectors will trip the AHUs 11. Check spring vibration isolators for abnormal vibration. Rectify if necessary. 12. Coil to be cleaned by [a] spray of high pressure clean water [not exceeding 30 psi] [b] with chemical spray if necessary
Air handling units and fan coil units	Annual inspection prior to expiry of contract	1. Perform all functions for monthly check 2. Tighten motor terminals 3. Check starter contacts 4. Test and calibrate overload settings
Air cooled packaged units and precision computer air condition equipment	Monthly check	1. Check condenser fan motor load ampere 2. Check fan and motor mounting brackets 3. Check shafts and bearings. Lubricate with grease as necessary. 4. Check the tension of all belt drives and adjust as necessary 5. Check for refrigerant leaks with electronic leak detector 6. Check electrical terminals and contactors operation and connections for tightness 7. Check compressor motor current 8. Check refrigerant line driers and moisture indicators
Air cooled packaged units and precision AC equipment	Annual inspection prior to expiry of contract	Perform all functions listed in the monthly check
Air distribution system	Monthly and Annual inspection prior to expiry of contract	1. Check operation of all modulating and fixed dampers controlling air flow through unit. Lubricate all damper bearings and linkages as necessary 2. Carry out space temperature checks on air conditioned areas with thermo hydrograph. Balance air flow as necessary to compliance with requirements of original specifications. These checks include the calibration of sensors, thermostat etc. 3. Check noise level of discharged air from diffusers
Ventilation	Monthly check and Annual inspection prior to expiry of contract	1. Check adjust as necessary the air flow of all fans are in compliance with the original specifications 2. Check the tension of all belt drives and adjust as necessary 3. Check and lubricate all fan bearings 4. Tighten motor terminals 5. Check starter contacts 6. Test and calibrate overload settings 7. A system check shall be carried out for all Mechanical Ventilation [MV], Pressurisation and Exhaust system to verify the performance of the systems
Switch board	Six-monthly and Annual inspection prior to expiry of contract	1. Clean and adjust all switchgear, contactors, relays and associated electrical equipment at intervals not exceeding six months 2. Check and prove operation of thermal overload and protection devices 3. Check and ensure tightness of all equipment fastenings and cable terminations within switch boards 4. Vacuum clean all switch board cubicles
Piping system	Monthly and Annual inspection prior to expiry of contract	1. Check all piping system for leaks and repair these where they have occurred 2. Check for damage & deterioration of insulation or sheathings. Rectify as necessary.

	Consumable materials	The contractor shall supply the following consumable materials as and when required:- 1. All greases and oils required for lubrication of compressors, fan bearings, motor bearings, pivots and other moving parts 2. All refrigerant required for topping up. 3. All consumable filter elements / rolls 4. All chemicals for the correct chemical treatment of the cooling tower and chilled water system 5. All carbon brushes required to replace worm brushes in electric motors 6. All electric contact points required to replace worm electric contact points in switchgears, motor starter gears, electronic control gears and electric relays 7. All electric fuses required to replace blown fuses Just before the expiry of the of the contract, the contractor shall carry out a complete system operability test on all the systems or sub systems as called for in the contract. The purpose of the test is to verify that the performance of all the systems or sub systems in the contract is in order. All test shall be carried out in the presence of the Engineer-in-charge or his representative.
OPERATION	For Two different sites	Strictly as the BOQ Schedule

NOTES

Test Instruments	1. All instruments for testing shall be provided by the air conditioning contractor. 2. Thermometers used for measurement of temperature of water / refrigerant shall have graduation of 0.1 deg C and shall be got calibrated from N.P.L. or any recognised test house beforehand. 3. Thermometers used in the psychrometers shall have graduations of 0.2 deg C and shall be calibrated as at [2] above. 4. Pressure gauges shall also be calibrated beforehand from a recognised test house. 5. Orifice type flow meters shall be used for measuring flow rate through the condensers and chillers.

LIST OF APPROVED MAKES FOR WORKS

S.NO	Description	Approved Makes
1	EWC seat covers	HINDWARE/ PARRYWARE/ CERA/ KEROVIT
2	C.P brass fittings/ Accessories	JAQUAR/ MARC/ KOHLAR /KEROVIT
3	PVC Seat Cover	PRAYAG/ POLYTUF/SHAKTI/ PEARL
4	PVC Fittings/ Accessories	PRAYAG/ PRIMA/SHAKTI/ PEARL
5	Cement (Grey) OPC/ PPC Grade-43	ACC/ L&T/J.K/ BIRLA/ULTRA TECH/ VIKRAM
6	Cement (White)	J.K/ BIRLA
7	Reinforcement Steel	PRIMARY MANUFACTURERS APPROVED BY MINISTRY OF STEEL/ SECONDARY MANUFACTURERS HAVING VALID BIS LICENSE (to be as per latest BIS provisions)
8	Structural Steel	PRIMARY MANUFACTURERS APPROVED BY MINISTRY OF STEEL/ SECONDARY MANUFACTURERS HAVING VALID BIS LICENSE (to be as per latest BIS provisions)
9	Stainless Steel (Grade 304)	JINDAL/ SAIL/ SALEM
10	Bricks	COMMERCIALLY AVAILABLE OR REQUIRED STRENGTH
11	Aluminum Sections	HINDALCO/ JINDAL/ MAHAVIR
12	Flush doors	CENTURY/ MERINO/ DURO BOARD/ GREEN/ARCHID
13	Laminates	GREENLAM/ DURO/ ARCHID/ MERINO/ CENTURY
14	Glass	SAINT GOBAIN/ MODI FLOAT/ ASAHI FLOAT
15	Ceramic Glazed tiles/ Border tiles	1ST QUALITY KAJARIA/ NITCO/ JOHNSON/ ORIENT/ SOMANY
16	Vitrified Tiles	JOHNSON/ KAJARIA/ ORIENT/ SOMANY
17	Interlocking Precast paver blocks/ Kerb Stone	HINDUSTAN TILES/ SWASTIK/ DALAL/ KK
18	Stainless Steel Hinges	JOLLY/ GARG/ AMIT/ ASJ/ SUPREME
19	Stainless Steel Nuts/ Bolts/ Screws	KUNDAN/ PUJA/ ATUL/ GKW
20	Paint/ primer/ oil bound distemper/ Acrylic paint/ plastic paint	1ST QUALITY PAINTS OF ASIAN/ BERGER/ NEROLAC/ SHALIMAR /DULUX
21	Water Proof Cement Paint/ Exterior Paint	1ST QUALITY PAINTS OF ASIAN PAINTS/ BERGER/ NEROLAC/ SHALIMAR /DULUX
22	Sanitary ware (Vitreous China) (European Seats. Urinals, Wash Basins, etc.)	HINDWARE/ PARRYWARE/ CERA/ KEROVIT/ JAGUAR
23	G.I Pipes	TATA/ JINDAL(HISSAR/ BHUSHAN/ APL APPOLO
24	G.I Fittings	UNIK/ ZOLOTO/ AM
25	Stainless Steel Sink	NEELKANTH/ JAINA/ KINGSTON (COBRA)/ NIRALI
26	Commercial Board/ PLY	MERINO/ DURO/ GREEN/ CENTURY/ KIT (SWASTIK)
27	C.I Pipes/ Fittings	RIF/ NECO/ BENGAL IRON WORKS/ BC/ SKF
28	C.I Pipes "Class LA"	NICO/ KESORAM/ ELECTRO STEEL/ KAPILANSH
29	Floor Spring	DORMA/ GODREJ/ HAFELE/ GEZE/ OZONE
30	Door Closer	SANDHU/ HARDWIN/ DORMA/ GODREJ/ HAFELE/ GEZE/ OZONE
31	Mirror	ATUL/ MODIGUARD / SAINT GOBAIN/ AASHI
32	Vertical Blinds	VISTA/ MAC/ MARVEL DECOR/ SAINT GOBAIN /DECK DÉCOR
33	False Ceiling	ARMSTRONG/ SAINT GOBAIN/ META WORTH
34	Water proofing compound	SIKA/ FOSROC/ PIDILITE/ ASIAN/ BASF/CICO
35	Particle Board	NOVA PAN/ BHUTAN BOARD/ ECO BOARD
36	Adhesive	FEVICOL/ VAMICOL/ DUNLOP/ VAM ORGANIC/ KAJARIA
37	Tile Adhesive	PIDILITE/ FERROUSCRETE/ BALLENDURA/CICO
38	Wall Putty	BIRLA/JK/ SARA
39	Epoxy Grout	BALLENDURA/ KERAKOLL/ FERROUSCRETE
40	P.VC Water storage tank [ISI marked)	SINTEX/ UNI PLAST/ POLYWELL

41	PVC insulated Water storage tank Heavy Duty 4/5 layer	SINTEX/ UNIPLAST/ POLYWELL/ EURO
42	Brass Ball Valve/ Gate Valve/ Float Valve/ Butterfly valve	ZOLOTO/ AM/ LEADER/ SANT
43	Aluminum Door fittings	CLASSIC/ EVEREST/ ARGENT
44	Brass Bib/ Stop cock	AGI/ ELITE/ SHAKTI/ SANT/ LEADER/ PRIMA
45	Thermoplastic paint	CBM/ CMS/ S.N INDUSTRIES
46	Plaster of Paris Putty	ADHASHREE/ SHREE RAM/ J.K/ BIRLA
47	RCC Pipe	LAKSHMI/ SOOD & SOOD/ JAIN & Co./ DIWAN SPUN PIPES
48	PVC Pipe	PRAKASH/ PRINCE/ SUPREME
49	Sandwich Roof Panel (Puff Panel)	KAKTUS/ ZEP/ E- PACK/ LLOYD
50	WPC Board and MPC Board	FLORESTA, ECOSTE, RAJ SHREE
51	WPC Door Frame	FLORESTA, ECOSTE, RAJ SHREE
52	Self- Closing Hinges	HETTICH, KITCH, PLUM
53	Poly Carbonate Sheet	GE LEXAN/ POLYGAL/TUFLITE
54	ACP Panel	ALSTRONG / ALUCOBOND / EUROBOND/ ALUDECOR
55	Acoustic Wooden/Fabric Paneling	ARMSTRONG/ ANUTONE/ CREDENCE/ TOPAKUSTIK
56	Polyvinyl Flooring	ARMSTRONG/ POLY FLOR/ TARKETT
57	Glow Stud, Solar Power Stud	ROAD STAR/ 3M/ DARK EYE/ EVERY DENNISON
58	Laminate Wooden Flooring	VISTA/ ACTION TESA/ ARMSTRONG/ PERGO
59	Sun Control Film	3M/ GARWARE/ SAINT GOBAIN
60	Insulation (Mineral/ rock wool)	UP TIWAGA LTD/ ROCKWOOL IND./ F.G.P.
61	Fire Door	NAVAIR/ SHAKTI/ RADIANT /SIGNUM/ PROMAT
62	Flush door Shutters of various thickness	MERINO/ DURO/ GREEN/ CENTURY/ KIT (SWASTIK)
63	Open cell false ceiling	ARMSTRONG /CREDENCE /HUNTER DOUGLAS
64	Calcium silicate false ceiling	AEROLITE, RAMCO, HILUX, USG BORAL
65	Gypsum Board	GYPROC BY SAINT GOBAIN, USG BORAL, ARMSTRONG
66	Fibre Cement Board	EVEREST/ USG BORAL / VISAKA
67	CPVC Pipe Fitting & Solvent	SUPREME/ ASTRAL/ ASHIRWAD / PRINCE/ PRAKASH
68	UPVC Pipes & Fittings	SFMC / SUPREME/ FINOLEX
69	UPVC Window	FENESTA/ REHAU/ ENCRAFT/ (NCL Wintech)/ SAINT GOBAIN
70	Friction Stay Hinges	EARL- BIHARI/ EBCO/HETTICH
71	M.S Pipes	JINDAL/ APPOLO/ SWASTIK/ TATA/ SURYA
72	Gypsum Plaster	FERROUS CRETE [FERRO-500)/ GYPROC (ELITE-100/ KERAKOL (K-100)
73	GRC Wall Tile/ Jali	UNISTONE/ DALAL/ SWASTIK ALWAR/ ULTRA
74	HDMR Board	CENTURY/ GREEN/ ACTION TESSA
75	High Pressure Laminate [HPL]	CENTURY/ GREEN/ MERINO/ TRESPA/ FUNDERMAX
76	Anchor Fastener [Mechanical/ Chemical)	HILTI/ MUNGO/CANON/ FISCHER
77	Cupboard Lock	PLAZA/ GODREJ/ HETTICH/ HAFLEY
78	Rust remover/ Rust converting primer /paint	FOSROC/ SIKA/ BASF/ PIDILITE
79	polymer based zinc rich primer	FOSROC/ SIKA/ BASF/ PIDILITE
80	anticorrosive paint	FOSROC/ SIKA/ BASF/ PIDILITE
81	Concrete penetrating HI-TECH Corrosion inhibitor	FOSROC/ SIKA/ BASF/ PIDILITE
82	Thixotropic Epoxy repair mortar	FOSROC/ SIKA/ BASF/ PIDILITE
83	Latex/ SBR Polymer Compound	FOSROC/ SIKA/ BASF/ PIDILITE
84	Low viscous epoxy resin grout	FOSROC/ SIKA/ BASF/ PIDILITE
85	Epoxy resin for Concrete bond coat	FOSROC/ SIKA/ BASF/ PIDILITE
86	Pre-batched non-shrink polymer modified mortar	FOSROC/ SIKA/ BASF/ PIDILITE
87	Pre-batched Pre Mixed Non- Shrink Micro Concrete	FOSROC/ SIKA/ BASF/ PIDILITE
88	Pre-batched Pre Mixed Non- metallic composite fiber wrapping system	FOSROC/ SIKA/ BASF/ PIDILITE
89	Epoxy for rebar/shear anchor	FOSROC/ SIKA/ BASF/ HILTI

90	Modular kitchen basket and accessories (SS-304 Grade)	HETTICH/ KITCH/ PLUM /PECOCK
91	Manhole cover /Grating	KK MANHOLE/ DALAL/ SWASTIK/ HINDUSTAN
92	laminate wooden flooring	VISTA/ ARMSTRONG/ ACTION TESSA
93	Engineered wood Flooring	PERGO / JUNKERS/ BOEN / SQUARFOOT
94	SS Pipe (304 grade) FOR WATER SUPLY	JINDAL/ TATA/ ALFA PRESS/ VIEGA
95	Epoxy flooring	FOSROC/ SIKA/ BASF
	FURNITURE	
96	Work Station	GODREJ INTERIO/ HAWORTH/ STEEL CASE/ WIPRO/ FEATHERLITE/ HERMAN MLLER
97	Executive Table/ other table	GOOREJ INTERIO/ HAWORTH/ STEEL CASE/ WIPRO/ FEATHERLITE/ HERMAN MLLER
98	Chair/ Audi Chair	GODREJ INTERIO/ HAWORTH/ STEEL CASE/ WIPRO/ FEATHERLITE/ HERMAN MLLER
99	Lab Furniture's	KEWANEE/ WALDNER/ GODREJ/ WIPRO/ FEATHERLITE
100	Hostel beds and cots	ZUARI / EVOK / GODREJ / WIPRO/ FEATHERLITE
101	Hospital beds	HUNTLEY/ STRIKER /GODREJ /WIPRO /FEATHERLITE
ITEMS FOR CLEAN ROOM/ BSL / SRTERLIZATION / SPECIAL LAB FURNITURE		
102	Clean room Wall, Ceiling panel, coving	IClean/ Nicomac/ Clestra/ Channel Systems
103	Clean room Garment cabinet, shoe rack	IClean/ Kleainzaids/ Channel Systems
104	Clean room Doors, Return air riser	IClean/ Nicomac/ Clestra/ Channel Systems
105	Pass box, Air Shower	IClean/ Kleainzaids / Channel Systems
106	Utility Gas piping valves and Fittings (for clean room]	Shavo Technologies/ Excel Gas/ GDS STARLING/ Broen/ Ratnamani
107	Utility Gas Pipe SS 304 Seamless (for clean room]	Excel Gas/ Scoda / Venus/ Dockweller
108	SS 316 L Electo polished tubing	Dockweller / Valex/ Sandvik/ Ratnamani
109	Chilled water pump	Grundfos/ KBL/ Beacon/ Wilo
110	Insulation for pipe and valves	Armaflex/ K Flex/ A flex/ Supreme
111	Auto Air vent, Y strainer	Anergy / Zoloto / Lehry
112	3 way modulating valve, Flow switch	Siemens/ Honeywell
113	Humidistat, Thermostat, DP Sensor	Siemens/ Honeywell
114	Magnehalic gauge	Dwyer/ Sensocon / Micro precision
115	Temperature Pressure gauge	H Guru / Wika / Febig
116	Pre Insulated Ducting	RR Engineers/ Asawa / Paul
117	Thermal Insulation for GI ducting	Supreme/K. Flex/A Flex/ Armaflex
118	HEPA Filters, HEPA terminal. BIBO unit	AAF/Camfil/ Thermadyne / Mechmaark
119	Building Management System	Honeybell / Siemens/ Johnson
120	Biometric Access System	Siemens/ Vantage/ ExcelLex
121	Door Interlock	Honeywell/Vantage/ Drishti / Ozone
122	Thyristor Heater	KEPL/ lntercool/ Rapid Cool
123	Compressed Dry Air (Oil free type)	Atlas Copco/ Chicago Pneumatics Ingersol Rand/ Elgi
124	Antivibration mounting	Resistoflex/ Gerb / Polybond
125	Variable Frequency Drive	ABB/ Danfos / Fuji
126	Lab Casework	Kewaunee/GO-Waldner/Godrej/Citizen/ Lab India / lab guard
127	Fume Hoods	Kewaunee/GO-Waldner/Godrej/Citizen/ Lab India / lab guard
128	Utility Valves	Broen/Water Saver/FAR
129	VAV Controls	TEL
130	Spot Extractor	Fumex/ Alsident
131	Exaust blower	Colasit/ Plastifier/ Seat
132	Acid storage	Kewaunee/ Justrite/ Asecos
133	Solvent storage [FM)	Kewaunee/ Justrite/ Asecos
134	Chemical storages	Kewaunee/GD-Waldner/Godrej/Citizen
135	Document Storages	Kewaunee/GD-Waldner/Godrej/Citizen/ Lab India / lab guard
136	Bio safety cabinet	Kewaunee/ Klenzaids/ Esco/ Fisher
137	Laminar air flow	Kewaunee/ Klenzaids/ Esco/ Fisher

138	Laboratory chairs (SS]	Kewaunee/GD-Waldner/Godrej/Citizen
139	Lab Stools [SS)	Kewaunee/ Godrej/ Citizen/ Filtotech/ Universal
	E & M Items	
S. No.	Description	Approved Makes
01	MCB(10KA)/ Isolators & MCB DB with End Box.	Legrand / Siemens/ Lauritz knudsen / ABB/ Schneider
02	MCCB	Legrand / Siemens/ Lauritz knudsen / ABB/ Schneider
03	MCCB BOX	Legrand / Siemens/ Lauritz knudsen / ABB/ Schneider
04	Modular type switch/ socket, TV socket, Fan Regulator.	Lauritz knudsen / ABB/ Wipro North West/ Legrand (Arteor/ Myrius)/ Schneider (Zencelo).
05	Steel conduit pipe and Accessories (ISI)	BEC/ AKG/ NIC / Steel Krafts
04	PVC conduit pipe and Accessories(ISI)	BEC/ AKG/ NIC
05	Junction Boxes/ MS Boxes	Havells Crabtree / Anchor / North West / Legrand
06	Bushes	PVC/ Nylon
07	FRLS PVC insulated copper conductor cable / Wire	Polycab / Finolex / Havells
08	LED Light Fixture	Philips/ Trilux/ LT / Wipro/ Havells
09	Ceiling Fans (BLDC) & Wall Fan	Havells/ Atomberg/ Bajaj/ Crompton.
10	Exhaust Fan/ Fresh Air Fan	Havells/ Bajaj/ Crompton.
11	Industrial type socket	Legrand / Siemens/ Lauritz knudsen / ABB/ Schneider
12	DLP U-PVC channel & accessories	Schneider / Legrand or Equivalent
13	Modular Plate & Cover Plate	Lauritz knudsen / ABB/ Wipro North West/ Legrand (Arteor/ Myrius)/ Schneider (Zencelo).
14	Distribution Board	Legrand / Siemens/ Lauritz knudsen / ABB/ Schneider.
15	XLPE Alumium/ Copper conductor Armoured cable	Havells/ Polycab/ RR kabel/ KEI/ Universal
16	Multifunction Meter	Lauritz knudsen / AE/ Schneider/ Rishabh/ Siemens / ABB
17	Ammeter	Lauritz knudsen / AE/ Rishabh/ Schneider / ABB / Siemens
18	Voltmeter	Lauritz knudsen / AE/ Rishabh/ Schneider / ABB / Siemens
19	Frequency Meter	Lauritz knudsen / AE/ Rishabh/ Schneider / ABB / Siemens
20	CT's	AE/ KAPPA/ Pragati
21	Selector Switches	AE/ KAPPA/ Pragati
22	Contractors	Lauritz knudsen / Seimens/ GE power/ Legrand/ ABB / Siemens
23	Push button & Pilor lamps	Lauritz knudsen / Seimens/ Schneider / Siemens / ABB
24	LED indicating Lights	Lauritz knudsen / Seimens/ Schneider / Siemens / ABB
25	GI Pipe	Jindal Steel/ Jindal Hisar/ Sail/ Tata
26	DW HDPE Pipe	Reliance/ Duraline/ Hasti
27	Cat 6 LAN Cable	Legrand/ Molex/ Amp
28	Air conditioners	Mitsubishi / Hitachi/ Daikin/ Blue Star/ Panasonic/ Voltas
29	Access Control System	Bosch/ Honeywell/ HID/ Nextwatch
30	Intruder Alarm Systerm	Ademco/ bosch/ DSC/ Honeywell
31	Cable raceway floor/ wall mounted & Accessories(MS/G.I)	Legrand/ AKG/ BEC/ ESSAR/ Honeywell/ Godrej.
32	Sandwitch Bus trunking/ Rising Main	C&S/ Lauritz knudsen / Schneider/ ABB / Siemens
33	Telephone wire	Delton/ Finolex/ Havells/ Skytone
34	Occupancy Sensor	Wipro/ Schneider/ Honeywell/ Seimens/ Bosch
35	Gooseneck Microphone	Televic/ Beyerdynamic/ Bosch/ Bose/ Sennheiser
36	Amplifier	Crown/ Extrom/ Crestron
37	24 Port Switch	Cisco/ Netgear/ Hp/ Juniper
38	8 Port LIU	Legrand/ AMP/ Molex
39	16 Port Gigabit POE Switch	Netgear/ Juniper/ Cisco
40	HDMI/ USB Cable	AMX/ Crestron/ Manhatten
41	AV Speaker	JBL/ Bosch/ Bose/ Sony
42	CCTV Camera	Pelco/ Bosch/ Honeywell
43	DVR (Digital Video Recorder)	Bosch/ Honeywell/ Pelco
44	Fire Suppression System	Minimax/ Ceasefire/ Ansul
45	Fire Panel	Johnson Control (IFC)/ Notifier (UL) / Bosch (UL) / Mircom (UL) / Fike (UL).

46	PA System	Notifier/ Johnson Control/ Fike/ Cooper/ Bosch/ Honeywell
47	Addressable Heat/ Smoke detector/ Hooter/ RI/ Pullstation/	Johnson Control (IFC)/ Notifier (UL) / Bosch (UL) / Mircom (UL) / Fike (UL).
48	Conventional Heat/ Smoke detector/ Hooter/ RI/ Pullstation/	System Sensor/ Cooper/ GST/ Ravel/ Fike/ Essar/ Honeywell/ Bosch/ Bosch
49	Cable joint Kit	Raychem/ M-Seal/ Densons/ 3M

BID SUBMISSION

ONLINE BID SUBMISSION

The Online bids (complete in all respect) must be uploaded online in **two** Envelops as explained below: -

Envelope – 1 (Following documents to be provided as single PDF file)			
Sl. No.	**Documents**	**Content**	**File Types**
1.	Technical Bid	Demand Draft/Pay order or Banker`s Cheque /Deposit at Call Receipt/FDR of any Scheduled Bank against EMD.	.PDF
2.		Enlistment order of contractor.	.PDF
3.		Attested certificate of work experience.	.PDF
4.		Certificate of Registration of GST and acknowledgment of up to date field return of GST.	.PDF
5.		**Affidavit on Rs. 100/- Non judicial Stamp paper as per Notice Inviting Tender Condition 1.3 at page 8 of NIT. (Stamp Paper shall be purchased/ notarized between date of publishing and last date of submission of bids beside this NIT/Tender ID and name of work must be mentioned on the affidavit)**	.PDF
6.		Acceptance to execute INTEGRITY PACT.	.PDF
7.		Undertaking as per on firm's letter head. **"The physical EMD shall be deposited by me / us with the Authority inviting the tender, in case I / we become the lowest tenderer, within a week of the opening of financial bid, otherwise, department may reject the tender and also take action to debar me / us from tendering in any form in IIT Delhi"**	.PDF
8.		ESI and EPF Registration if applicable	.PDF
9.		FORM "F" (Duly filled with all required details	.PDF
10		In case of Partnership firm if all the papers of tender not signed by all the partners than a power of attorney authorizing the person who has signed the tender paper must be uploaded with the tender documents.	.PDF
11		Annexure-I (duly filled & signed by the bidders)	.PDF
12		Annexure-II (duly filled & signed by the bidders)	.PDF
13		Annexure-III (duly filled & signed by the bidders)	.PDF
14		Annexure-IV (duly filled & signed by the bidders)	.PDF
15		Annexure-V (duly filled & signed by the bidders)	.PDF
16		Any other documents specified in NIT	.PDF
Envelope – 2			
Sl. No.	TYPES	Content	
1.	Financial Bid	Price bid should be submitted in BOQ format.	.Xls

All above documents shall be as per Tender Notice.

PART 'C'

SCHEDULE OF QUANTITY

Name of work: - Comprehensive Maintenance of Civil, Electrical & Air Conditioning work at Hostels (Boys & Girls) under whole campus at IIT Delhi.

S. No.	Description	Qty.	Unit	Rate (Inclusive of GST) in (Rs)		Amount (Rs)
				(In Figures)	(In words)	
	Part I (CIVIL)					
1	**Carriage of Materials**					
1.1	By Mechanical Transport including loading,unloading and stacking					
1.1.1	Disposal of moorum/building rubbish/ malba/ similar unserviceable, dismantled or waste material by mechanical transport including loading, transporting, unloading to approved municipal dumping ground for lead upto 10 km for all lifts, complete as per directions of Engineer-in-charge.	450.00	cum			
2	**EARTH WORK**					
2.1	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:					
2.1.1	All kinds of soil	50.00	sqm			
2.2	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-in-charge.					
2.2.1	All kinds of soil	10.00	cum			
2.3	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.					
2.3.1	All kinds of soil.	10.00	cum			

2.4	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :					
2.4.1	All kinds of soil					
2.4.1.1	Pipes, cables etc, not exceeding 80 mm dia.	100.00	metre			
2.4.1.2	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	300.00	metre			
2.5	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	15.00	cum			
2.6	Excavating holes more than 0.10 cum & upto 0.5 cum including getting out the excavated soil, then returning the soil as required in layers not exceeding 20cm in depth, including consolidating each deposited layer by ramming, watering etc, disposing of surplus excavated soil, as directed within a lead of 50 m and lift upto 1.5 m.					
2.6.1	All kinds of soil	50.00	each			
2.7	Supplying chemical emulsion in sealed containers including delivery as specified.					
2.7.1	Chlorpyriphos emulsifiable concentrate of 20%	450.00	litre			
2.8	Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) :					
2.8.1	Treatment of existing masonry using chemical emulsion @ one litre per hole at 300 mm interval including drilling holes at 45 degree and plugging them with cement mortar 1:2 (1 ce- ment : 2 coarse sand) to the full depth of the hole :					
2.8.1.1	With Chlorpyriphos E.C. 20% with 1% concentration	650.00	metre			

2.8.2	Treatment at points of contact of wood work by chemical emulsion Chlorpyriphos (in oil or kerosene based solution) @ 0.5 litres per hole by drilling 6 mm dia holes at downward angle of 45 degree at 150 mm centre to centre and sealing the same.	100.00	metre			
3	**CEMENT CONCRETE (CAST IN SITU)**					
3.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :					
3.1.1	1:1.5:3 (1 Cement: 1.5 coarse sand (zone-Ill) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)	1.00	cum			
3.1.2	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)	20.00	cum			
3.1.3	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)	20.00	cum			
3.1.4	1:5:10 (1 cement : 5 coarse sand (zone-III) derived from natural sources : 10 graded stone aggregate 40 mm nominal size derived from natural sources)	1.00	cum			
3.2	Providing and laying damp-proof course 50mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 20mm nominal size derived from natural sources).	10.00	sqm			
3.3	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand (zone-III) derived from natural sources : 6 graded stone aggregate 20 mm nominal size derived from natural sources) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including necessary excavation, levelling & dressing & finishing the top smooth.	100.00	sqm			
4	**REINFORCED CEMENT CONCRETE**					

4.1	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement :					
4.1.1	1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natu- ral sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)	2.00	cum			
4.2	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).	5.00	cum			
4.3	Centering and shuttering including strutting, propping etc. and removal of form for					
4.3.1	Suspended floors, roofs, landings, balconies and access platform	20.00	sqm			
4.3.2	Lintels, beams, plinth beams, girders, bressumers and cantilevers	20.00	sqm			
4.3.3	Weather shed, Chajjas, corbels etc., including edges	20.00	sqm			
4.4	Providing, hoisting and fixing up to floor five level precast reinforced cement concrete in small lintels not exceeding 1.5m clear span up to floor five level, including the cost of required centering, shuttering but , excluding the cost of reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).	3.00	cum			
4.5	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.					
4.6	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.					

4.6.1	Thermo-Mechanically Treated bars of grade Fe-500D or more.	100.00	kg			
4.7	Steel reinforcement for R.C.C. work ready to use "cut and bend" rebars of approved make from factory/workshop to construction site including placing in position and binding all complete above plinth level.					
4.7.1	Thermo-Mechanically Treated bars of grade Fe-500D or more.	700.00	kg			
5	**MASONRY WORK**					
5.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:					
5.1.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	10.00	cum			
5.2	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in :					
5.2.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	25.00	cum			
5.3	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.					
5.3.1	Cement mortar 1:4 (1 cement :4 coarse sand)	100.00	sqm			
5.4	Extra for providing and placing in position 2 Nos 6mm dia. M.S. bars at every third course of half brick masonry.	100.00	sqm			
6	**CLADDING WORK**					
6.1	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing of edges to give high gloss finish etc. complete at all levels.					
6.1.1	Granite stone slab of colour black, Cherry/Ruby red					
6.1.1.1	Area of slab upto 0.50 sqm	5.00	sqm			
6.1.1.2	Area of slab over 0.50 sqm	5.00	sqm			

6.2	Extra for fixing marble /granite stone, over and above corresponding basic item, in facia and drops of width upto 150 mm with epoxy resin based adhesive, including cleaning etc. complete.	50.00	metre			
6.3	Extra for providing opening of required size & shape for wash basin/ kitchen sink in kitchen platform, vanity counter and similar location in marble/ Granite/ stone work, including necessary holes for pillar taps etc. including moulding, rubbing and polishing of cut edges etc. complete.	30.00	each			
6.4	Mirror polishing on marble work/Granite work/stone work where ever required to give high gloss finish complete.	500.00	sqm			
6.5	Providing and fixing Ist quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	300.00	sqm			
7	**WOOD AND P. V. C. WORK**					
7.1	Extra for providing frosted glass panes 4 mm thick (weight not less than 10 kg per sqm) instead of ordinary float glass panes 4 mm thick (weight not less than 10 kg per sqm) in doors, windows and clerestory window shutters. (Area of opening for glass panes excluding portion inside rebate shall be measured).	25.00	sqm			
7.2	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters.					
7.2.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	25.00	sqm			

7.3	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters:					
7.3.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	75.60	sqm			
7.4	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of flush door shutters (over all area of door shutter to be measured).	7.14	sqm			
7.5	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.					
7.5.1	Fixed to steel windows by welding	100.00	kg			
7.6	Providing and fixing ISI marked IS : 1341 M.S. pressed butt hinges bright finished with necessary screws etc. complete :					
7.6.1	100x58x1.90 mm	100.00	each			
7.6.2	75x47x1.70 mm	80.00	each			
7.6.3	50x37x1.50 mm	50.00	each			
7.7	Providing M.S. Piano hinges ISI marked IS : 3818 finished with nickel chromium plating grade 1 as per IS: 1068 and fixing with necessary screws etc., complete.					
7.7.1	Overall width 50 mm	100.00	metre			
7.8	Providing and fixing ISI marked oxidised M.S. sliding door bolts with nuts and screws etc. complete : (copper oxidized as per IS: 1378)					
7.8.1	300x16 mm	20.00	each			
7.8.2	250x16 mm	40.00	each			
7.9	Providing and fixing oxidised M.S. hasp and staple (safety type) conforming to IS : 363 with necessary screws etc. complete : (copper oxidized as per IS: 1378)					
7.9.1	115 mm	50.00	each			
7.9.2	90 mm	50.00	each			
7.1	Providing and fixing IS : 12817 marked stainless steel butt hinges with stainless steel screws etc. complete :					
7.10.1	75x47x1.80 mm	80.00	each			
7.10.2	50x37x1.50 mm	50.00	each			

7.11	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISi, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete.	100.00	each			
7.12	Providing and fixing special quality chromium plated brass cupboard locks with six levers of approved quality including necessary screws etc. complete.					
7.12.1	Size 50 mm	50.00	each			
7.13	Providing and fixing aluminium sliding door bolts, ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868), transparent or dyed to required colour or shade, with nuts and screws etc. complete :					
7.13.1	300x16 mm	50.00	each			
7.13.2	250x16 mm	100.00	each			
7.14	Providing and fixing aluminium tower bolts, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete :					
7.14.1	250x10 mm	100.00	each			
7.14.2	200x10 mm	100.00	each			
7.14.3	150x10 mm	100.00	each			
7.14.4	100x10 mm	100.00	each			
7.15	Providing and fixing aluminium handles, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete :					
7.15.1	125 mm	100.00	each			
7.15.2	100 mm	100.00	each			
7.15.3	75 mm	100.00	each			
7.16	Providing and fixing aluminium hanging floor door stopper, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade, with necessary screws etc. complete.					
7.16.1	Twin rubber stopper	300.00	each			
7.17	Providing and fixing magnetic catcher of approved quality in cupboard / ward robe shutters, including fixing with necessary screws etc. complete.					

7.17.1	Double strip (horizontal type)	50.00	each			
7.18	Providing and fixing powder coated telescopic drawer channels 300 mm long with necessary screws etc. complete as per directions of Engineer- in-charge.	15.00	one set			
7.19	Providing and fixing factory made panel PVC door shutter consisting of frame made out of M.S. tubes of 19 gauge thickness and size of 19 mm x 19 mm for styles and 15x15 mm for top & bottom rails. M.S. frame shall have a coat of steel primers of approved make and manufacture. M.S. frame covered with 5 mm thick heat moulded PVC 'C' channel of size 30 mm thickness, 70 mm width out of which 50 mm shall be flat and 20 mm shall be tapered in 45 degree angle on both side forming styles and 5 mm thick, 95 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered in 45 degree on the inner side to form top and bottom rail and 115 mm wide PVC sheet out of which 75 mm shall be flat and 20 mm shall be tapered on both sides to form lock rail. Top, bottom and lock rails shall be provided both side of the panel. 10 mm (5 mm x 2) thick, 20 mm wide cross PVC sheet be provided as gap insert for top rail & bottom rail, paneling of 5 mm thick both side PVC sheet to be fitted in the M.S. frame welded/ sealed to the styles & rails with 7 mm (5 mm+2 mm) thick x 15 mm wide PVC sheet beading on inner side, and joined together with solvent cement adhesive. An additional 5 mm thick PVC strip of 20 mm width is to be stuck on the interior side of the 'C' Channel using PVC solvent adhesive etc. complete as per direction of Engineer-in-charge, manufacturer's specification & drawing.					
7.19.1	30 mm thick plain PVC door shutters	15.00	sqm			

7.2	Providing and fixing factory made door frame (single rebate) made out of solid foam PVC extruded profile of minimum 60mm width and minimum 30 mm thickness, having homogenous fine cellular structure and integral smooth outer skin. The frame's vertical and horizontal members to be mitered cut and joined together with PVC solvent adhesive / cement and both corners strengthened with fully threaded steel screws (of required size) fixed diagonally. The door frame is to be fixed to door jambs using 6 Nos. SS 304 grade minimum 8 mm dia CSK Phillips stainless steel self tapping screws/fasteners with PA6 grade polyamide sleeves both of required size, and gap if any between the door frame and the jamb must be filled with clear silicon, complete as per direction of the Engineer-in- Charge.	100.00	metre			
7.21	Providing & Fixing decorative high pressure laminated sheet of plain / wood grain in gloss / matt/ suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S, including cost of adhesive of approved quality.					
7.21.1	1.0 mm thick	20.00	sqm			
7.22	Providing and fixing factory made Fiberglass Reinforced plastics (F.R.P.) chajja 4 mm thick of required colour, size and design made by Resin Transfer Moulding (RTM) Machine Technology, resulting in void free compact laminate in single piece, having smooth gradual slope curvature for easy drainage of water and duly reinforced by 2 nos vertically and 1 nos horizontally 50x2 mm thick M.S. flat with 12 mm in built hole for grouting on the existing wall along with the 50 mm flanges duly inserted and sealed in the wall complete in one single piece casted monolithically, including all necessary fittings . The FRP Chajja should be manufactured using unsaturated Polyester resin as per IS: 6746, duly reinforced with fibre glass chopped strand mat (CSM) as per IS: 11551 complete with protective Gel coat U/V coating on Top for complete resistance from the extreme of temperature, weather & sunlight (Only plan area of chajjas	20.00	sqm			

	shall be measured for making payment).					
7.23	Providing and fixing fly proof stainless steel grade 304 wire gauge, to windows and clerestory windows using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia. 0.50 mm all complete.					
7.23.1	With 2nd class teak wood beading 62X19 mm	50.00	sqm			
7.23.2	With 12 mm mild steel U beading	50.00	sqm			
7.24	Providing and fixing bright /matt finished Stainless Steel handles of approved quality & make with necessary screws etc all complete.					
7.24.1	125 mm	150.00	each			
7.24.2	100mm	100.00	each			
7.24.3	75 mm	80.00	each			
7.25	Providing and fixing 6 mm thick both sides Pre-laminated cement bonded wood particle board as per IS : 15786:2008 of approved brand and shade with suitable full threaded steel screws etc. on the backing of racks, drawer, cupboard, kitchen cabinet under kitchen counter etc. all complete as per direction of Engineer-in-charge.	10.00	sqm			
7.26	Providing and fixing cupboard shutter with 19 mm thick one side decorative and other side balancing lamination factory pressed BWP grade marine ply as per IS 710 of approved brand including 2 mm thick PVC edge banding tape with hot glue by edge bending machine etc. with auto closing spring loaded hinges (hydraulic type) etc. complete as per direction of Engineer-in-charge. (Payment of providing and fixing auto closing hinges shall be paid separately)	100.00	sqm			
7.27	Providing and fixing 19 mm thick both side balancing lamination factory pressed BWP grade marine ply as per IS : 710 of approved brand boxes, shelves, racks, almirah, cupboard and drawer etc. including necessary nails, screws etc. complete as per direction of Engineer-in-charge.	150.00	sqm			
7.28	Providing and fixing stainless steel soft closing spring hinges at 0 degree hinges (hydraulic type) of approved make/brand to cupboard shutters with full threaded steel screws including making necessary recess in board and finished etc. complete as per direction	200.00	each			

	of Engineer-in-charge.					
7.29	Providing and fixing 2mm thick 16 to 19mm wide PVC edge binding tape of approved quality for cupboard/wardrobe shutters including necessary synthetic resin hot pressed to edges on binding machine etc. complete as per directions of Engineer- in-charge.	200.00	metre			
8	**STEEL WORK**					
8.1	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	600.00	kg			
8.2	Providing and fixing T-iron frames for doors, windows and ventilators of mild steel Tee-sections, joints mitred and welded, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer.					
8.2.1	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size).	150.00	kg			
8.3	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, including welding and bolted with special shaped washers etc. complete.					
8.3.1	Hot finished welded type tubes	300.00	kg			
8.4	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.					
8.4.1	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	300.00	kg			
8.5	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approved steel primer.					
8.5.1	M.S. tube	100.00	kg			

8.6	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in- charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	500.00	kg			
8.7	Providing & fixing fly proof wire gauze to windows, clerestory windows & doors with M.S. Flat 15x3 mm and nuts & bolts complete.					
8.7.1	Stainless steel (grade 304) wire gauze of 0.5 mm dia wire and 1.4 mm aperture on both sides	100.00	sqm			
8.8	Providing & fixing glass panes with putty and glazing clips in steel doors, windows, clerestory windows, all complete with :					
8.8.1	5.5 mm thick glass panes	100.00	sqm			
9	**FLOORING**					
9.1	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete.					
9.1.1	40 mm thick with 20 mm nominal size stone aggregate	101.33	sqm			
9.2	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :					
9.2.1	25 mm thick	100.00	sqm			
9.3	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	10.00	sqm			

9.4	40 mm thick fine dressed stone flooring over 20 mm (average) thick base of cement mortar 1:5 (1 cement: 5 coarse sand) with joints finished flush.					
9.4.1	Red sand stone	50.00	sqm			
9.5	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as 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 pigment etc., complete.	200.00	sqm			
9.6	Providing and fixing 1st quality ceramic glazed floor tiles conforming to IS : 15622 (thickness to be specified by the manufacturer) of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement: 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete.	50.00	sqm			
9.7	Providing and laying Vitrified tiles in floor in diferent sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid on 20 mm thick cement mortar 1:4 (1 cement: 4 coarse sand) jointing with grey cement slurry @3.3 kg/sqm including grouting the joints with white cement and matching pigments etc. The tiles must be cut with the zero chipping diamond cutter only . Laying of tiles will be done with the notch trowel, plier, wedge, clips of required thickness, leveling system and rubber mallet for placing the tiles gently and easily.					
9.7.1	Double charge vitrified tile polished finish of size					
9.7.1.1	Size of Tile 600 x 600 mm	200.00	sqm			
9.7.2	Glazed Vitrified tiles Matt/Antiskid finish of size					
9.7.2.1	Size of Tile 600 x 600 mm	50.00	sqm			

9.8	Deduct for not using 20 mm thick cement mortar 1:4 (1 cement : 4 coarse sand) bedding in laying of floor tiles and jointing with grey cement slurry @ 3.3 kg/ sqm.	-250.00	sqm			
9.9	Fixing glazed/ Ceramic/ Vitrified floor tiles with cement based high polymer modified quick-set tile adhesive (Water based) conforming to IS: 15477, in average 3mm thickness.	250.00	sqm			
9.10	Providing and laying Vitrified tiles in diferent 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).					
9.10.1	Size of Tile 600x600 mm	249.00	sqm			
10	**ROOFING**					
10.1	Providing corrugated G.S. sheet roofing including vertical/curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead, including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (up to any pitch in horizontal/ vertical or curved surfaces), excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.					
10.1.1	0.63 mm thick with zinc coating not less than 275 gm/ m2	10.00	sqm			
10.2	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10 mm and down gauge), including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design :					
10.2.1	In 75x75 mm deep chase	400.00	metre			
10.3	Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes.					
10.3.1	75 mm diameter	50.00	metre			

10.3.2	110 mm diameter	200.00	metre			
10.4	Providing and fixing unplasticised - PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length, including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete.					
10.4.1	75 mm	25.00	each			
10.4.2	110 mm	100.00	each			
10.5	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15 cm diameter and weighing not less than 440 grams.	15.00	each			
10.6	Providing & fixing UV stabilised fiberglass reinforced plastic sheet roofing up to any pitch, including fixing with polymer coated 'S or 'L' hooks, bolts & nuts 8 mm dia. G.I plain/bitumen washers complete but excluding the cost of purlins, rafers, trusses etc. The sheets shall be manufactured out of 2400 TEX panel rovigs incorporating minimum 0.3% ultra-violet stabiliser in resin system under approximately 2400 psi and hot cured. They shall be of uniform pigmentation and thickness without air pockets and shall conform to IS 10192 and IS 12866.The sheets shall be opaque or translucent, clear or pigmented, textured or smooth as specified.					
10.6.1	2 mm thick flat	50.00	sqm			

10.7	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-Charge) of total coated thickness 0.50mm (base metal of minimum 0.45mm thickness with total coating thickness of 0.05mm) with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in- charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	100.00	sqm			
10.8	Providing and fixing precoated galvanised steel sheet roofing accessories of total coated thickness 0.50mm (base metal of minimum 0.45mm thickness with total coating thickness of 0.05mm) with Zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws cmplete:					
10.8.1	Ridges plain (500 - 600mm)	40.00	metre			
10.8.2	Gutter (600 mm over all girth)	40.00	metre			

10.9	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 all T-sections shall be pre-painted with polyester paint, all complete for all heights as per specifications, drawings and as directed by Engineer-in-charge.					
10.9.1	GI Metal Ceiling Lay in perforated Tegular edge global white color 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, and backed with a black Glass fiber acoustical fleece.	500.00	sqm			
11	**FINISHING**					
11.1	12 mm cement plaster of mix :					
11.1.1	1:4 (1 cement: 4 fine sand)	100.00	sqm			

11.2	15 mm cement plaster on the rough side of single or half brick wall of mix :					
11.2.1	1:4 (1 cement: 4 fine sand)	200.00	sqm			
11.3	12 mm cement plaster of mix :					
11.3.1	1:4 (1 cement: 4 coarse sand)	500.00	sqm			
11.4	15 mm cement plaster on rough side of single or half brick wall of mix:					
11.4.1	1:4 (1 cement: 4 coarse sand)	1000.00	sqm			
11.5	Neat cement punning.	200.00	sqm			
11.6	Extra for providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturers.	200.00	per bag of 50kg cement used in the mix			
11.7	Pointing on brick work or brick flooring with cement mortar 1:3 (1 cement : 3 fine sand):					
11.7.1	Flush / Ruled/ Struck or weathered pointing	150.00	sqm			
11.8	Distempering with 1st quality acrylic distemper (ready mixed) having VOC content less than 50 gram/litre, of approved manufacturer and of required shade and colour all complete to achieve even shade and colour:					
11.8.1	New work (two or more coats) over and including water thinnable priming coat with cement primer having VOC content less than 50 gram/litre	8979.26	sqm			
11.9	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade:					
11.9.1	New work (Two or more coats applied @ 1.43 Itr/10 sqm over and including priming coat of exterior primer applied @ 0.90 litre/10 sqm)	2000.00	sqm			
11.1	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :					
11.10.1	Two or more coats on new work	100.00	sqm			
11.11	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.	12000.00	sqm			

11.12	Distempering 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					
11.12.1	Old work (one or more coats)	144944.18	sqm			
11.13	Wall painting with acrylic emulsion paint, 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.					
11.13.1	One coat	197.50	sqm			
11.13.2	Two coats	1002.91	sqm			
11.14	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content.					
11.14.1	With ready mixed pink or grey primer on wood work (hard and soft wood) having VOC content less than 50 grams/ litre	100.00	sqm			
11.14.2	With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre	1000.00	sqm			
11.15	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.	12000.00	sqm			
11.16	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade:					
11.16.1	One or more coats on old work	5000.00	sqm			
11.17	French spirit polishing :					
11.17.1	One or more coats on old work	100.00	sqm			
11.18	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade					
11.18.1	Old work (one or more coats applied @ 0.83 Itr/10 sqm).	10000.00	sqm			
12	**REPAIRS TO BUILDING**					
12.1	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq.meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.					

12.1.1	With cement mortar 1:4 (1cement: 4 coarse sand)	400.00	sqm			
12.2	Renewing glass panes, with putty and nails wherever necessary including racking out the old putty:					
12.2.1	Float glass panes of nominal thickness 4 mm (weight not less than 10kg/sqm)	100.00	sqm			
12.2.2	Float glass panes of nominal thickness 5 mm (weight not less than 12.5kg/sqm)	200.00	sqm			
12.3	Renewal of old putty of glass panes (length)	250.00	metre			
12.4	Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40 mm dia M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube challies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after .The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineer- in-charge .The elevational area of the scaffolding shall be measured for payment purpose .The payment will be made once irrespective of duration of scaffolding. Note: - This item to be used for maintenance work judicially, necessary deduction for scaffolding in the existing item to be done.	3000.00	sqm			

12.5	Cleaning of terrace/loft water storage tank (inside surface area) upto 2000 litre capacity at all heights with coconut brushes, duster etc., removal of silt, rubbish from the tank and cleaning the tank with fresh water disinfecting with bleaching powder @ 0.5gm per litre capacity of tank including marking the date of cleaning on the side of tank body with the help of stencil and paint and disposing of malba all complete as per direction of Engineer-in-Charge. (The old date already written on tank should be removed with paint remover or black paint and if date is not written with the stencil or old date is not removed deduction will be made @ Rs. 0.10 per litre) (if during cleaning any GI fittings or ball cock is damaged that is to be repaired by contractor at his own cost and nothing extra will be paid on this account)	457500.00	litre			
12.6	Cleaning of chocked sewer line by diesel running vehicle mounting hydraulic operated high pressure suction cum jetting sewer cleaning machine fitted with pump having 4000 litres suction capacity and 6000 litres water jetting tank capacity including skilled operator, supervising engineer etc. for cleaning and partial desilting of manholes and dechocking of sewer lines. Dechocking and flushing of sewer line from one manhole to another by high pressure jetting system of 2200 PSI for sewer line from 150mm dia upto 300mm	1200.00	metre			
12.7	Disconnecting damaged overhead/terrace PVC water storage tank of any size from water supply line and removing from the terrace including shifting at ground level as per direction of Engineer-in-charge.	25.00	each			
12.8	Providing & fixing White vitreous china water closet squatting pan (Indian type) along with "S" or "P" trap including dismantling of old WC seat and "S" or "P" trap at site complete with all operations including all necessary materials, labour and disposal of dismantled material i/c malba, all complete as per the direction of Engineer-in-charge.					
12.8.1	Orissa pattern W.C Pan of size 580x440 mm	10.00	each			

12.9	Cutting holes of required size in brick masonry wall for fixing of exhaust fan including providing and fixing 300 mm dia PVC pipe conforming BIS-12818 and making good the same etc. complete as per direction of Engineer-in-charge.	20.00	each			
12.1	Dismantling W.C. Pan of all sizes including disposal of dismantled materials i/c malba all complete as per directions of Engineer-in-Charge.	20.00	each			
12.11	Hacking of CC flooring including cleaning for surface etc. complete as per direction of the Engineer-in-Charge.	250.00	sqm			
12.12	Dismantling 15 to 40 mm dia G.I. pipe including stacking of dismantled pipes (within 50 metres lead) as per direction of Engineer- in-Charge.(a) Internal Work- Exposed on wall	100.00	metre			
12.13	Taking out existing wooden door shutter, repair by cutting, painting etc. and refixing of repaired door shutters to existing door frames, including replacement of hinges with screws, etc. as required, all complete as per the direction of the Engineer-in-charge.	500.00	each			
13	**Dismantling and Demolishing**					
13.1	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.					
13.1.1	Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix)	10.00	cum			
13.2	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.	5.00	cum			
13.3	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.					
13.3.1	In cement mortar	10.00	cum			
13.4	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :					
13.4.1	Of area 3 sq. metres and below	50.00	each			
13.4.2	Of area beyond 3 sq. metres	50.00	each			

13.5	Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 metres lead :					
13.5.1	Of area 3 sq. metres and below	10.00	each			
13.5.2	Of area beyond 3 sq. metres	2.00	each			
13.6	Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50 metres lead.	100.00	kg			
13.7	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.					
13.7.1	For thickness of tiles 10 mm to 25 mm	250.00	sqm			
13.8	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	50.00	sqm			
13.9	Demolishing brick tile covering in terracing including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	1000.00	sqm			
13.1	Demolishing mud phaska in terracing and disposal of material within 50 metres lead.	150.00	cum			
13.11	Dismantling C.I. or asbestos rain water pipe with fittings and clamps including stacking the material within 50 metres lead :					
13.11.1	75 to 80 mm dia pipe	50.00	metre			
13.11.2	100 mm dia pipe	50.00	metre			
13.12	Dismantling G.I. pipes (external work) including 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 :					
13.12.1	15 mm to 40 mm nominal bore	100.00	metre			
13.13	Dismantling of flushing cistern of all types (C.I./PVC/Vitrious China) including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead.	150.00	each			
13.14	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.	1000.00	sqm			

13.15	Dismantling aluminium/ Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable material and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge.	200.00	sqm			
14	**ROAD WORK**					
14.1	Providing and laying seal coat of premixed fine aggregate (passing 2.36 mm and retained on 180 micron sieve) with bitumen using 128 kg of bitumen of grade VG - 10 bitumen per cum of fine aggregate and 0.60 cum of fine aggregate per 100 sqm of road surface, including rolling and finishing with road roller all complete.	1000.00	sqm			
14.2	Providing, laying and making kerb channel 30 cm wide and 50 mmthick with cement concrete 1:3:6 (1 cement: 3 coarse sand:6 gradedstone aggregate 20 mm nominal size) over 75mm bed of dry brickballast 40 mm nominal size, well rammed and consolidatedand grouted with fine sand, including finishing the top smooth etc.complete and as per direction of Engineer-in-charge.	20.00	sqm			
14.3	Providing and laying 60mm thick faciory made cement concreteinterlocking paver block of M -30 grade made by block makingmachine with strong vibratory compaction, of approved size, design& shape, laid in required colour and pattern over and including 50mmthick compacted bed of coarse sand, filling the joints with line sandetc. all complete as per the direction of Engineer-in-charge.	300.00	sqm			
14.4	Providing and laying at or near ground level factory made kerb stoneof M-25 grade cement concrete in position to the required line, leveland curvature, jointed with cement mortar 1:3 (1 cement: 3 coarsesand), including making joints with or without grooves (thickness ofjoints except at sharp curve shall not to more than 5mm), includingmaking drainage opening wherever required complete etc. as perdirection of Engineer-in-charge (length of finished kerb edging shallbe measured for payment). (Precast C.C. kerb stone shall be approvedby Engineer-in-charge).	5.00	cum			

14.5	Providing and fixing G.I. chain link fabric fencing of required width inmesh size 50x50 mm including strengthening with 2 mm dia wire ornuts, bolts and washers as required complete as per the direction ofEngineer-in-charge.					
14.5.1	Made of G.I. wire of dia 4 mm	50.00	sqm			
14.6	Taking out existing kerb stones of all types from footpath/ centralverge, including removal of mortar etc., disposal of unserviceablematerial to the dumping ground, for which payment shall be madeseparately and stacking of serviceable material within 50 metre leadas per direction of Engineer-in-Charge.	20.00	metre			
14.7	Taking out existing CC interlocking paver blocks from footpath/ centralverge, including removal of rubbish etc., disposal of unserviceablematerial to the dumping ground, for which payment shall be madeseparately and stacking of serviceable material within 50 metre leadas per direction of Engineer-in-Charge.	50.00	sqm			
14.8	Laying old cement cocrete interlocking paver blocks of any design/shape laid in required line, level, curvature, colour and pattern overand including 50 mm thick compacted bed of coarse sand, filling thejoints with fine sand etc. all complete as per the direction of Engineer-in-charge. (Old CC paver blocks shall be supplied by the department free of cost)	50.00	sqm			
14.9	Laying at or near ground level old kerb stones of all types in positionto the required line, level and curvature, jointed with cement mortar1:3 (1 cement : 3 coarse sand), including making joints with or withoutgrooves (thickness of joints, except at sharp curve, shall not bemore than 5 mm), including making drainage opening whereverrequired etc. complete as per direction of Engineer-in-charge. (Lengthof finished kerb edging shall be measured for payment). (Old kerbstones shall be supplied by the department free of cost)	50.00	metre			
15	**SANITARY INSTALLATIONS**					

15.1	Providing and fixing water closet squatting pan (Indian type W.C.pan) with 100 mm sand cast Iron P or S trap, 10 litre low level whiteP.V.C. flushing cistern, including flush pipe, with manually controlleddevice (handle lever) conforming to IS : 7231, with all fittings andfixtures complete, including cutting and making good the walls andfloors wherever required:					
15.1.1	White Vitreous china Orissa pattern W.C. pan of size580x440 mm with integral type foot rests	20.00	each			
15.2	Providing and fixing white vitreous china pedestal type water closet(European type W.C. pan) with seat and lid, 10 litre low level whiteP.V.C. flushing cistern, including flush pipe, with manually controlleddevice (handle lever), conforming to IS : 7231, with all fittings andfixtures complete, including cutting and making good the walls andfloors wherever required :					
15.2.1	W.C. pan with ISI marked white solid plastic seat and lid	20.00	each			
15.3	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brasspillar taps, 32 mm C.P. brass waste of standard pattern, includingpainting of fittings and brackets, cutting and making good the wallswherever require:					
15.3.1	White Vitreous China Wash basin size 630x450 mmwith a single 15 mm C.P. brass pillar tap	30.00	each			
15.3.2	White Vitreous China Wash basin size 550x400 mmwith a pair of 15 mm C.P. brass pillar taps	30.00	each			
15.3.3	White Vitreous China Flat back wash basin size 450x300 mm with single 15mm C.P. brass pillar tap	15.00	each			
15.4	Providing and fixing wash basin with C.I. brackets, 15 mm dia CPBrass single hole basin mixer of approved quality and make, includingpainting of fittings and brackets, cutting and making good the wallswherever required:-(a) White Vitreous China Wash basin size 550x400 mm with a15 mm CP Brass single hole basin mixer	20.00	each			

15.5	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink asper IS:13983 with C.I. brackets and stainless steel plug 40 mm,including painting of fittings and brackets, cutting and making goodthe walls wherever required :					
15.5.1	Kitchen sink without drain board					
15.5.1.1	610x510 mm bowl depth 200 mm	10.00	each			
15.6	Providing and fixing white vitreous china pedestal type (European type/ wash down type) water closet pan.	50.00	each			
15.7	Providing and fixing 8 mm dia C.P. / S.S. Jet with flexible tube upto1 metre long with S.S. triangular plate to Eureopean type W.C. ofquality and make as approved by Engineer - in - charge.	50.00	each			
15.8	Providing and fixing P.V.C. low level flushing cistern with manuallycontrolled device (handle lever) conforming to IS : 7231, with all fittingsand fixtures complete.					
15.8.1	10 litre capacity - White	50.00	each			
15.9	Providing and fixing solid plastic seat with lid for pedestal type W.C.pan complete :					
15.9.1	White solid plastic seat with lid	20.00	each			
15.1	Providing and fixing P.V.C. waste pipe for sink or wash basin includingP.V.C. waste fittings complete.					
15.10.1	Flexible pipe					
15.10.1.1	32 mm dia	1000.00	each			
15.10.1.2	40 mm dia	200.00	each			
15.11	Providing and fixing 600x450 mm beveled edge mirror of superiorglass (of approved quality) complete with 6 mm thick hard boardground fixed to wooden cleats with C.P. brass screws and washerscomplete.	100.00	each			
15.12	Providing and fixing soil, waste and vent pipes :					
15.12.1	100 mm dia					
15.12.1.1	Centrifugally cast (spun) iron socket &spigot (S&S) pipe as per IS: 3989	90.00	metre			
15.13	Providing and fixing bend of required degree with access door, insertionrubber washer 3 mm thick, bolts and nuts complete.					
15.13.1	100 mm dia					
15.13.1.1	Sand cast iron S&S as per IS - 3989	20.00	each			
15.14	Providing and fixing plain bend of required degree.					
15.14.1	100 mm dia					

15.14.1.1	Sand cast iron S&S as per IS : 3989	30.00	each			
15.15	Providing and fixing single equal plain junction of required degree :					
15.15.1	100x100x100 mm					
15.15.1.1	Sand cast iron S&S as per IS - 3989	30.00	each			
15.16	Providing and fixing door piece, insertion rubber washer 3mm thick,bolts & nuts complete :					
15.16.1	100 mm					
15.16.1.1	Sand cast iron S&S as per IS - 3989	20.00	each			
15.17	Providing lead caulked joints to sand cast iron/centrifugally cast(spun) iron pipes and fittings of diameter :					
15.17.1	100 mm	150.00	each			
15.18	Providing and fixing trap of self cleansing design with screwed downor hinged grating with or without vent arm complete, including cost ofcutting and making good the walls and floors :					
15.18.1	100 mm inlet and 100 mm outlet					
15.18.1.1	Sand cast iron S&S as per IS: 3989	100.00	each			
16	**WATER SUPPLY**					
16.1	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 - Exposed on wall					
16.1.1	20 mm nominal dia Pipes	100.00	metre			
16.1.2	25 mm nominal dia Pipes	100.00	metre			
16.2	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work - Exposed on wall					
16.2.1	15 mm dia nominal bore	50.00	metre			
16.2.2	20 mm dia nominal bore	100.00	metre			
16.2.3	25 mm dia nominal bore	50.00	metre			
16.2.4	32 mm dia nominal bore	50.00	metre			
16.2.5	40 mm dia nominal bore	30.00	metre			
16.3	Providing and fixing G.I. Pipes complete with G.I. fittings and clamps, i/c making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making good the wall :					
16.3.1	15 mm dia nominal bore	100.00	metre			
16.3.2	20 mm dia nominal bore	100.00	metre			

16.4	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. External work					
16.4.1	20 mm dia nominal bore	50.00	metre			
16.5	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :					
16.5.1	25 mm nominal bore	10.00	each			
16.5.2	20 mm nominal bore	10.00	each			
16.5.3	32 mm nominal bore.	10.00	each			
16.5.4	40 mm nominal bore	10.00	each			
16.6	Providing and fixing uplasticised PVC connection pipe with brass unions :					
16.6.1	45 cm length					
16.6.1.1	15 mm nominal bore	400.00	each			
16.7	Providing and fixing C.P. brass shower rose with 15 or 20 mm inlet :					
16.7.1	100 mm diameter	200.00	each			
16.8	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) :					
16.8.1	15 mm nominal bore	50.00	each			
16.8.2	20 mm nominal bore	50.00	each			
16.8.3	25 mm nominal bore	10.00	each			
16.8.4	40 mm nominal bore	10.00	each			
16.9	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, IS : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	40000.00	per litre			
16.1	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 :					
16.10.1	15 mm nominal bore	150.00	each			
16.11	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms.					
16.11.1	15 mm nominal bore	150.00	each			
16.12	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931.					
16.12.1	15 mm nominal bore	100.00	each			
16.13	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931					
16.13.1	15mm nominal bore	300.00	each			

16.14	Providing and fixing C.P. Brass extension nipple (size 15mmx50mm) of approved make and quality as per direction of Engineer-in-charge.	100.00	each			
16.15	Providing and fixing PTMT bib cock of approved quality and colour.					
16.15.1	15mm nominal bore, 86 mm long, weighing not less than 88 gms	150.00	each			
16.16	Providing and fixing PTMT stop cock of approved quality and colour.					
16.16.1	15 mm nominal bore, 86 mm long, weighing not less than 88 gms	150.00	each			
16.17	Providing and fixing PTMT pillar cock of approved quality and colour.					
16.17.1	15 mm nominal bore, 125 mm long foam flow, weighing not less than 120 gms	150.00	each			
16.18	Providing and fixing PTMT Ball cock of approved quality, colour and make complete with Epoxy coated aluminium rod with L.P./ H.P.H.D. plastic ball.					
16.18.1	15 mm nominal bore, 105 mm long, weighing not less than 138 gms	50.00	each			
16.18.2	20 mm nominal bore, 120 mm long, weighing not less than 198 gms	50.00	each			
16.18.3	40 mm nominal bore, 206 mm long, weighing not less than 690 gms	10.00	each			
17	**DRAINAGE**					
17.1	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:1.5:3 mix (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand (zone-III) : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :					
17.1.1	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :					

17.1.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	2.00	each			
17.2	Supplying and fixing C.I. cover without frame for manholes :					
17.2.1	455x610 mm rectangular C.I. cover (light duty) the weight of the cover to be not less than 23 kg	15.00	each			
17.3	Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved quality					
17.3.1	L D- 2.5					
17.3.1.1	Rectangular shape 600x450 mm internal dimensions	15.00	each			
17.3.2	EHD - 35					
17.3.2.1	Circular shape 560 mm internal dia	15.00	each			
17.4	Supplying and fixing C.I. cover 300x300 mm without frame for gully trap (standard pattern) the weight of cover to be not less than 4.5 kg	25.00	each			
17.5	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 :					
17.5.1	For pipes 250 to 300 mm diameter	5.00	each			
17.6	Constructing brick masonry road gully chamber 45x45x77.5 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) with precast R.C.C. vertical grating complete as per standard design :					
17.6.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	10.00	each			
18	**ALUMINIUM WORK**					

18.1	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) :					
18.1.1	For fixed portion					
18.1.1.1	Powder coated aluminium (minimum thickness of powder coating 50 micron)	1000.00	kg			
18.1.2	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)					
18.1.2.1	Powder coated aluminium (minimum thickness of powder coating 50 micron)	1000.00	kg			
18.2	Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade l Type ll, 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.					
18.2.1	Pre-laminated particle board with decorative lamination on both sides	100.00	sqm			
18.3	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):					

18.3.1	With float glass panes of 5 mm thickness (weight not less than 12.50 kg/sqm)	100.00	sqm			
18.4	Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315, having brand logo embossed on the body / plate with double spring mechanism and door weight upto 125 kg, for doors, including cost of cutting floors, embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge.					
18.4.1	With stainless steel cover plate minimum 1.25 mm thickness	20.00	each			
18.5	Filling the gap in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.					
18.5.1	Upto 5mm depth and 5 mm width	100.00	metre			
18.6	Providing and fixing Brass 100mm mortice latch and lock with 6 levers without pair of handles (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.	30.00	each			
18.7	Providing and fixing aluminium round shape handle of outer dia 100 mm with SS screws etc. complete as per direction of Engineer-in-charge					
18.7.1	Powder coated minimum thickness 50 micron aluminium	10.00	each			
18.8	Providing and fixing anodised aluminium grill (anodised transparent or dyed to required shade according to IS: 1868 with minimum anodic coating of grade AC 15) of approved design/pattern, with approved standard section and fixed to the existing window frame with C.P. brass/ stainless steel screws @ 200 mm centre to centre, including cutting the grill to proper opening size for fixing and operation of handles and fixing approved anodised aluminium standard section around the opening, all complete as per requirement and direction of Engineer-in-charge. (Only weight of grill to be measured for payment).	150.00	kg			

19	**WATER PROOFING**					
19.1	Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying : (a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. This layer will be allowed to air cure for 4 hours. (b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.	50.00	sqm			
19.2	Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc consisting of following operations: (a) Applying a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with water proofing compound conforming to IS. 2645 and approved by Engineer-in-charge over the RCC slab including adjoining walls upto 300 mm height including cleaning the surface before treatment. (b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer- in-charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer- in-charge to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs. (c) After two days of proper curing applying a second coat of cement slurry using 2.75 kg/ sqm of cement admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge. (d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement :4 coarse sand) admixed with water					

	proofing compound conforming to IS : 2645 and approved by Engineer-in-charge including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3 mm deep. (e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test.“All above operations to be done in order and as directed and specified by the Engineer-in-Charge :					
19.2.1	With average thickness of 120 mm and minimum thickness at khurra as 65 mm.	1000.00	sqm			
19.3	Grading roof for water proofing treatment with					
19.3.1	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size)	10.00	cum			
19.3.2	Cement mortar 1:3 (1 cement : 3 coarse sand)	5.00	cum			
20	**NEW TECHNOLOGIES AND MATERIALS**					
20.1	Chipping of unsound/weak concrete material from slabs, beams, columns etc. with manual Chisel and/ or by standard power driven percussion type or of approved make including tapering of all edges, making square shoulders of cavities including cleaning the exposed concrete surface and reinforcement with wire brushes etc. and disposal of debris for all lead and lifts all complete as per direction of Engineer-In-Charge					
20.1.1	25 mm average thickness	900.00	sqm			
20.2	Cleaning of reinforcement from rust from the reinforcing bars to give it a total rust free steel surface by using alkaline chemical rust remover of approved make with paint brush and removing loose particles after 24 hours of its application with wire brush and thoroughly washing with water and allowing it to dry, all complete as per direction of Engineer-In-Charge.					
20.2.1	Bars upto 12 mm diameter	2000.00	metre			

20.3	Drilling suitable holes in reinforced or plain cement concrete with power driven drill machine to a minimum depth of 100 mm upto 200 mm in RCC beams, lintels, columns and slabs to introduce steel bars for sunshades/ balconies including fixing the steel bars in position using epoxy resin anchor grout of approved make but excluding the cost of reinforcement, all complete as per direction of Engineer-In-Charge.					
20.3.1	Upto and including 12 mm dia.	5400.00	each			
20.4	Providing, mixing and applying bonding coat of approved adhesive on chipped portion of RCC as per specifications and direction of Engineer-In-charge complete in all respect.					
20.4.1	Epoxy bonding adhesive having coverage 2.20 sqm/kg of approved make	900.00	sqm			
20.5	Providing and injecting approved grout in proportion recommended by the manufacturer into cracks/honey-comb area of concrete/masonry by suitable gun/pump at required pressure including cutting of nipples after curing etc. complete as per directions of Engineer-in-Charge. (The payment shall be made on the basis of actual weight of approved grout injected.)					
20.5.1	Epoxy injection grout in concrete/RCC work of approved make	300.00	kg			
20.6	Providing and fixing hard drawn steel wire fabric of size 75 x25 mm mesh or other suitable size wire mesh to be fixed & firmly anchored to the concrete surface by means of “L” shaped mild steel shear key welded with existing reinforcement including the cost of materials, labour, tool & plants as approved by Engineer-in-charge.	600.00	sqm			
21	Non Schedule Items					
21.1	Providing and fixing self adhesive frosted/decorative film on glass partition and glass door and windows of approoved design and make all complete as per direction of Engineer-in-charge.	50.00	sqm			

21.2	Providing and fixing roller blinds, the febric should be screen openness of 5% and composition of 75% PVC 25% polyster with fabric weight of 465 GSM with fire resistance grade of NSPA 701, BS 586 part- II with anodized aluminium channel weight, bracket and hangers etc. the fabric will be approved colour and shed of approved manufacturer complete. Make (VISTA/MAC/Marvel)	100.00	Sqm			
21.3	Providing and fixing C.P brass health faucet with SS flexible tube & stand (length 1 m) (Make- PRIMA - Modle No - PHF4307) with all necessary accessories complete as per the instructions of Engineer-in-charge.	100.00	each			
21.4	Providing and fixing Stainless steel SS grade 304, curtain rod 25 mm dia 1.20mm thick with two Stainless steel SS grade 304, brackets (curtain rod) 25 mm dia 1.20mm thick fixed with screws etc., wherever necessary complete :	200.00	each			
21.5	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). Marandi wood	1.00	cum			
21.6	Providing and fixing glazed shutters for doors, windows and clerestory windows using 4 mm thick float glass panes, (weight not less than 10 kg per sqm) fixing with ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws. Marandi Wood 35 mm thick shutters	20.00	sqm			
21.7	Providing and fixing wire gauge shutters using stainless steel grade 304 wire gauge with wire of dia 0.5 mm and average width of aperture 1.4 mm in both directions for doors, windows and clerestory windows with necessary screws : Marandi Wood 35 mm thick shutters with ISI marked M.S. pressed butt hinges bright finished of required size	20.00	sqm			

21.8	Providing and laying Grass paver block of M-30 grade 60 mm thick on 150 mm thick sub grade of compacted bed of brick bats 22.4 mm to 90 mm and base coarse filling with 50 mm thick Jammuna Sand and filling the holes with available earth i/e spreading well ramming, consolidating and finishing smooth etc all complete as per direction of the Engineer - in – charge.	100.00	sqm			
21.9	Providing, mixing and applying one coat over reinforcement bars zinc anti rust agent as per specification and direction of Engineer-in-charge (Dosage/coverage as per the site requirement). FAIR MATE (SAFE CORE R) Chipped surface area of concrete shall be measured for payment.	900.00	sqm			
21.10	Providing mixing & applying pre-batched one component polymer modified dual shrinkage compensated thixotropic cementious patch repair mortar as per the manufacturer specifications and as per the direction the Engineer-in-charge. The comperessive strength of polymer modified mortar shall be ≥ 45 Mpa (28 Days) according to ASTM C109. (Product :- Renderock S2 of Fosroc/ SikaTop® 122 HS of Sika / MasterEmaco S 348 of BASF or equivalent of Pidilite)For 20 mm thickness over slab, beams, columns and stair case slabs.	1000.00	sqm			
21.11	Providing and fixing 6mm thick plywood of approved brand and shade with suitable full threaded steel screws etc. on the backing of racks, drawer, cupboard, kitchen cabinet under kitchen counter etc. all complete as per direction of Engineer in-charge.	100.00	sqm			

21.12	1) Maintenance (within the Boys & Girls hostels in the campus of IITD) of sewerage, drainage system and desilting of gully traps etc. like opening/cleaning of chocked sewer by bamboo rod/waste pipes, drains, manholes, gully traps, water closets, wash basins, floor traps etc. at all floors and vertical. stacks of sewer pipes and rain water pipes of all sizes to keep sewerage and drainage system functional including disposal of silt, malba, waste, garbage etc. to the authorized dumping ground complete to the entire satisfaction and as per the direction of Engineer-in-Charge. (Rates are inclusive of cost of all labour and T & P including cleaning and desilting of manholes, S.W. pipes, and above described systems all complete on regular basis as per requirement and directions of the Engineer-in-charge.) 2) Maintenance and cleaning chajjas, roofs, expansion joints etc. of the campus buildings as per complainants and directions of the Engineer-in-charge including removing of cobwebs, beehives, vegetation including disposal of silt, vegetations, malba etc. to the authorized dumping ground to the entire satisfaction of the Engineer-in-Charge. 3) Maintenance, repairing and fixing of damaged doors, windows, ventilators of steel/wood/PVC etc. at all floors and fixing of necessary fittings wherever required to keep them in proper functional conditions and other complained carpentary work to the entire satisfaction and as per direction of the Engineer-in-Charge. 4) Maintenance and repair of plumbing system for the entire campus including stopping leakages or over flows of water from PVC/RCC over head tanks/water cisterns and repairs associated with the bib cock, stop cock, pillar cock, fittings, ball cocks etc. to keep the entire water supply system efficient and functional to the entire satisfaction and as per direction of the Engineer-in-Charge. 5) Running and maintenance of IITD service centres in Hostel maintenance unit individually wherein the following jobs are required to be performed. (Computer and peripherals i/c operating staff and necessary	12.00	Per Month Job			

	consumable software, internet /broadband connection shall be arranged by the contractor at his own cost) 6) Downloading the complaints received through IITD ERP system on daily basis for assigning the work to the workers of respective trade. Recording the complaints received at services centre in person or through telephone and issuing acknowledgment with complaint number to the complainants and assigning the work to the workers of respective trade. Uploading all the complaints received at the service centre in the IITD ERP system on daily basis. Uploading the status of attending of the complaints on daily basis on IITD ERP system so that the back log is not more than one day old. Preparing the abstract of attended / unattended complaints on daily, weekly and monthly basis and submitting the same to the concerned A.E/J.E.- in-Charge of the service centre or his authorized representative. Note: - The following minimum labour to be deployed by agency to run/operate the maintenance system from 8 AM to 10 PM (in shift of 8 Hours each) a) Sewerman- in two shift - 2 Nos. b) Plumber- (Grade-I) in two shift - 2 Nos c) Carpenter - (Grade-I) - 1 No d) Mason - (Grade-I) - 1 No e) Beldar - (Grade-III) - 1 No f) Operating staff (Grade-I) - 1 No					

21.13	Desilting and taking out silt debris rubbish etc. from open drain (Nallah) with the help of super sucker jet machine (Suction Jeting machine 2200 PSI machine) capable of having minimum 10000 Ltr. Capacity silt tank and 20HP Submersible pump set with electric panel board 62.5 KVA Diesel generater set. The machine will have high pressure water jetting pump with discharge capacity 390 LMP and pressure of minimum 140 bar jetting hose of 100 meter i/c all coast of labour (1 No Qualified foreman, 4 Nos S.G. Belder, operator,) material, T & P, watch & ward caution board, diesel, mobil oil, grease etc. and wear and tear of machine complete. The silt debris shall be disposed as per direction of Engineer-in-charge. Any damage to existing structure be rectified at the cost of agency. Safety of Man power shall be responsibility of agency. (P/shift means 8 hours per day).	12.00	P/Shift (8 Hrs Per Day)			
21.14	Hiring of J.C.B machine for dispose of all waste debries, unserviceable, dismantled or waste material complete complete as per directions of Engineer-in-charge. (P/shift means 8 hours per day).	4.00	P/Shift (8 Hrs Per Day)			
22	**Credit of Dismantle Material**					
22.1	Credit for dismantled old Iron Scrap like steel windows / door frames, MS grills, MS bars, GI pipe and fittings etc.	300.00	Kg			
22.2	Credit for dismantled old Wooden Scrap like old flush doors, wooden frames, ply, board etc.	100.00	kg			
22.3	Credit for dismantled old Brass and CP Brass items like bib cock, stop cock, sink mixer, basin mixer, CP waste etc.	200.00	kg			
22.4	Credit for dismantled old PVC scrap like PVC cistern, PVC tanks, PTMT fittings etc.	300.00	kg			
22.5	Credit for dismantled old broken and damaged glass.	300.00	kg			
	Total A (Civil)					

	Part II (ELECTRICAL)					
	Comprehensive Maintenance (Sub Head (a)					
1	Round the clock (24 Hours, 7days) Operation & Maintenance of Electrical installation as per detailed in Annexure 'A' a by deploying following minimum staff as required.					
1.1	Day to Day Round the clock (24 Hours, 7days) Operation & Maintenance of Electrical & Mechanical installation with routine, preventive & minor breakdown maintenance of General Electricle & Mechanical Service for 17 Hostels (Nilgiri, Karakoram, Aravli, Jwalamukhi, Kumaon. Vindhyachal, New Nalanda, Shivalik, Zanskar, Satpura, Girnar, Udaigiri, Saptagiri, Dronagiri, Himadri, Kailash and Sahydri Hostels) of the whole IITD Campus. Technical Supervisor = 01No. Wireman / Mechanic Grade: 6 Nos. as per duty chart Helper Grade: 6 Nos. as per duty chart Note:- This items= includes the labour portion along with T & P required for the execution of work for materials covered.	12.00	Month			
1.2	Round the clock (24 Hours, 7days) manning and rescue operation of 29 Nos passinger lifts in Hostels: (New Nalanda Hostel: 6 x 8 passenger, Girnar : 4 x 8 passinger lifts, Udaigiri: 4 x 8 passinger lifts, Saptagiri Hostel 4 X 13 Passenger Lift, Dronagiri Hostel 4 X 8 Passenger Lift, Himadri 3 X 8 Passenger, Shyadri 4 X 8 Passenger lifts by deploying following manpower for lift operation. Mechanic / Lift Operator Grade Staff: 07 Nos. as per duty chart Helper Grade: 02 Nos. as per duty chart	12.00	Month			
2	Comprehensive Maintenance of solar water heater system installed at Dronagiri, Saptagiri and Sahyadri hostel Including checking, repair / replacement of spare as required, attending day to day complaints etc. [1 Job = Means CMC of each system per Month)	66.00	Job			

3	Comprehensive Annual Maintenance contract of Reverse Osmosis system plant. Consumable (like membrane, PPS filter, Big Blue Filter, Chemicals, media & Carbon, etc) Spare parts required during breakdown maintenance shall be arranged and replaced by the Contractor. (N.B.: 01 Job means during a period of one year)	35.00	Job			
4	Comprehensive Maintenance contract of OTIS Make 8X13 Passengers (884Kg) capacity. Speed of 1.0mps. ACD3 MRLS Controller, Checking, adjustment, servicing & replacement of spares as required in following location including attending day to day complaints etc. as required. Machine No 8874, 8875, 8876, 8877, 8878, 8879, 8880, 8881 Total Lifts 8Nos (DRONAGIRI, SAPTAGIRI HOSTEL) Period = 12 Months from date of start (1 Job Means per lift per month).	96.00	Job			
5	Comprehensive Maintenance contract of OTIS Make 8X13 Passengers (884Kg) capacity. Speed of 1.0mps. ACD3 MRLS Controller, Checking, adjustment, servicing & replacement of spares as required in following location including attending day to day complaints etc. as required. Machine No 4681, 4682, 4683, 4684, 468, 4685, 4686, 4687 Total Lifts 8 Nos (Udaigiri, Girnar Hostel) Period = 12 Months from date of start (1 Job Means per lift per month).	96.00	Job			
6	Comprehensive maintenance contract of TK Elevator (Thyssenkrupp) Make Lifts installed with 6 X 8 Passenger (544kg) Capacity speed of 1.0MPS ACD Control. Checking, adjustment, servicing & replacement of spares as required in New Nalanda Hostel at IIT Delhi Hauz Khas, New Delhi including attending day to day complaints etc as required. (Machine Number 13628, 13629, 13630, 13631, 13632 & 13801). Total Lifts = 06Nos. (1 Job Means per lift per month).	72.00	Job			

7	Comprehensive maintenenace of 03 Nos. 10 passenger lifts (Make:- Johnson) installed in Himadri Hostel (Girls Hostel) at IIT Delhi. Including servicing, routine check up all installation, sefety devices, alaram system & other accessories as applicable including attending day to day complaints etc as required.	36.00	Job			
8	Comprehensive Maintenance contract of KONE Make 4X13 Passengers (884Kg) capacity. Speed of 1.0mps. AC Variable Voltage & Variable frequency MRLS Controller, Checking, adjustment, servicing & replacement of spares as required including attending day to day complaints etc. as required at Sahyadri Hostel. Machine No 43943706, 43943707, 43943708 & 43943709 Period = 12 Months	48.00	Job			
	Special repair/ Minor work of E.I & Fans. (Sub Head (b)					
1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel 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.					
1.1	Group A	100.00	Point			
1.2	Group B	100.00	Point			
2	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc .as required.	30.00	Point			

3	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit alongwith 1 No. 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	300.00	Metre			
4	Wiring for light/ power plug with 4X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit alongwith 2 Nos. 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	300.00	Metre			
5	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required.					
5.1	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	400.00	Metre			
5.2	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	400.00	Metre			
5.3	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	200.00	Metre			
5.4	2 X 6 sq. mm + 1 X 6 sq. mm earth wire	100.00	Metre			
5.5	2 X 10 sq. mm + 1 X 6 sq. mm earth wire	150.00	Metre			
5.6	4 X 2.5 sq. mm + 2 X 2.5 sq. mm earth wire	150.00	Metre			
5.7	4 X 4 sq. mm + 2 X 4 sq. mm earth wire	200.00	Metre			
6	Rewiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable and 1.5 sq.mm FRLS PVC insulated copper conductor single core cable as earth wire in existing surface/ recessed steel/PVC conduit including dismantling as required.					
6.1	Group A	80.00	Point			
6.2	Group B	80.00	Point			
7	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel/ PVC conduit as required.					
7.1	3 x 1.5 sq. mm	200.00	Metre			
7.2	3 x 2.5 sq. mm	200.00	Metre			
7.3	3 x 4 sq. mm	150.00	Metre			
7.4	3 x 6 sq. mm	100.00	Metre			

8	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required.					
8.1	1 Pair	200.00	Metre			
9	Supplying and fixing of following sizes of steel conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required.					
9.1	20 mm	200.00	Metre			
9.2	25 mm	150.00	Metre			
10	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.					
10.1	20 mm	150.00	Metre			
10.2	25 mm	200.00	Metre			
11	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.					
11.1	5/6 amps switch	1000.00	Each			
11.2	2 way 5/6 A switch	20.00	Each			
11.3	15/16 A switch	200.00	Each			
11.4	3 pin 5/6 A socket outlet	500.00	Each			
11.5	6 pin 15/16 A socket outlet	150.00	Each			
11.6	Bell push	250.00	Each			
12	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.					
12.1	5/6 A switch	1200.00	Each			
12.2	2 way 5/6 A switch	90.00	Each			
12.3	15/16 A switch	1000.00	Each			
12.4	3 pin 5/6 A socket outlet	500.00	Each			
12.5	6 pin 15/16 A socket outlet	1000.00	Each			
12.6	Bell push	50.00	Each			
13	Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	500.00	Each			
14	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	200.00	Each			

15	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc. as required.					
15.1	1 or 2 Module (75mmX75mm)	100.00	Each			
15.2	3 Module (100mmX75mm)	200.00	Each			
15.3	4 Module (125mmX75mm)	50.00	Each			
15.4	6 Module (200mmX75mm)	100.00	Each			
15.5	8 Module (125mmX125mm)	50.00	Each			
15.6	12 Module (200mmX150nnm)	50.00	Each			
16	Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required.					
16.1	1 or 2 Module	200.00	Each			
16.2	3 Module	300.00	Each			
16.3	4 Module	100.00	Each			
16.4	6 Module	100.00	Each			
16.5	8 Module	50.00	Each			
16.6	12 Module	50.00	Each			
17	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 A modular socket outlet and 5/6 A modular switch, connections etc. as required.	60.00	Each			
18	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 A modular socket outlet and 15/16 A modular switch, connections etc. as required.	60.00	Each			
19	Supplying and fixing 3 pin, 5 A ceiling rose on the existing junction box/ wooden block including connections etc. as required.	80.00	Each			
20	Supplying and fixing brass batten/ angle holder including connection etc. as required.	100.00	Each			
21	Supplying and fixing call bell/ buzzer suitable for single phase, 230 V, complete as required.	100.00	Each			
22	Installation, testing and commissioning of pre-wired, fluorescent fitting / compact fluorescent fitting of all types, complete with all accessories and tube/lamp etc. directly on ceiling/ wall, including connections with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	100.00	Each			

23	Installation, testing and commissioning of pre-wired, fluorescent fitting / compact fluorescent fitting of all types, complete with all accessories and tube/lamp etc., including supplying and fixing ball and socket arrangement, 2 Nos. down rods of 20 mm dia X 1.6 mm thick steel conduit upto 30 cm length, painting and wiring the down rods and connections with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.	100.00	Each			
24	Providing and fixing extra conduit down rod of 20 mm dia, 2 X 10 cm length, wiring with 2 X 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable including painting etc. as required. (Note: More than 5 cm length shall be rounded to the nearest 10 cm and 5 cm or less shall be ianored)	50.00	Each			
25	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable etc. as required.	50.00	Each			
26	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable, including providing and fixing phenolic laminated sheet cover on the fan box etc. as required.	50.00	Each			
27	Installation of exhaust fan in the existing opening, including making good the damage, connection, testing, commissioning etc. as required.					
27.1	Upto 450 mm sweep	20.00	Each			
28	Extra for fixing the louvers/ shutters complete with frame for a exhaust fan of all sizes.	20.00	Each			
29	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providng and fixing 2 nos. 3 pin 5/6 A modular socket outlet and 2 nos. 5/6 A modular switch, connections etc. as required. (For light plugs to be used in non residential buildings).	20.00	Each			

30	Supplying and fixing PVC batten/ angle holder including connections etc. as required.	20.00	Each			
31	Providing and fixing following rating and breaking capacity and pole MCCB with thermomagnetic release and terminal spreaders in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required.					
31.1	100 A,30KA,FPMCCB	10.00	Each			
31.2	125 A,36KA,FPMCCB	10.00	Each			
31.3	200 A,36KA,FPMCCB	5.00	Each			
31.4	250 A,36KA,FPMCCB	3.00	Each			
31.5	250 A,50KA,FPMCCB	3.00	Each			
31.6	400 A,50KA,FPMCCB	3.00	Each			
32	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)					
32.1	6 way , Double door	10.00	Each			
32.2	8 way , Double door	10.00	Each			
32.3	12 way , Double door	10.00	Each			
32.4	16 way, Double door	10.00	Each			
33	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MOB distribution board, 415 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)					
33.1	6 way (4 + 18), Double door	5.00	Each			
33.2	8 way (4 + 24), Double door	5.00	Each			
34	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MOB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer) as required . (Note : Vertical type MOB TPDB is normally used where 3 phase outlets are required.)					
34.1	4 way (4 + 12), Double door	5.00	Each			
34.2	8 way (4 + 24), Double door	5.00	Each			

34.3	12 way (4 + 36), Double door	5.00	Each			
35	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MOB DB complete with connections, testing and commissioning etc. as required.					
35.1	Single pole	600.00	Each			
35.2	Double pole	30.00	Each			
35.3	Triple pole	20.00	Each			
36	Supplying and fixing single pole blanking plate in the existing MOB DB complete etc. as required.	20.00	Each			
37	Supplying and fixing following rating, double pole, (single phase and neutral), 240 V, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
37.1	40A	5.00	Each			
37.2	63A	5.00	Each			
38	Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
38.1	40A	5.00	Each			
38.2	63A	5.00	Each			
39	Supplying and fixing DP sheet steel enclosure on surface/ recess along with 25/32 A 240 V "C" curve DP MCB complete with connections, testing and commissioning etc. as required.	50.00	Each			
40	Supplying and fixing TP sheet steel enclosure on surface/ recess along with 16/25/32 A 415 V "C" curve TP MCB complete with connections, testing and commissioning etc. as required.	50.00	Each			
41	Supplying and fixing Cable End Box (Loose Wire Box) suitable for following single pole and neutral, sheet steel, MCB distribution board, 240 Volts, on surface/ recess, complete with testing and commissioning etc. as required.					
41.1	For 8 way, Double door SPN MCBDB	10.00	Each			

42	Supplying and fixing Cable End Box (Loose Wire Box) suitable for triple pole and neutral, sheet steel, Vertical MCB distribution board, 415 Volts, on surface/ recess, complete with testing and commissioning etc. as required.	10.00	Each			
43	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray (Galvanisation thickness not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required.					
43.1	150 mm width X 50 mm depth X 1.6 mm thickness	40.00	Metre			
43.2	300 mm width X 50 mm depth X 1.6 mm thickness	40.00	Metre			
44	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "bends" (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required.					
44.1	150 mm width X 50 mm depth X 1.6 mm thickness	3.00	Each			
44.2	300 mm width X 50 mm depth X 1.6 mm thickness	3.00	Each			
45	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "Tee" (galvanisation not less than 50 microns) with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with G.I. suspenders including G.I. bolts & nuts, etc. as required.					
45.1	150 mm width X 50 mm depth X 1.6 mm thickness	3.00	Each			
45.2	300 mm width X 50 mm depth X 1.6 mm thickness	3.00	Each			
46	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	10.00	Each			

47	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. (but without charcoal/ coke and salt) as required.	10.00	Set			
48	Supplying and laying 6 SWG G.I. wire at 0.50 metre below ground level for conductor earth electrode, including connection/ termination with GI thimble etc. as required.	200.00	Metre			
49	Providing and fixing 6 SWG dia GI. wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ subnnain wiring/ cable as required.	800.00	Metre			
50	Providing and fixing earth bus of 50 mm X 5 mm copper strip on surface for connections etc. as required.	3.00	Metre			
51	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.					
51.1	3 X 10 sq. mm (22mm)	6.00	Each			
51.2	3 X 16 sq. mm (25mm)	6.00	Each			
51.3	3 X 25 sq. mm (25mm)	8.00	Each			
51.4	3.5X 35 sq. mm (32mm)	4.00	Each			
51.5	3.5 X 50 sq. mm (35mm)	4.00	Each			
51.6	3.5 X 70 sq. mm (38mm)	6.00	Each			
51.7	3.5 X 95 sq. mm (45mm)	6.00	Each			
51.8	3.5 X 120 sq. mm (45mm)	6.00	Each			
51.9	3.5 X 150 sq. mm (50mm)	6.00	Each			
51.1	3.5 X 185 sq. mm (57mm)	4.00	Each			
51.11	4 X 10 sq. mm (25mm)	10.00	Each			
51.12	4 X 16 sq. mm (28mm)	8.00	Each			
51.13	4 X 25 sq. mm (28mm)	8.00	Each			
52	Supplying and making straight through joint with heat shrinkable kit including ferrules and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.					
52.1	3.5 X 35 sq. mm	4.00	Each			
52.2	3.5 X 50 sq. mm	4.00	Each			
52.3	3.5 X 70 sq. mm	4.00	Each			
52.4	3.5 X 95 sq. mm	2.00	Each			
52.5	3.5 X 120 sq. mm	4.00	Each			
52.6	3.5 X 150 sq. mm	4.00	Each			

53	Erection of metallic pole of following length in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required.					
53.1	Above 4.5 metre and upto 6.5 metre	2.00	Each			
54	Supplying,installation,testing and commissioning of Passive Infrared(PIR) technology based occupancy sensor having high preformance, non regulating programmable type, suitable for connected load upto 10Annp , for mounting height up to 2.8 nntr and for 5 m diameter coverage area along with necessary fixing arrangements i/c programming at site etc. complete as required.	40.00	Each			
55	Supplying,installation,testing and commissioning of Astronomical time switch of following configuration to be mounted in feeder pillars / Lighting DBs for automatic switching On & OFF of street lights at sun set & sun rise or twilight(Auto ON, Auto OFF, Auto modes) with manual override facility with 12/24 hour display format with suitable battery and indication for relay status i/c programming at site complete as required.					
55.1	1 output per phase and suitable for single phase supply	10.00	Each			
55.2	2 output per phase and suitable for single phase supply	10.00	Each			
56	Supplying, installation, testing & commissioning of heat detector operating at 54°C/57°C with rate of rise cum fixed tempreature (dual thermistor) type with mounting base complete with all connection etc. as required.	20.00	Each			
57	Supplying, installation, testing & commissioning of smoke detector with builtin LED and mounting base complete with all connections etc. as required.	20.00	Each			
58	Supplying, installation, testing & commissioning of manual call boxes of MS construction in surface/recess with stainless steel chain & hammer assembly complete with glass and push button etc. as required.	20.00	Each			

59	Supplying, installation, testing & commissioning response indicator on surface/recess MS box having two LEDs metallic cover complete with all connections etc. as required.	20.00	Each			
60	Supplying, installation, testing & commissioning fire alarm sounder with facility to make announcement, mounted in M.S. box (16 SWG) with hinged cover plate & suitable for operation with amplifier i/c line matching transformer etc. complete as required.	20.00	Each			
61	Supplying, installation, testing and commissioning of micro processor based intelligent addressable main fire alarm panel, central processing unit with the following loop modules and capable of supporting not less than 240 devices (including detectors) and minimum 120 detectors per loop and loop length up to 2 km, network communication card, minimum 320 character graphics/ LCD display with touch screen or other keypad and minimum 4000 events history log in the non volatile memory (EPROM), power supply unit (230 ± 5 % V, 50 hz), 48 hrs back-up with 24 volt sealed maintenance free batteries with automatic charger. The panel shall have facility to connect printer to printout log and facility to have seamless integration with analog/digital voice evacuation system (which is part of the schedule of work under SH: PA System) and shall be complete with all accessories . The panel shall be compatible for IBMS system with open protocol BACnet/ Modbus over IP complete as per specifications.					
61.1	Ten Loop Panel.	1.00	Each			
61.2	Two Loop Panel.	1.00	Each			

62	Supply, Installation, Testing and Commissioning of 1200 mm sweep, BEE 5 star rated, ceiling fan with Brush Less Direct Current (BLOC) Motor, class of insulation: B, 3 nos. blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, Power Factor not less than 0.9, Service Value (CM/M/W) minimum 6.00, Air delivery minimum 210 Cum/Min , 350 RPM (tolerance as per IS : 374-2019), THD less than 10%, remote or electronic regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 degree C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC Supply, earthing etc. complete as required.	500.00	Each			
63	Supplying and installation of Recess/ Surface mounting LED luminaire equipped with CRCA powder coating housing, anti glare polycarbonate diffuser with energy efficient electronic driver with following features:- Suitable for operating voltage and frequency: 130-300 Va.c, 50 Hz.; wattage not more than 36 Watts;Output lumens not less than 3300 lm; CCT 6000K; Dimension in mm (595X595); Nominal surge protection 2.5 kV;Power factor not less than 0.9; Minimum IP protection 20	50.00	Each			
64	Supplying and installation of Recess/Surface mounting round LED luminaire equipped with die-cast aluminium / CRCA housing, anti glare polycarbonate diffuser with energy efficient electronic driver with following features:-Suitable for operating voltage and frequency: 130-300 Va.c, 50 Hz.; wattage not more than 12 Watts;Output lumens not less than 650 lm; CCT 6000K; Nominal surge protection 2.5 kV;Power factor not less than 0.9; Minimum IP protection 54	200.00	Each			
65	Supplying and installation of Surface mounting LED Industrial Batten light with following features:- Suitable for operating voltage and frequency: 130-300 Va.c, 50 Hz.; wattage 40 Watts; Length 1200mm; Nominal surge protection 2.5 kV; IP 66. THD<10 %	120.00	Each			

66	Supplying and installation of Surface mounting LED Batten light with following features:- Suitable for operating voltage and frequency: 130-300 Va.c, 50 Hz.; wattage 20 Watts; Length 1100-1200mm; Nominal surge protection 2.5 kV; IP 54.;	1000.00	Each			
67	Supplying and installation of Surface mounting Mirror light with following features:- Suitable for operating voltage and frequency: 130-300 Va.c, 50 Hz.; wattage 10 Watts; Length 450-600mm; Nominal surge protection 2.5 kV; IP 54.;	50.00	Each			
68	Supplying and installation of Surface wall mounting bracket LED bulk head with energy efficient electronic driver with following features:- Suitable for operating voltage and frequency: 130-300 Va.c, 50 Hz.; wattage 10 Watts;Output lumens not less than 1000 lm; CCT 6500K; Nominal surge protection 2.5 kV;Power factor not less than 0.9, IP 66.	50.00	Each			
69	Supply and fixing and connecting & commissioning following LED lamps in existing fitting as reqd.LED bulb 5W to 10 W.	50.00	Each			
70	Supplying and installation of LED flood light with energy saving, environmental friendly, long life, exclusive innovative die-cast aluminium IP66, suitable for highlighting architectural facade and general purpose lighting with following features:- Suitable for operating voltage and frequency: 130-300 Va.c, 50 Hz.; wattage 100 Watts; Nominal surge protection 2.5 kV; IP 66. THD<10 %	50.00	Each			
71	Supplying and installation of 25W, LED Post Top fitting IP65 LED along with uniformity of light required for perfect outdoor application, long life, energy efficient, envirnment friendly, with following features:- Suitable for operating voltage and frequency: 130-300 Va.c, 50 Hz.; wattage 25 Watts; Nominal surge protection 2.5 kV; IP 65. THD<10 %	50.00	Each			

72.00	Supplying and installation of Decorative 8W LED Bollard, Cylinderical / Triangular shape with opel acrylic, minimum 600mm length complete with LED electronic driver with IP65 LED along with uniformity of light required for perfect outdoor application, long life, energy efficient, envirnment friendly, with following features:- Suitable for operating voltage and frequency: 130-300 Va.c, 50 Hz.; wattage 8 Watts; Nominal surge protection 2.5 kV; IP 65. THD<10 %	50.00	Each			
73	Supply and fixing of the following material for maintenance of external and internal electrical installation, less for credit of dismental material on as is where available to be installed.					
73.1	AC Plug Top 20A	100.00	Each			
73.2	AC Socket 20A	100.00	Each			
73.3	Batten (20mm) PVC	300.00	Metre			
73.4	Batten (25mm) PVC	300.00	Metre			
73.5	Wire Aluminium 1C x 1.5 Sqmm	500.00	Metre			
73.6	Wire Aluminium 1C x 2.5 Sqmm	500.00	Metre			
73.7	Wire Aluminum 1C x 4 Sqmm	600.00	Metre			
73.8	Wire Aluminum 1C x 6 Sqmm	600.00	Metre			
73.9	Wire Aluminum 1C x 10 Sqmm	400.00	Metre			
73.10	Wire Aluminum 1C x 16 Sqmm	200.00	Metre			
73.11	Wire Copper (3C x 1.5Sqmm)	400.00	Metre			
73.12	Wire Copper (3C x 2.5 Sqmm)	400.00	Metre			
73.13	Fan Ceiling 900mm (36") Complete	50.00	Each			
73.14	Fan Ceiling 1400mm (56") Complete	200.00	Each			
73.15	Fan Exhaust 300mm (12") Complete	50.00	Each			
73.16	Fan Exhaust 380mm (15") Complete	50.00	Each			
73.17	Fan Exhaust 450mm (18") Complete	40.00	Each			
73.18	Fan Fresh Air 150mm (6")	150.00	Each			
73.19	Fan Fresh Air 200mm (8")	50.00	Each			
73.20	Fan Fresh Air 250mm (10")	50.00	Each			
73.21	Fan Wall Mounting 400mm/450mm	40.00	Each			
73.22	Geyser 15 Litre	5.00	Each			
73.23	Geyser 25 Litre	10.00	Each			
73.24	Geyser 100 Litre	5.00	Each			
73.25	Geyser Inlet /Outlet Pipes	100.00	Set			
73.26	LED Bulb Pin/ Screw Type 10-20 watt	500.00	Each			
73.27	LED Bollard 6 -9 watts, Not less than 800 mm Height.	50.00	Each			
73.28	LED Bulk Head Fitting	300.00	Each			
73.29	LED Tube 18-22Watt.	800.00	Each			
73.30	LED Fitting 1x1' (300mmx300mm)	70.00	Each			

73.31	LED Fitting 1x4' (300mmx1200mm)	200.00	Each			
73.32	LED Street Light Fitting up to 30-40Watt	400.00	Each			
73.33	LED Street Light Fitting 45/50Watt	100.00	Each			
73.34	LED Street Light Fitting 60/70Watt	120.00	Each			
73.35	LED Street Light Fitting 90/120Watt	120.00	Each			
73.36	LED Flood Light Fitting 50Watt	200.00	Each			
73.37	LED Flood Light Fitting 90 - 120 Watt	150.00	Each			
73.38	LED Flood Light Fitting 350Watt	10.00	Each			
73.39	Post Top Fitting 40 Watt	80.00	Each			
73.40	Meter Energy Single Phase	5.00	Each			
73.41	Meter Energy three Phase	5.00	Each			
73.42	Plug Top 5/6/10A	150.00	Each			
73.43	Plug Top 15/16/20A	200.00	Each			
73.44	Plug Top 25 A	50.00	Each			
74	Fault Locating of LT cable with the help of fault locating machine, including identification and making of fault complete as required.	6.00	Job			
75	Making RCC foundation of size 250mmx250mmx600mm with 1:2:4 (1cement,2coarse,4stone aggregate) complete with 8mm dia MS bar for reinforcement along with centering & shuttering ,3/4 no. suitable dia G.I coated bolt with double nuts, 65mm dia 45cm length flexible pvc pipe with excavation the soil & refilling, ramming, curring etc as required.	20.00	Each			
76	Supplying, installation DLP mini-trunking 32mm x 20mm with independent cover etc. complete as reqd.[Make Legrand]					
76.1	PVC mini trunking with independent cover of size 32mm x 20mm size.	100.00	Metre			
76.2	PVC mini trunking End cap left or right.	10.00	Metre			
76.3	PVC mini trunking Internal/ External angle from 60°-120°	10.00	Each			
76.4	PVC mini trunking Flat angle from 85°-95°	10.00	Each			
76.5	PVC mini trunking Flat junction	10.00	Each			
77	Supplying and laying of PVC insulated, PVC sheathed XLPE aluminium conductor armored cable of Following size, 1.1 KV grade, direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc. as required. etc. as required [conforming to I.S-1554/1/8].					
77.1	4 X 16 sq. mm	100.00	Metre			
77.2	3½ X 35 sq. mm	100.00	Metre			

77.3	3½ X 50 sq. mm	100.00	Metre			
77.4	3½ X 70 sq. mm	100.00	Metre			
77.5	3½ X 150 sq. mm	100.00	Metre			
77.6	3½ X 300 sq. mm	100.00	Metre			
78	Supplying and laying of PVC insulated, PVC sheathed XLPE aluminium conductor armored cable of Following size, 1.1 KV grade in the existing RCC/ HUME/ METAL pipe as required. [conforming to I.S-1554/1/8].					
78.1	4 X 16 sq. mm	50.00	Metre			
78.2	3½ X 35 sq. mm	50.00	Metre			
78.3	3½ X 50 sq. mm	50.00	Metre			
78.4	3½ X 70 sq. mm	50.00	Metre			
78.5	3½ X 150 sq. mm	50.00	Metre			
78.6	3½ X 300 sq. mm	50.00	Metre			
79	supplying and laying and Fixing of PVC insulated, PVC sheathed XLPE aluminium conductor armored cable of Following size, 1.1 KV grade on wall surface as required.Upto 35 sq. mm (clamped with 1 mm thick saddle)Above 35 sq. mm and upto 95 sq. mm (clamped with 25x3mm [conforming to I.S-1554/1/8].					
79.1	4 X 16 sq. mm	100.00	Metre			
79.2	3½ X 35 sq. mm	100.00	Metre			
79.3	3½ X 50 sq. mm	100.00	Metre			
79.4	3½ X 70 sq. mm	100.00	Metre			
79.5	3½ X 150 sq. mm	100.00	Metre			
79.6	3½ X 300 sq. mm	100.00	Metre			
80	Supply and installation of SS enclosure duly powder Coated paint for housing incomming MCCB 4P, of appropiate size with incomming and outgoing opening, suitable to accommodate upto 70sqmm, 3.5 core aluminium armoured cable,with louvers for heat dissipation and mounting hole for easy wall mounting. (matter: AC / Normal / Emergency Power) etc. as required.	4.00	Each			
81	Supply and installation of SS enclosure duly powder Coated paint for housing incomming MCCB 4P, of appropiate size with incomming and outgoing opening, suitable to accommodate upto 300sqmm, 3.5 core aluminium armoured cable,with louvers for heat dissipation and mounting hole for easy wall mounting. (matter: AC / Normal / Emergency Power) etc. as required.	4.00	Each			
82	Electrical Panel board					

82.1	Design, Fabrication, Supplying, testing & commissioning of front operated cubicle type compartmentalized, front access free standing, dust and vermin proof (IP 54) panel board of 1750x 1550x 400 mm size suitable for use at 415 volt, 3 phase, 4 wire, 50 hertz system suitable for fault level of required value symmetrical at 415 volts, made out of 2mm thick CRCA MS sheet with hinged, gasketed (metal based neoprene) and lockable doors having structural reinforcement with suitable angle/channel/ T/ Flat/ sections including 3 mm thick gland plates on top and bottom and lifting hooks and GI earth strip of required size with 2 nos. earthing terminal and powder coated paint finish of approved shade over metal surface cleaned and treated with seven tank process complete with frame duly erection in ground and interconnection with copper conductor etc. as specification, as complete as required confirming to IS8623:93 as below. [Note:- The panel should be IS 8623:93, IEC 61439 part-1 and II manufacturer has to produces the relevant test certificate as per IEC code for the same failing which panel shall be rejected) and CPRI Approved.] Incoming (a) 400 amp, 4P, 36KA, 50HZ, 415V, AC MCCB with thermal magnetic based releases for O/C & S/C protection = 01 Nos. Bus Bar Electrolytic high conductivity aluminium, three phase and neutral busbars rated at 630 amps having a maximum current density of 120 A/sq cm suitable to with stand symmetrical fault level of 35 kA. at 415 Volts. The Neutral busbar is to be of 100% capacity. Outgoing (a) 250 amps, 4P, 36KA, 50HZ, 415V, AC MCCB with thermal magnetic based releases for O/C & S/C protection = 01 Nos. (b) 125 amps, 4P, 36KA, 50HZ, 415V, AC MCCB with thermal magnetic based releases for O/C & S/C protection = 04 Nos. (c) 63 amps, 4P, 36KA, 50HZ, 415V, AC MCCB with thermal magnetic based releases for O/C & S/C	1.00	Each			

	protection = 04Nos. (d) Earthing studs 2 Nos (e) Danger plate – 01 Nos Metering (a) Digital Ammeter - 01 Nos with accuracy class 1.0 (b) Digital Voltmeter - 01 Nos with accuracy class 1.0 (c) RYB indicating lamp (d) Suitable CT's (e) Rotatory handle in each switch					
82.2	Design, Fabrication, Supplying, testing & commissioning of front operated cubicle type compartmentalized, front access free standing, dust and vermin proof (IP 54) panel board of 1650x 1200x 400 mm size suitable for use at 415 volt, 3 phase, 4 wire, 50 hertz system suitable for fault level of required value symmetrical at 415 volts, made out of 2mm thick CRCA MS sheet with hinged, gasketed (metal based neoprene) and lockable doors having structural reinforcement with suitable angle/channel/ T/ Flat/ sections including 3 mm thick gland plates on top and bottom and lifting hooks and GI earth strip of required size with 2 nos. earthing terminal and powder coated paint finish of approved shade over metal surface cleaned and treated with seven tank process complete with frame duly erection in ground and interconnection with copper conductor etc. as specification, as complete as required confirming to IS8623:93 as below. [Note:- The panel should be IS 8623:93, IEC 61439 part-1 and II manufacturer has to produces the relevant test certificate as per IEC code for the same failing which panel shall be rejected) and CPRI Approved.] Incoming (a) 250 amp, 4P, 36KA, 50HZ, 415V, AC MCCB with thermal magnetic based releases for O/C & S/C protection = 01 Nos. Bus Bar Electrolytic high conductivity aluminium, three phase and neutral busbars rated at 400 amps having a maximum current density of 120 A/sq cm suitable to with stand symmetrical fault level of 35 kA. at 415 Volts. The Neutral busbar is to be of 100% capacity.	1.00	Each			

	Outgoing (a) 160 amps, 4P, 36KA, 50HZ, 415V, AC MCCB with thermal magnetic based releases for O/C & S/C protection = 01 Nos. (b) 125 amps, 4P, 36KA, 50HZ, 415V, AC MCCB with thermal magnetic based releases for O/C & S/C protection = 02 Nos. (c) 63 amps, 4P, 36KA, 50HZ, 415V, AC MCCB with thermal magnetic based releases for O/C & S/C protection = 04Nos. (d) Earthing studs 2 Nos (e) Danger plate – 01 Nos Metering (a) Digital Ammeter - 01 Nos with accuracy class 1.0 (b) Digital Voltmeter - 01 Nos with accuracy class 1.0 (c) RYB indicating lamp (d) Suitable CT's (e) Rotatory handle in each switch					
83	Supplying and laying of PVC innersheathed, XLPE insulated copper conductor armored cable of Following size, 1.1 KV grade, in the existing RCC/ HUME/ METAL pipe as required. [conforming to I.S-7098(Part 1) 1988.					
83.1	4 X 16 sq. mm	100.00	Metre			
83.2	4 X 25 sq. mm	100.00	Metre			
83.3	4 X 35 sq. mm	100.00	Metre			
84	Supplying and laying of PVC innersheathed, XLPE insulated copper conductor armored cable of Following size, 1.1 KV grade, on wall surface as required.Upto 35 sq. mm (clamped with 1 mm thick saddle) [conforming to I.S-7098(Part 1) 1988.					
84.1	4 X 16 sq. mm	120.00	Metre			
84.2	4 X 25 sq. mm	120.00	Metre			
84.3	4 X 35 sq. mm	100.00	Metre			
	Sub Head (b) Total					
85	**(Credit for dismentled material)**					
85.1	Old A/C Top / Socket	150.00	Each			
85.2	Old Aluminium Wire/ Cable	100.00	Kg			
85.3	Old Bell Buzzer	80.00	Each			
85.4	Old Bollard	40.00	Each			
85.5	Old Copper wire/ Cable	50.00	Kg			
85.6	Old DP box Different Sizes	10.00	Each			
85.7	Old LED Tube light	1500.00	Each			
85.8	Old tubelight fitting box type	250.00	Each			
85.9	Old LED tube light fitting use and through	1500.00	Each			

85.10	Old LED/ CFL round/ square down lighter	1800.00	Each			
85.11	1X4 LED / FCL / Flouresent fitting OLD	150.00	Each			
85.12	2X2 LED / FCL / Flouresent fitting OLD	100.00	Each			
85.13	Old Wall Bracket Fitting all Type	150.00	Each			
85.14	Old Bulk Head Fitting	100.00	Each			
85.15	Old LED Street light Fitting upto 50 Watts	50.00	Each			
85.16	Old LED Street light Fitting 50-100 Watts	90.00	Each			
85.17	Old LED Flood Light Fitting upto 100 Watts	150.00	Each			
85.18	Old Ceiling Fan of Different Sizes	800.00	Each			
85.19	Old exhaust fan 12'/15'/18' Complete	100.00	Each			
85.20	Old Fresh air fan (6'/8'/10')	250.00	Each			
85.21	Old Wall Mounting Fan	15.00	Each			
85.22	Old Geyser upto 15 Litre	10.00	Each			
85.23	Old Geyser 25 Litre	10.00	Each			
85.24	Old Geyser 35 Litre	10.00	Each			
85.25	Old Geyser 50 Litre	10.00	Each			
85.26	Old Geyser 70/100 Litre	10.00	Each			
85.27	Old MCB SP,DP,TP,TPN upto 63 Amp	500.00	Each			
85.28	Old MCCB of Different rating	40.00	Each			
85.29	Old Switch interior with Box upto 400Amp	20.00	Each			
85.30	Old Changeover Switch of Different size	10.00	Each			
85.31	Old Switch all type 5-20A	2000.00	Each			
85.32	Old Socket all type 5-20 A	1800.00	Each			
85.33	Old Fan Regulator	500.00	Each			
85.34	Old Energy Meter Single Phase	6.00	Each			
85.35	Old Energy Meter Three Phase	3.00	Each			
	(Credit for dismentled material)Total Sub Head [c]					
	Total B (Electrical) (subhead a+b+c= B)					

	Part III **(Air Conditioning Maintenance)**					
1	**Comprehensive maintenance [including routine & preventive]** and break down maintenance which includes all types of corrective actions like **repairing and replacement of all defective components** of high side of the Air conditioning plant comprising of all the machineries (Main chiller unit Evaporator, Condenser, Compressor, EXV, Valves, all VFDs, Control Cards, all other Electronic, Electrical and Mechanical components, Electrical Components starting from switchgears installed in Electrical Distribution panel for the chiller unit, sensors, pressure and temperature gauges, insulation, leak testing and leak repairing, pressure testing, as required). The contractor shall get the high side of the chiller unit maintained by the respective OEM of chiller or by their Authorised Dealer only. (a) The contractor shall take pro-active actions so that the chiller unit remains healthy and operational during the whole contract period. Recovery Rs.2000/- (Two thousand rupees) per day shall be made from the bill payable to the contractor for non-working the chiller unit 3 days after occurring the fault/snag. Recovery shall continue upto 30 days and after that repairing / replacement of the chiller shall be got done by the Engineer-in-charge at the risk and cost of the contractor without any notice. (b) Apart from that no payment shall be made for the period the chiller unit remains inoperative (non-functional) state. Proportionate deduction per day basis shall be made derived by dividing the contractual rate for job by 30 days.					
1.01	587 kW Cooling Capacity (Daikin Make, 2023, Model: PFS1701DBRYV) [1 job means per Chiller unit per month]	36	Job			
1.02	726 kW Cooling Capacity (Daikin Make, 2023, Model: PFS2151DBRYV) [1 job means per Chiller unit per month]	36	Job			

2	**Operation of high side & low side of the following Air conditioning plant comprising** of all the machinery, equipment installed in the AC Plant room and the entire system including cooling towers, AHUs in three shifts of 8 hours each. (a) **Contractor shall ensure** exclusive presence of at least one operator per shift per site. Deployment of same operator for two different sites simultaneously is not allowed. (b) **Operator shall be skilled** grade with minimum 2 years ITI course passed in Electrician / Fitter / Refrigeration / Air conditioning / Electronics / Mechanical trade from any Govt recognised Institute. (c) **Contractor shall pay** the wages to the operators not less than latest minimum wages as prescribed by Central Labour Commissioner for Delhi region. All labour regulations shall be followed. EPF & ESI as applicable shall be complied. (d) **Before claiming bill**, contractor shall have to submit biometric attendance proof of the operators alongwith wages payment proof (no cash payment is allowed), EPF & ESI payment as applicable. No reimbursement on account of EPF & ESI or wages increment etc. shall be made by IIT Delhi. (e) **Contractor shall be responsible** for any accident or eventuality or labour dispute. Training of the operators with proper protection shall be provided by the contractor. (f) **Recovery shall be made** from the bill payable to the contractor for want of operator in any shift at the rate of actual minimum wages as applicable at that time plus Rs.300 (Three hundred rupees) as penalty. (g) Labour regulation shall be strictly followed. Operator shall get one day rest after continuous 6 days duty and shall be paid at double rate if duty hours cross 48 hours in a week. Biometric face detection type attendance machine shall be provided by the contractor and attendance shall be collected and generated by the Engineer-in-charge or his representative in presence of the contractor.					
2.01	Sahyadri Hostel Air Conditioning	1095	Shift			

	System					
2.02	Dronagiri-Saptagiri Hostel Air Conditioning System	1095	Shift			
3	**<u>Comprehensive maintenance [including routine & preventive]</u>** and break down maintenance which includes all types of corrective actions like repairing and replacement of all defective components, associated electrical controls like contactor, overload relay, VFD as fitted with secondary pump, MCB, MCCB, connecting cables, bearing, seal, rewinding, etc. of following capacity pump-motor sets for their proper operation complete as required. (a) No payment shall be made for the period the pump-motor set remains non-functional. Proportionate deduction per day basis shall be made derived by dividing the contractual rate for job by 30 days. (b) Additional recovery shall be made at the rate of Rs.500/- (Five hundred rupees) per day from the bill payable to the contractor after 5 days of occurring of fault / non-operational. (c) Recovery shall continue upto 30 days and then repairing of the faulty unit shall be got done by the Engineer-in-charge at the risk and cost of the contractor without any notice.					
3.01	Primary Chiller Pump-Motor set Armstrong -make [5.5 KW (7.5 HP), 10.5 A, 1450 RPM] Sahyadri [1 job means per month per pump-motor set]	36	Job			
3.02	Primary Chiller Pump-Motor set Armstrong -make [5.5 KW (7.5 HP), 10.5 A, 1450 RPM] Drona-Saptagiri [1 job means per month per pump-motor set]	36	Job			
3.03	Secondary Chiller Pump-Motor set Armstrong -make [11 KW (15 HP), 1455 RPM] Sahyadri [1 job means per month per pump-motor set]	36	Job			
3.04	Secondary Chiller Pump-Motor set Armstrong -make [11 KW (15 HP), 1455 RPM] Drona-Saptagiri [1 job means per month per pump-motor set]	36	Job			
3.05	Condenser Pump-Motor set Armstrong -make [15 KW (20 HP), 1455 RPM] Sahyadri [1 job means per month per pump-motor set]	36	Job			

3.06	Condenser Pump-Motor set Armstrong-make [18.5 KW (25 HP), 33.5 A, 1460 RPM] Drona-Saptagiri [1 job means per month per pump-motor set]	36	Job			
3.07	Make up / Expansion Monoblock Pump-Motor set Wilo-make [1.2 KW, (1.6HP)] Drona-Saptagiri site [1 job means per month per pump-motor set]	24	Job			
4	**Comprehensive maintenance [including routine & preventive] and break down maintenance of Cooling Tower** which includes all types of corrective actions like repairing and replacement of all defective components, Fan blades, Hub, Gear box (if gear driven) as required. (a) Contractor shall ensure monthly cleaning of cooling tower by bleeding off and shall take preventive actions for algae formation. Contractor shall also ensure general cleaning of the cooling tower premises due to unwanted leakage and stagnation of water. And shall take actions to prevent leakage and stagnation of water on the roof outside the tower. (b) No payment shall be made for the period the Cooling Tower remains non-functional. Proportionate deduction per day basis shall be made derived by dividing the contractual rate for job by 30 days. (c) Additional recovery shall be made at the rate of Rs.500/- (Five hundred rupees) per day from the bill payable to the contractor after 5 days of occurring of fault / non-operational. (d) Recovery shall continue upto 30 days and then repairing of the faulty unit shall be got done by the Engineer-in-charge at the risk and cost of the contractor without any notice.					
4.01	For Sahyadri AC Plant's Cooling Tower (Make: BELL Cooling Towers Pvt Ltd) [1 job means per month per cooling Tower]	36	Job			
4.02	For Dronagiri-Saptagiri AC Plant's Cooling Tower (Make: Paharpur) [1 job means per month per cooling Tower]	36	Job			

5	**Comprehensive maintenance [including routine & preventive] and break down maintenance** which includes all types of corrective actions like repairing and replacement of all defective components, associated electrical controls like contactor, overload relay, VFD if fitted, MCB, MCCB, connecting cables, rewinding, etc. of following capacity cooling tower (CT) motor for their proper operation complete as required. (a) No payment shall be made for the period the CT motor remains non-functional. Proportionate deduction per day basis shall be made derived by dividing the contractual rate for job by 30 days. (b) Additional recovery shall be made at the rate of Rs.300/- (Three hundred rupees) per day from the bill payable to the contractor after 5 days of occurring of fault / non-operational. (c) Recovery shall continue upto 30 days and then repairing of the faulty unit shall be got done by the Engineer-in-charge at the risk and cost of the contractor without any notice.					
5.01	7.5 kW, 570 RPM motor of CT Sahyadri [1 job means per month per motor & other accessories]	36	Job			
5.02	10 kW For Dronagiri-Saptagiri AC Plant's Cooling Tower [1 job means per month per motor & other accessories]	36	Job			
6	**Supplying and fixing of "PVC Fills" of following size of modules including stitching materials**, dismantling and removing of existing damaged pvc fills from site for proper disposal etc., cleaning of cooling tower sump, cleaning of site, etc. as required. Make:- Sona / Mihir / Paharpur / Flowtech					
6.01	1800 X 600 x 300 mm (LxWxH)	150	Each			
6.02	600 X 300 X 150 mm (LxWxH)	200	Each			

7	**Topping up or charging of refrigerant (R-134a or as applicable)** after supplying it in cylinder in chiller unit as and when required. (a) Contractor shall always maintain ready stock of 120 kg refrigerant at site during the contract period failing which Rs.300 (Three hundred rupees) per day day shall be recovered from bill payable to the contractor till cost of the same is recovered based on contractual rate of refrigerant	300	kg			
8	**Descaling of condenser unit** with circulation of diluted chemical mixed water including opening of end plates for proper cleaning, flushing the system with fresh water, refixing plates etc. complete as required. (one job means de-scaling of one unit's condenser unit)	6	Job			
9	**Comprehensive maintenance [including routine & preventive]** and break down maintenance which includes all types of corrective actions like repairing and replacement of all defective components of following AHUs, repairing and rewinding / replacement of motors, drive belts, repairing of VFD (if any), electrical circuits, Servicing and thorough chemical cleaning of AHU cooling coils (6 row or 8 row) and fins of following capacities including proper removing of dirt and greasy materials deposited on the coils, rinsing following acidic and alkaline cleaning, cleaning of sludge from base tray, checking of alignment of fan-motor assembly, cleaning of blades of blowers, lubricating bearings, checking of electrical connections, terminals, tightening, removing of thermally damaged portion of connecting cables (if any), complete dusting of the body of the AHU, cleaning of pre-filters with detergent and fresh water with pressurisation jet pump (pressure not exceeding 30 psi), replacement of minor items like nuts-bolts, washers, lugs, straightening of bent out (partially closed fins) with wire brush, checking the tension of all belt drives and adjusting if necessary, cleaning of stainer, checking spring vibration isolators for abnormal vibrations and rectification, etc.,					

	opening and cleaning of strainer complete as required.					
9.01	1600 CFM [Dronagiri & Saptagiri - 4 and Sahyadri-1] [1 job means per month per AHU]	60	Job			
9.02	2000 CFM [Dronagiri & Saptagiri] [1 job means per month per AHU]	48	Job			
9.03	2500 CFM [Dronagiri & Saptagiri - 2 and Sahyadri-1] [1 job means per month per AHU]	36	Job			
9.04	3000 CFM [Dronagiri & Saptagiri] [1 job means per month per AHU]	12	Job			
9.05	3500 CFM [Dronagiri & Saptagiri] [1 job means per month per AHU]	60	Job			
9.06	5000 CFM [Dronagiri & Saptagiri - 2 and Sahyadri-2] [1 job means per month per AHU]	48	Job			
9.07	5500 CFM [Dronagiri & Saptagiri] [1 job means per month per AHU]	24	Job			
10	**Comprehensive maintenance [including routine & preventive]** and break down maintenance which includes all types of corrective actions like repairing and replacement of all defective components of following FCUs, repairing and rewinding / replacement of motors, electrical circuits, Servicing and thorough cleaning of FCU cooling coils and fins of following capacities including proper removing of dirt and greasy materials deposited on the coils, rinsing following acidic and alkaline cleaning as and when required, cleaning of sludge from base tray, checking of alignment of fan-motor assembly, cleaning of blades of blowers, lubricating bearings, checking of electrical connections, terminals, tightening, removing of thermally damaged portion of connecting cables (if any), complete dusting of the body of the AHU, cleaning of pre-filters with detergent and fresh water with pressurisation jet pump (pressure not exceeding 30 psi), replacement of minor items like nuts-bolts, washers, lugs, straightening of bent out (partially closed fins) with wire brush, cleaning of stainer mesh, repairing and replacement of defective 2 way valve (motorised valve), actuator, repairing and replacement of thermostat, cleaning of stainer, checking spring vibration isolators for abnormal					

	vibrations and rectification, etc., complete as required.					
10.01	1.0 TR 1.5TR / 2.0TR, Crystal make FCUs (Dronagiri-Saptagiri) [1 Each means per FCU per 12 Months]	890	Each			
10.02	1.0 TR 1.5TR / 2.0TR, Zeco make FCUs (Sahyadri) [1 Each means per FCU per 12 Months]	445	Each			
11	**Comprehensive maintenance [including routine & preventive]** and break down maintenance which includes all types of corrective actions like repairing and replacement of all defective components, switchgears, contactors, relay, CTs, MCBs, connectors, damaged cables, fuses, etc. in the main Electrical distribution panel for incoming power supply to all the components of the AC plant etc. as required.	2	Job			
12	Providing following items including fixing, proper testing as per direction of the Engineer-in-charge. The items are aimed to reduce downtime in hostels.					
12.01	Closed Cell electrometric nitrile rubber insulation of class "O" with suitable adhesive of 19 mm thick	200	sqm			
12.02	Butterfly valve (manual) with CI body SS disc nitrile sheet & O-ring & PN 16 pressure rating of 200 mm size	5	Each			
12.03	Butterfly valve (manual) with CI body SS disc nitrile sheet & O-ring & PN 16 pressure rating of 150 mm size	5	Each			
12.04	2 way modulating control valve with actuator (as per existing in FCU)	25	Each			
12.05	5 A to 32 A SP MCB 'C' curve, 240 /415 V, 10 kA	20	Each			
12.06	5 A to 32 A DP MCB 'C' curve, 240 / 415 V, 10 kA	20	Each			
12.07	5 A to 32 A TP MCB 'C' curve, 240 / 415 V, 10 kA	20	Each			
12.08	TP sheet steel enclosure with 16/25/32 A, 415 V "C" curve TP MCB	10	Each			
12.09	16 kA, 100 A TPMCCB with thermomagnetic release and terminal spreaders	4	Each			
12.10	FCU Motor, 38 W, single phase, 50 Hz, 940 rpm with adjustable speed	100	Each			
12.11	Wall fixing thermostat (Controller) for room FCU	200	Each			

13	**Providing and finishing with synthetic enamel paint (Colour to be decided by the Engineer-in-charge as per site requirement)** at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface etc. complete on MS pipe / structures surfaces. (Acceptable make: Asian Paint / Berger / Nerolac / Dulux / Nippon / Indigo)	200	Litre			
	Part C (AC Unit)					

Special Conditions:

1. Engineer-in-charge may foreclose the work whenever desired, In such eventually, payment of gross work done up to foreclosure date, PG of the contractor shall be refunded, but no payment on account of interest, loss of profit of damages etc. or any other claim shall be payable at all. Security deposit shall be released after completion of defect liability period starting from foreclosure date.
2. No labour huts shall be allowed in IIT campus and nothing shall be paid extra on this account.
3. The contractor should visit the site of work before quoting the rates.
4. No labour to stay in IIT Campus nothing shall be paid extra on this account.
5. The rates for different items of work shall apply for all Heights & Depths, Leads & Lifts and nothing extra shall be paid on these accounts.
6. Quoted Item rates of participating agencies shall be inclusive of GST.
7. Site shall be available in parts or phases as per direction of Engineer-in-charge & nothing extra on this amount shall be paid to contractor