



## **Notice Inviting Tender**

**Retrofitting, Renovation & modification work in the Neelkanth Community Centre in East campus at IIT Delhi.**

**Sub Head: - Civil, Electrical and HVAC work**

**Civil work amount : Rs. 3,35,48,117/-**

**Electrical work amount : Rs.93,49,043/-**

**HVAC work amount : Rs.65,18,819/-**

**Total Amount : Rs. 4,94,15,979/-**

**(WORKS DEPARTMENT)**

**INDIAN INSTITUTE OF TECHNOLOGY DELHI  
HAUZ KHAS, NEW DELHI**

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

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**Name of work:** - Retrofitting, Renovation & modification work in the Neelkanth Community Centre in East campus at IIT Delhi.

**Sub Head:** - Civil, Electrical & HVAC work.

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**Executive Engineer (ED-I)**

**AEE-in-charge (AC)**

**Executive Engineer (CD-III)**

**NIT approved for Rs. 4,94,15,979/- (Rupees Four Crores Ninety-Four Lakh Fifteen Thousand Nine Hundred Seventy-Nine only).**

**Institute Engineer**

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

**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 **Civil work /Building works/ Building & Roads/Composite works** of the following work:

NIT No.	:	..... IITD/EE(CD-III)/2025-26
Name of Work	:	<b>Retrofitting, Renovation &amp; modification work in the Neelkanth Community Centre in East campus at IIT Delhi.</b>
		<b>Sub Head: - Civil, Electrical &amp; HVAC work.</b>
Estimated cost	:	<b>Rs. 4,94,15,979/-</b>
Earnest Money	:	<b>Rs. 9,88,320/-</b>
Performance Guarantee	:	<b>5 % of Tendered value</b>
Security Deposit	:	<b>2.5% of Tendered Value</b>
Warranty	:	<b>1 Year for all Civil, Electrical work and Air Conditioning Work</b> <b>5 Years for Specialized work i.e. waterproofing, and LED Lighting Fixtures.</b>
Period for completion	:	<b>10 Months</b>
Late date & time for submission of bids	:	<b>05/01/2026 up to upto15.00 Hrs.</b>
Date & Time of opening of Bids	:	<b>06/01/2026 at 15.00 Hrs.</b>

The bid forms and other details can be obtained from the website [www.iitd.ac.in](http://www.iitd.ac.in) or e-Procure.gov.in free of cost. For more clarification you may visit on above website.

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

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**Budget Head: Renovation (Research Facility and Housing)/ 35.01.02(10E) / (2021/007/0593)**

**Copy to: -**

1. Institute Engineer
2. Executive Engineer (CD-III) for information.
3. D.A. (Works Accounts)
4. D.R. (A/Cs) – for opening of uploaded documents at **3:00 PM on 06/01/2026** in the office of D.R. Store
5. Notice Boards.
6. Office Copy
7. Web site Administrator, I.I.T.D.

**PART 'A'**  
**INDIAN INSTITUTE OF TECHNOLOGY DELHI**  
**HAUZ KHAS: NEW DELHI – 110016**  
**IITD/WORKS (SP-5213)/2025**

**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 invite online **Item Rate Tender** from Firms/ Contractors Registered in appropriate class and category with CPWD, MES, BSNL, and Railways **for Civil work /Building works/ Building & Roads/Composite works** of the following work:

SL. No.	NIT No.	Name of Work	Estimated Cost (in Rs.)	Earnest Money (in Rs.)	Time for Completion
1	/IITD/EE(CD-III)/2025-26.	<b>Name of work:</b> Retrofitting, Renovation & modification work in the Neelkanth Community Centre in East campus at IIT Delhi. <b>Sub Head:</b> - Civil, Electrical & HVAC work.	4,94,15,979/-	<b>9,88,320/-</b> (to be returned after submission of PG)	<b>10 Months</b>

**Last date and time of submission of financial & Technical bid** : **05/01/2026 upto 3:00 pm (online)**

**Date and time of opening of Technical bid** : **06/01/2026 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 date of completion plus 180 (One hundred eighty days) days beyond that.
2. Contractors who fulfill 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. 3,95,33,000/-** or Two similar works each of value not less than **Rs. 2,96,50,000/-** or three similar works each of value not less than **Rs. 1,97,67,000/-** during last 7 years ending on previous day of last day of submission of bids.
  - ii) **Earnest money of Rs. 9,88,320/-** in the form of Banker's cheque or Demand draft or fixed deposit receipt of a schedule bank drawn in favor of **Registrar, I.I.T. Delhi**. No relaxation in EMD will be allowed for MSMEs and MSEs as per CPWD Manual.
3. Similar work means **Composite work consisting of Civil and E&M.**
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 <http://eprocure.gov.in/eprocure/app> 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 the current costing level by enhancing the actual value of work at simple rate of 7% per annum calculated from the date of completion **to the last date of submission of the 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 favor 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 10 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 of opening of tender.
  - e. The Bidder does not upload ESI & EPF Registration.
25. Bid validity shall be **75 days** from 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 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. 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-I (duly filled & signed by the bidders)
12. Annexure-II (duly filled & signed by the bidders)
13. Annexure-III (duly filled & signed by the bidders)

**Note: - All Documents mentioned S.N. 1 to 10 are mandatory for technically qualifying, and documents mentioned 11 to 13 are not mandatory.**

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

**Budget Head: Renovation (Research Facility and Housing)/ 35.01.02(IOE) / (2021/007/0593)**

**Copy to: -**

1. Executive Engineer (CD-III) for information.
2. D.A. (Works Accounts)
3. D.R. (A/Cs) – for opening of tenders **on 06/01/2026 at 3:00 PM in the office of D.R. Store**
4. Notice Boards.
5. Office Copy
6. Web site Administrator, I.I.T.D
7. NIT: - Publicity on Website on Institute as well as on CPP portal <http://eprocure.gov.in> may be ensured as per instruction issued.
8. E-tendering Web. <http://eprocure.gov.in/eprocure/app> or [www.iitd.ac.in](http://www.iitd.ac.in)

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

Item rate tenders are invited on behalf of Board of Governors from contractors/firms engaged/ register in appropriate category having completed work in appropriate category for the **work** as per 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 contractor should be valid on the original date of submission of tenders.
- 1.1 The work is estimated to cost **as per 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 issue of 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 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 IITD 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. (Scanned copy to be uploaded at the time of submission of bid)**

2. Agreement shall be drawn with the successful bidders on prescribed Form No. IITD - 8 (or other Standard Form as mentioned) which is available as a Govt. of India Publication. Bidders shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
3. The time allowed for carrying out the work will be **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 tender documents.

**4. The site for the work is 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 <http://eprocure.gov.in/eprocure/app> or iitd.ac.in or e-procure.gov free of cost.
6. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of 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.
9. 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 bank guarantee also. In such case, 50% of earnest money or Rs. 20 lakh, whichever is less, will have to be deposited in shape prescribed above, and balance in shape of Bank Guarantee of any scheduled bank which is to be scanned and uploaded by the intending bidders.

Interested contractor who wish to participate in the bid has also to make following payments in the form of 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>.

10. 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 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 bid and hard copies as submitted physically in the office of tender opening authority.
  - (iv) The lowest bidder does not deposit physical EMD within a week of opening of tender.
  - (v) The Bidder does not upload ESI & EPF Registration
11. The time & date of submission & opening of financial bid of contractors qualifying the **criteria as per Tender Notice** shall be communicated to them at a later date.
12. 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.
13. 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.
14. 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.
15. 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.
16. 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.
17. 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 Superintending 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.

18. 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.
19. The tender for the works shall remain open for acceptance for a period of **Seventy Five (75)** days from last date of submission of 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.
20. 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 15 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.
21. 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.

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

## **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.

<b>Details of the item</b>	<b>As per Tender Notice</b>
<b>Earnest Money Deposit to be submitted</b>	<b>Rs. 9,88,320/-</b>
<b>Warranty</b>	<b>As per Tender Notice, NIT &amp; IITD form 8</b>
<b>Performance security</b>	<b>As per Tender Notice, NIT &amp; IITD form 8</b>

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 enroll / 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, Electrical & HVAC work.
Source of Fund (Institute/Project)		<b><u>Renovation (Research Facility and Housing)/ 35.01.02(IOE) / (2021/007/0593)</u></b>
Is Multi-Currency Allowed		No
Date of Issue/Publishing		24/12/2025 (15.00 Hrs)
Document Download/Sale Start Date		24/12/2025 (15.00 Hrs)
Document Download/Sale End Date		05/01/2026 (15.00 Hrs)
Date for Pre-Bid Conference		<b>Nil</b>
Venue of Pre-Bid Conference		---
Last Date and Time for Uploading of Bids		05/01/2026 (15.00 Hrs)
Date and Time of Opening of Technical Bids		06/01/2026 (15.00 Hrs)
Tender Fee	<b>NIL</b>	(To be paid through RTGS/NEFT/Offline Mode. 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) <b>or as per NIT/ Tender notice</b>
No. of Covers (1/2/3/4)		<b>02</b>
Bid Validity days (180/120/90/75/60/30)		<b>75 days (From last date of Submission of bid)</b>
Address for Communication		<b>Office of the Executive Engineer (Civil Division-III), Room No- MZ-137, Main Building, IIT Delhi, Hauz Khas, New Delhi-110016</b>
Contact No.		<b>011-26596237</b>
Fax No.		<b>Nil</b>
Email Address		<b><a href="mailto:a26516@admin.iitd.ac.in">a26516@admin.iitd.ac.in</a></b>

## **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>](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>](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) The 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**

<b>S.No.</b>	<b>Specification</b>
1.	<b>Due date:</b> The tender must 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.	<p><b>Preparation of Bids:</b> 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.</p> <p>OR</p> <p>Financial Bids to be submitted in Excel.</p> <p>The Technical bid and the financial bid should be submitted Online.</p>
3.	<b>EMD (if applicable): As per NIT</b>
4.	<b>Refund of EMD :- As per NIT</b>
5.	<b>Opening of the tender: As per Tender Notice, NIT &amp; IITD form 8</b>
6.	<b>Acceptance/ Rejection of bids:</b> The competent authority of IIT Delhi reserves the right to reject any or all offers without assigning any reason.
7.	<b>Pre-qualification criteria: - Mentioned in Tender notice</b>
8.	<b>Performance Security:-Mentioned in Tender notice</b>
9.	<b>Force Majeure :- As per IITD form 8</b>
10.	<b>Risk &amp; Cost Clause : As per IITD form 8</b>
11.	<b>Delivery and Documents: As per Tender Notice &amp; NIT &amp; IITD form 8</b>
12.	<b>Delayed delivery: As per Tender Notice &amp; NIT &amp; IITD form 8</b>
13.	<b>Prices: As per Tender Notice &amp; NIT &amp; IITD form 8</b>
14.	<b>Progress of Work :As per Tender Notice &amp; NIT &amp; IITD form 8</b>
15.	<b>Inspection and Tests: As per Tender Notice &amp; NIT &amp; IITD form 8</b>
16.	<b>Resolution of Disputes: As per Tender Notice &amp; NIT &amp; IITD form 8</b>
17.	<b>Applicable Law: As per Tender Notice &amp; NIT &amp; IITD form 8</b>
18.	<b>Supplier Integrity : As per Tender Notice &amp; NIT &amp; IITD form 8</b>
19.	<b>Training : As per Tender Notice &amp; NIT &amp; IITD form 8</b>
20.	<b>Installation &amp; Demonstration : As per Tender Notice &amp; NIT &amp; IITD form 8</b>

21.	<b>Incidental services: As per Tender Notice &amp; NIT &amp; IITD form 8</b>
22.	<b>Defect liability Period : As per Tender Notice &amp; NIT &amp; IITD form 8</b>
23.	<b>Governing Language : As per Tender Notice &amp; NIT &amp; IITD form 8</b>
24.	<b>Applicable Law : As per Tender Notice &amp; NIT &amp; IITD form 8</b>
25.	<b>Notices : As per Tender Notice &amp; NIT &amp; IITD form 8</b>
26.	<b>Taxes : As per Tender Notice &amp; NIT &amp; IITD form 8</b>
27.	<b>Termination for Default : As per Tender Notice &amp; NIT &amp; IITD form 8</b>
28.	<b>Disputes and Jurisdiction: As per Tender Notice &amp; NIT &amp; IITD form 8</b>
29.	<b>Completion certificate: As per Tender Notice &amp; NIT &amp; IITD form 8</b>

## **Bid Submission**

### **Online Bid Submission:**

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

<b>Bid Document – 1</b>			
(Following documents to be provided as single PDF file)			
<b>Sl. No.</b>	<b>Documents</b>	<b>Content</b>	<b>File Types</b>
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 as per Page-6 of NIT	.PDF
<b>Bid Document – 2</b>			
<b>Sl. No.</b>	<b>TYPES</b>	<b>Content</b>	
1.	Financial Bid	Price bid should be submitted in Excel format.	.xls

**INDIAN INSTITUTE OF TECHNOLOGY, DELHI**  
**HAUZ KHAS, NEW DELHI -**  
**110016 NOTICE INVITING**  
**TENDER**

Item rate tenders are 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** dealing with **Civil work / Building work/ Building & Road / Composite works** for the work of **Retrofitting, Renovation & modification work in the Neelkanth Community Centre in East campus at IIT Delhi.**

**Sub Head: - Civil, Electrical & HVAC work.**

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. 4,94,15,979/-** - 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 (rounded to nearest Rs. 1000/-) **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.**

**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 is 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](http://www.iitd.ac.in) or [e-procure.gov.in](http://e-procure.gov.in) free of cost.
6. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of 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:

- (i) The bidder is found ineligible.
- (ii) The bidder does not upload all the documents as stipulated in the bid documents.
- (iii) If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the lowest tenderer in the office of tender opening authority.
- (iv) The lowest bidder does not deposit physical EMD within a week of opening of tender.
- (v) The Bidder does not upload ESI & EPF Registration

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 Superintending 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 **Seventy Five (75) days** from the last date of submission of 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 15 days from the stipulated date of start of the work, sign the contract consisting of:-

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 up to 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 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 for bid for each of the minor component individually.
- 19.4 The eligible bidders shall quote rates 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 minor component. EE(CD-III) of major component will operate part A and EE(Elect) 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 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).

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

19.9 **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[E] and EE(CD-III), in charge of major and minor component. In case of change of associate contractor, the main contractor has to enter into agreement with the new contractor associated by him.

19.10- 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], discipline of minor component directly to the main contractor.

**19.10A 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.**

**19.10B Final bill of whole work shall be finalized and paid by the EE(CD-III) of major component. EE (E), in charge of minor component(s) will prepare and pass the final bill for their respective component of work and pass on the same to the EE of major component for including in the final bill for composite contractor.**



To,  
 .....  
 .....  
 .....

**Subject: - Retrofitting, Renovation & modification work in the Neelkanth Community Centre in East campus at IIT Delhi.**

**Sub Head: - Civil, Electrical & HVAC work.**

**NIT No. /IITD/EE (CD-III)/2025-26**

Dear Sir,

It is hereby 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)**

<b>ACCEPTANCE TO EXECUTE INTEGRITY PACT</b>	<b>I.I.T.D</b>
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**(To be signed by the bidder and upload the scanned copy)**

**To,**

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

**Subject: - Retrofitting, Renovation & modification work in the Neelkanth Community Centre in East campus at IIT Delhi.**

**Sub Head: - Civil, Electrical & HVAC work.**

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 in accordance with terms and conditions of the tender/bid.

Yours faithfully

(Duly authorized signatory of the Bidder)

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 endeavor 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)/Contractor(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 intentions.

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:

Date:

### 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 notwithstanding 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 180 Days** 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 notwithstanding 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 and Registration No.
  - 1.
  - 2.
  - 3.
5. Name and titles 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:**

<b>Sr. No.</b>	<b>Technical Bid Requirement As per Tender Notice &amp; NIT &amp; IITD form 8</b>	<b>Compliance Y/N</b>
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 page 8 of NIT. ( <b>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.</b> )	
6	Acceptance to execute INTEGRITY PACT.	
7	Undertaking as per <b>Page-5/ Sl. No. 20'</b> on firm's letter head. <b>"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"</b>	
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	Any other documents given in NIT	
15	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.

<p>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</p> <p>Undertaking in the last three years.</p>	<p>NAME &amp; ADDRESS of the Vendor/ Manufacturer / Agent</p>
1. Phone	
2. Fax	
3. E-mail	
4. Contact Person Name	<b>As per Tender Notice &amp; NIT</b>
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/Dept.**

**List of Government Organizations for whom the Bidder has undertaken such work As per Tender Notice & NIT & IITD form 8**

### Signature of

**Bidder Name:** \_\_\_\_\_

**Designation:** \_\_\_\_\_

**Organization Name:** \_\_\_\_\_

**Contact No. :** \_\_\_\_\_

**PART-B****INDIAN INSTITUTE OF TECHNOLOGY DELHI****HAUZ KHAS, NEW DELHI - 110016****Item Rate Tender & Contract for Composite Work**

**Tender for the work of Retrofitting, Renovation & modification work in the Neelkanth Community Centre in East campus at IIT Delhi.**

**Sub Head: - Civil, Electrical & HVAC work.**

To be submitted **as per tender notice** to

.....  
(i) 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 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 **Seventy-Five (75)** days from last date of submission of 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.I.T.D – 7/8 e-TENDERING	I.I.T.D
---------------------------	---------

**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 .....

**PROFORMA OF SCHEDULES****I.I.T.D****SCHEDULES (A to F)****(For Civil and Electrical Component)****SCHEDULE 'A'**

Schedule of quantities for **Civil, Electrical & HVAC 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
<b>-----NIL-----</b>				

**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
<b>-----NIL-----</b>			

**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 on slips/amendments issued up to last date of submission of bid.

Name of Work : **Retrofitting, Renovation & modification work in the Neelkanth Community Centre in East campus at IIT Delhi.**

**Sub Head:- Civil, Electrical & HVAC work.**

Estimated cost of work: : **Rs. 4,94,15,979/-**  
 Earnest Money: : **Rs. 9,88,320/-**  
 Performance Guarantee : 5 % of tendered Value  
 Security deposit : 2.5 % of tendered value

## **SCHEDULE 'F'**

### **GENERAL RULES & DIRECTIONS:**

1. 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 Clause-12

### **Definitions:**

2(i) Engineer-in-Charge : Major Work: Executive Engineer [CD-III]; Minor Work- For Electrical Work-Executive Engineer [ED-1] and for AC work: AEE-in-charge-AC Divn.  
 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 less Correction Factor on DSR 2023 on account of GST@0.973 + 3% cost Index & Market rate for NS items and DSR-2025 for Electrical work with up-to-date correction slip on date of submission of bid & Market Rate. For Air Conditioning Work: CPWD DSR 2025 (E&M) and Market rates**  
 2(v) Department: : **Works department at I.I.T Delhi**  
 2(vi) IITD Form & CPWD GCC for Maintenance work 2023, modified & corrected up to last date of submission of bid.

**Clause 1**

(i) Time allowed for submission of the Performance Guarantee from the date of issue of the 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, : 1 to 15 days

**Clause 2**

Authority for fixing compensation under Delay: : 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 milestone.
1	1/8th (of the whole work)	1/4th (of the whole work)	In the event of not achieving the necessary progress as assessed from the running payment, 1% of the Tender value of work will be withheld for failure of each milestone.
2	3/8th (of the whole work)	1/3th (of the whole work)	
3	3/4th (of the whole work)	3/4th (of the whole work)	
4	Full	Full	

Time Allowed for execution of work : **10 Months**

Authority to decide:

(i) Extension of Time : AD Infra / Dean Infra  
 (ii) Rescheduling of mile stones : Executive Engineer  
 (iii) Shifting of Date of start in case of Delay in handing over of site : Executive Engineer (CD-III)

**Clause 6** : **CMB Applicable**

**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. 25.00 Lakhs**

**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** : **Applicable****Clause 10C**

Component of labour expressed as percent of value of work: **25%** for civil work & **15%** for Electrical 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		
2.	Reinforcement bars		<b>Not Applicable</b>
3.	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** and Electrical General Specification for electrical 2013 (internal and external) Corrected slips & manufacturers Specifications up to the last date of bid submission/uploading of tender. Detailed nomenclature of items & specifications for market rate items as per the Engineer-in-charge. **For Air Conditioning Work:** CPWD Specifications for HVAC Work 2024 as amended up to date

**Clause 12**

Type of work	Maintainence work, including works of up-gradation, aesthetic, special repair, addition/alteration and HVAC work
12.2 & 12.3 Deviation limit beyond which clauses	100%
12.2 & 12.3 shall apply for building work	
12.5 (I) Deviation Limit beyond which clauses : 12.2 & 12.3 shall applicable for foundation work (Except items mentioned in earthwork subhead of DSR and related items)	100%
12.5 (II) Deviation Limit for Items in earth work subhead of DSR and related items	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**

<b>Constitution of Dispute Redressal Committee (DRC)</b>	
Chairman	
Member	NIL
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

<b>Cost of Work (Rs. In Crore)</b>	<b>Requirement of Technical Staff</b>		<b>Minimum Experience (Years)</b>	<b>Designation of technical staff</b>	<b>Rate at which recovery shall be made from the Contractor in the event of not fulfilling the provision of clause 32</b>
	<b>Qualification</b>	<b>Number (of Major + Minor component)</b>			
<b>More than 1.5 to 5 Cr.</b>	Graduate Engineer or Diploma Engineer	1+1	2 or 5 respectively	Project manager cum planning/quality/ Site/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 Engineer

**Clause 38**

i)	Schedule/statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rates 2023 with up-to-date correction printed by C.P.W.D.	
ii)	Variations permissible on theoretical quantities	
a)	Cement:	
	For works with estimated cost put to tender not more than Rs.5 lakh.	3% plus/minus. (Three percent)
	For works with estimated cost put to tender more than Rs.5 lakh	2% plus/minus. (Two percent)
b)	Bitumen all works.	2.5% plus & only & nil on minus side
c)	Steel Reinforcement and structural steel sections for each diameter, section and category	2% plus/minus (Two percent)
d)	All other materials	
e)	Schedule for determining the theoretical consumption of brickwork on the basis of DSR 2023	

## **SPECIAL CONDITIONS**

1. Non Judicial stamp paper worth Rs. 100/- (Hundred Rupees only) will be submitted by contractor which will have to be signed as token of acceptance.
2. No T & P shall be supplied by the Institute and contractor will have to make his own arrangement.
3. The contractors are advised to get acquitted with the proposed work including specifications & its site and additional conditions carefully before quoting. No claim of any sort shall be entertained or account of any site conditions and ignorance of specifications & additional conditions. The work shall be carried out as per the availability of site.
4. The work shall be carried out as per CPWD specifications for civil and electrical work 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, the decision of Engineer-in-Charge shall be final and binding on contractor.
5. 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. 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. Articles manufactured by the reputed firms as per approved make list and as approved by Engineer-in-charge shall only be used at work.
8. The sample of material required in the work brought at site shall be submitted prior Technical specification of individual item and got approval of material from Engineer –in-Charge before use in execution of work.
9. 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.
10. 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. The contractor shall make his own arrangement for getting the permission with respect to trucks from the Traffic Police.
12. No payment shall be made to contractor for any damage caused by the rain, snowfall or any other natural causes what so ever during the execution of work.
13. 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 IIT Campus. The contractor shall make his own arrangement 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. The contractor shall be fully responsible for the safe custody of the material issued or brought at site by him for doing the work.
15. The Malba / Garbage generated at 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 contractor.
16. The contractor shall clean the site thoroughly of scaffolding materials, rubbish, equipment's 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. Contractor has to quote against the item of schedule of credit of material. The contractor cannot quote either minus rate or Zero rate for these items.
18. Income tax and other taxes as applicable shall be deducted from the bills of the contractor.
19. 1% labor cess or as applicable will be deducted from the bills of the contractor.
20. 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. Agency has to take proper safety major during the execution of work.
22. **GCC form 7/8 shall form part of NIT and the bidder shall go through GCC 2023 CPWD before quoting rates and the same shall be deemed to be accepted by bidder if he participates in the tender.**
23. The contractor shall submit the program 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.
24. 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.
25. GST shall be considered as inclusive in quoted rate of agency.
26. Electrical work will be executed only through the agency who is having valid electrical license, and the copy of valid electrical license will be submitted before start of work.
27. For item of water proofing Guarantee Bond shall be submitted by contractor as per format provided by IIT Delhi.
28. A separate amount @ 10% of the cost of water proofing work shall be retained as a security for the performance of water proofing work. This withheld amount shall be released Five years after the expiry of maintenance period, if the performance of the work done is found satisfactory. If any defect is noticed during the guarantee period, it shall be rectified by the contractor within 7 days of receipt of intimation of defects in the water proofing work. If the defects pointed out are not attended within the specified period, the same will be got done from other agency at the risk & cost of contractor. This amount shall be in addition to the security deposit mentioned elsewhere in the contract form. The amount withheld may be released in full against bank Guarantee of equivalent amount in favor of the **Registrar, Indian Institute of Technology Delhi** of the prescribed period as mentioned above.
29. **QUALITY OF MATERIALS**
  - 29.1 All materials and equipment supplied by the contractor shall be new. They shall be of such design, size and materials as to satisfactorily function under the rated conditions of operation and to withstand the environmental conditions at site. **None of the material/ items/ equipment etc supplied shall be more than six months old from date of supply at site.** Copy of GST Gate Pass/ Invoice/ Shipment / Custom Clearance certificate/ details (in case of imported equipment) shall be submitted to prove the date of manufacture & genuineness of the equipment/ machines supplied.
30. The contractor shall be responsible for keeping the 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.
31. Work shall be executed as per the Architectural drawings and instructions of the Engineer in charge or his representatives. The Architectural drawing and instruction of the Engineer in charge or his representatives shall be strictly adhered to.
32. **Specialized work:** The following work will be treated as specialized work.
  - a) SITC of Addressable Fire Alarm and detection system.
  - b) SITC of CCTV System.
  - c) SITC of Audio-Visual System.
  - d) SITC of Lifts.
  - e) Waterproofing.

- f) Structural repair works
- g) SITC of Modular Furniture.

The Above Specialized work shall be carried out by specialized agencies/associated agencies /agencies on their own if they have experience of :-

- a) 3 similar works of 40 % value of specialized work component of tendered amount.
- b) 2 similar works of 60 % value of specialized work component of tendered amount.
- c) 1 similar work of 80 % value of specialized work component of tendered amount.

**The bidder should either himself meet the eligibility conditions for the work as above or otherwise he will have to associate an agency meeting the eligibility requirements for specialized works after award of work and has to submit details of such agency(s) conforming to eligibility conditions as defined in the bid document to the Engineer in charge before taking up specific component. Names of the agency(s) to be associated shall be approved by the engineer in charge . The contractor of the appropriate class shall have to associate other agency(s) for the execution of each of the work(s), which fulfils the eligibility criteria as defined after taking prior approval. The Composite Contractor and the associated specialized agencies shall give the required affidavit to confirm their association. Tender accepting authority may approve a change of sub-agency in case it is required during the currency of the contract. However, the composite category contractor shall also be eligible to carry out any or all these works without associating any specialized agency provided: -**

- a) He fulfills the prescribed eligibility criteria respectively for these work(s).

OR

He directly procures the equipment of approved make from the manufacturer and gets it installed by an authorized agency/ service provider of the manufacturer or specialized agency as per the criteria mentioned.

The main contractor, if does not fulfil the criteria himself, shall have to associate with a specialized agency fulfilling the following eligibility criteria having completed during last seven years ending up to the previous day of the last date of submission of tender as given below with a completion certificate issued by an officer not below the rank of Executive Engineer or Equivalent duly attested. The Completion certificate should contain the name of the contractor with address, Name of work and location, date of start of work, actual date of completion, amount of work done, satisfactory performance etc.

The following works are considered as specialized work.

Sl. No.	Specialized work(s) / item of work(s)	Criteria of associate agencies
1.	SITC of Addressable Fire Alarm and detection system.	<p>The associate agency should have successfully completed works, as mentioned under during last 7 years ending previous day of last date of submission of tender.</p> <ul style="list-style-type: none"> <li>a) 3 similar works of 40 % value of specialized work component of tendered amount.</li> <li>b) 2 similar works of 60 % value of specialized work component of tendered amount.</li> <li>c) 1 similar work of 80 % value of specialized work component of tendered amount.</li> </ul> <p>The value of executed similar 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 previous day of last day of submission of bids. (Specialized work shall means “SITC of Addressable Fire Alarm and detection system.”)</p>

2.	SITC of Fire Fighting System.	<p>The associate agency should have successfully completed works, as mentioned under during last 7 years ending previous day of last date of submission of tender.</p> <ul style="list-style-type: none"> <li>a) 3 similar works of 40 % value of specialized work component of tendered amount.</li> <li>b) 2 similar works of 60 % value of specialized work component of tendered amount.</li> <li>c) 1 similar work of 80 % value of specialized work component of tendered amount.</li> </ul> <p>The value of executed similar 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 previous day of last day of submission of bids. (Specialized work shall means "SITC of CCTV System.)"</p>
3.	Waterproofing	<p>The associate agency should have successfully completed works, as mentioned under during last 7 years ending previous day of last date of submission of tender.</p> <ul style="list-style-type: none"> <li>a) 3 similar works of 40 % value of specialized work component of tendered amount.</li> <li>b) 2 similar works of 60 % value of specialized work component of tendered amount.</li> <li>c) 1 similar work of 80 % value of specialized work component of tendered amount.</li> </ul> <p>The value of executed similar 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 previous day of last day of submission of bids. (Specialized work shall means "waterproofing.)"</p>
4.	Structural repair works	<p>The associate agency should have successfully completed works, as mentioned under during last 7 years ending previous day of last date of submission of tender.</p> <ul style="list-style-type: none"> <li>a) 3 similar works of 40 % value of specialized work component of tendered amount.</li> <li>b) 2 similar works of 60 % value of specialized work component of tendered amount.</li> <li>c) 1 similar work of 80 % value of specialized work component of tendered amount.</li> </ul> <p>costing level by enhancing the actual value of work at a simple rate of 7% per annum calculated from the date of completion to the previous day of last day of submission of bids. (Specialized work shall mean "Structural repair works.)"</p>
5.	SITC of Modular Furniture	<p>The associate agency should have successfully completed works, as mentioned under during last 7 years ending previous day of last date of submission of tender.</p> <ul style="list-style-type: none"> <li>(i) 3 similar works of 40 % value of specialized work component of tendered amount.</li> <li>(ii) 2 similar works of 60 % value of specialized work component of tendered amount.</li> <li>(iii) 1 similar work of 80 % value of specialized work component of tendered amount.</li> </ul>

		<p>The value of executed similar 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 previous day of last day of submission of bids. (Specialized work shall means "Structural repair works.)"</p>
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**SPECIAL TERMS AND CONDITIONS**  
**COMPREHENSIVE MAINTENANCE OF AIR CONDITIONING SYSTEM**

1. This section covers the maintenance schedule during guarantee period and 5 years subsequent to guarantee period.
2. The maintenance provided during the guarantee period and 5 years beyond that shall be fully comprehensive 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 shall be arranged by the contractor, if any replacement is warranted.
3. The maintenance shall also include a minimum 12 monthly preventive maintenance visits by qualified personnel who are thoroughly familiar with the type of equipment and system provided for this project.

See below: -

All VRF/VRV AC Units	Monthly inspection	<ol style="list-style-type: none"> <li>1. Inspect all Evaporator and condenser units</li> <li>2. Check all air filters and clean or change filters as necessary</li> <li>3. Check and re-calibrate modulating valves and controls. Adjust and rectify as necessary to ensure compliance to the original specifications</li> <li>4. Check and clean all the condensate pans, trays and drain</li> <li>5. Check, measure and re-calibrate all sensors if necessary</li> <li>6. Check spring vibration isolators for abnormal vibration. Rectify if necessary.</li> <li>7. Coil to be cleaned</li> <li>8. Check for refrigerant leaks with electronic leak detector</li> <li>9. Check electrical terminals and contactors operation and connections for tightness</li> </ol>
All VRF/VRV AC Units	Annual inspection prior to expiry of guarantee period	<ol style="list-style-type: none"> <li>1. Perform all functions for monthly check</li> <li>2. Tighten motor terminals</li> <li>3. Check starter contacts</li> <li>4. Test and calibrate overload settings</li> </ol>
Switch board	Six-monthly and Annual inspection	<ol style="list-style-type: none"> <li>1. Clean and adjust all switchgear, contactors, relays and associated electrical equipment at intervals not exceeding six months</li> <li>2. Check and prove operation of thermal overload and protection devices</li> <li>3. Check and ensure tightness of all equipment fastenings and cable terminations within switch boards</li> <li>4. Vacuum clean all switch board cubicles</li> </ol>
Piping system	Monthly and Annual inspection	<ol style="list-style-type: none"> <li>1. Check all piping system for leaks and repair these where they have occurred</li> <li>2. Check for damage &amp; deterioration of insulation or sheathings. Rectify as necessary.</li> <li>3. Supplying and charging of refrigerant as and when required.</li> </ol>
	AFTER CAMC	The contractor shall have to handover all the VRF / VRV & Indoor units in proper running condition after CAMC is over.

## **5. RECOVERY RATES FOR NON-COMPLIANCES DURING CAMC PERIOD**

The various amounts as mentioned below are the recovery rates to be deducted from the bills payable to the contractor. Activities of maintenance shall be recorded in **maintenance register** and to be verified by E-in-C or his representative.

<b>Sr. No.</b>	<b>Description of non-compliance</b>	<b>Amount to be recovered (Rs.)</b>
1	Not cleaning of condenser with cleaning agent and <b>pressurised water jet</b> unit once in 4 months in a year (All necessary arrangements for conducting de-scaling / cleaning to be done by the contractor, however, specific period of shutdown to be facilitated by the department)	: Rs. 5,000.00 per each missing for all units (to be done in presence of Engineer-in-charge or his representative and to be recorded in maintenance register)
2	Not servicing and cleaning of indoor unit's coils, cleaning of filters at least 3 times per year during the contract period	: Rs.4500.00 per indoor unit per year irrespective of size
3	Not repairing / replacing of any other spare parts within 3 days after occurrence	: After having been notified of the defects / service requirement during warranty as well as CAMC period, Contractor has to complete the required Service / Rectification within 3 days' time limit. If the Contractor fails to complete service / rectification with defined time limit, a penalty of 0.5% of the contract amount shall be charged as penalty for each week of delay from the Contractor. Engineer-in-charge shall have a right to recover all such penalty amount from the bill payable to the contractor or from Performance Security (PBG). Cumulative Penalty cannot exceed more than 10% of the total contract value after which the E-in-C shall have the right to get the service / rectification done from alternate sources at the risk and cost of the Contractor besides forfeiture of PBG.

**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)*

### **ADDITIONAL CONDITION**

1. The Contractor shall not store/dump construction material or debris on metalled road.
2. The contractor shall get prior approval from Engineer-in-Charge for the area where the construction material or debris can be stored beyond the metalled road. This area shall not cause any obstruction to the free flow of traffic/inconvenience to the pedestrians. It should be ensured by the contractor that no accidents occur on account of such permissible storage.
3. The contractor shall ensure that all the trucks or vehicles of any kind which are used for construction purposes/or are carrying construction material fully covered. The contractor shall take every necessary precautions that the vehicles are properly cleaned and dust free to ensure that enroute their destination, the dust, sand or any other particles are not released in air/contaminate air.
4. The contractor shall provide mask to every worker working on the construction site and involved in loading, unloading and carriage of construction material and construction debris to prevent inhalation of dust particles.
5. The Contractor shall provide all medical help, investigation and treatment to the debris relatable to dust emission workers involved in the construction of building and carry of construction material and debris relatable to dust emission.
6. The contractor shall comply all the preventive and protective environmental steps as stated in the MoE guidelines, 2010.
7. The Contractor shall use vehicles having pollution under control certificate. The emissions can be reduced by a large extent by reducing the speed of a vehicle to 20 kmph. Speed bumps shall be used to ensure speed reduction. In cases where speed reduction cannot effectively reduce fugitive dust, the contractor shall divert traffic to nearby paved areas.
8. There shall be no concretization of the trees within one meter of their circumference.
9. The contractor shall always use sufficient warning signs, lighting arrangements, protective tin sheets fencing, notice boards, night watchmen etc. to protect and warn the public to avoid any accidents at site however, any mishap occurs, the contractor shall be fully responsible for providing compensation or to face the legal consequences.
10. The contractor shall arrange and manage the staff, labour and T&P as per the requirement of site conditions. No compensation shall be payable to the contractor or his staff, labour remaining idle due to hindrance in the work or for any business loss, etc. in case of any stoppage of work or delay caused in the start or during progress of work due to any reason whatsoever and there are likely chances of the hindrances in the work. The contractor shall plan the work accordingly. Necessary recovery shall be made for not deploying technical staff as per G.C.C. (General condition of contract).
11. The contractor shall under no circumstances close any road or passage to traffic without the approval of concerned agency and the Engineer-in-charge.
12. **DAMAGE FLOODS, RAINS OR ACCIDENT:** The contractor shall take all precautions against damage to work by floods, rains, accidents or by any other causes which may occur at site. No compensation will be allowed to the contractor for his tools, plants or materials or executed work, which may be lost or get damaged by floods or rains or from other causes till work is inspected and declared completed by the Competent Authority. The contractor, however, shall be liable to make good any plant or materials of any plant or materials of every description belonging to the department which may be lost or damaged by flood or rains or from any other cause, while under the charge of the contractor.
13. Work shall be carried out in such a manner, so as not to interfere with, or effect, retard or

disturb the progress of any other on-going work in the adjoining areas, being executed by any other agency. Proper care should be taken to prevent damage to the overhead/under ground electricity/gas/telephone/water & sewer line/other service lines etc. if any damages occur necessary restoration and implications will be the sole responsibility of contractor. Any claim arises due to above reasons will be borne by contractor.

14. The tendered /quoted item rate in the "Schedule of Quantities" shall be inclusive of all operations including de-silting /execution in or under water and or foul conditions, difficult site conditions /rehandling/deployment of appropriate machine and man power as per site conditions and nothing extra shall be admissible on any account whatsoever, beyond the quoted item rates of various items.
15. The contractor shall execute the work carefully and safely without any damage to the other structure/ equipment or injury to workman. He shall be fully responsible for any accident/casualty, theft etc. during the execution of this work till its completion.
16. Prevention of Nuisance and Pollution Control: - The contractor shall take all necessary precautions measures to prevent any nuisance or Inconvenience the owners, tenants or occupiers of adjacent properties and the public in general and to prevent any damage to such properties from pollutants like smoke, dust noise etc. The contractor shall use such methodology and equipment so as cause minimum environmental pollution of any kind during the execution of work and minimum hindrance road users and to occupants of the adjacent properties or other services running adjacent/near the vicinity of work. The contractor shall make good at his own cost and to the satisfaction of the Engineer-in-charge, any damage to road, paths, cross drainage works or public or private property whatsoever caused during the execution of the work or by vehicle /traffic brought thereon by the contractor, without any reservation, entirely to the satisfaction of Engineer-in-charge.
17. The executing agency shall take all the measures during the execution of work to prevent air/water/garbage/pollution from the working site. If any or the monitoring agencies point out pollution contribution to the environment or issue challan or other penalty same are to be paid /borne by the working agency. The department in no case reimburse such penalty or be party for such a default.
18. The contractor shall take all adequate safety measures to ensure the safety of all workmen. It shall be the responsibility of the contractor to provide all safety equipments such as gum boots, safety helmets, safety belts, slings, gloves, mask oxygen cylinder, life jackets etc. to all workmen to avoid any mishap at site during the execution of the work. The contractor shall be held solely responsible in case of any mishap at site.
19. The contractor shall has to execute the work in the spirit of Prohibition of Employment as Manual Scavengers & their Rehabilitation Act, 2013 and in consonance with Hon'ble Supreme Court Judgment in WP (C) 583/2003 apart from the safety measures as stipulated under the Labour Laws / CPWD Form 8.
20. The contractor shall have to comply to the rule 3(1) of the PEMS Act 2013, as far as "possible, the intervention of manual cleaning / desilting / collecting of floating material other garbage / domestic waste will be avoided. All the maintenance work of drains will have to be completely switched over to mechanical machinery. If, necessary for the workers to go down in the drain in the context of above referred work, only trained workers will be assigned this job after taking all precautionary safety measures. If the floating materials at some places are not possible to remove by mechanical machinery, then should be removed with the help of "punji or Jely" by manual labour standing outside the drain water.
21. The contractor shall submit a certificate before start of work, that "I am well versed with all safety rules and I will own all the responsibility in case of any mishappening during the execution of work".

22. It shall be the responsibility of the contractor not to cause any damage to existing pipeline/water line/sewer line/telephone line/electric wire line or any such feature in the drain, if any. In case any such feature is noticed by the contractor during the execution of the work the same shall be brought to the notice of the Engineer-in-charge in writing along with evidence.
23. Safety Code: It shall be responsibility of the contractor to follow Safety Code as per General Condition of Contract and take all safety measures & precaution to prevent any accident /mishap at site during the execution of work by providing all safety equipments to the workmen. In case of any accident at site, the contractor shall be directly held the responsible for the same.
24. The special conditions to comply the directives of Hon'ble NGT and issued vide O.M. No. DG/SE/CM/CIN/Misc./02 shall also form the part of this contract and shall have to be strictly adhered by the contractor during the execution of work for which no extra payment shall be admissible.
25. SITE CLEARANCE: After physical completion of the work, the site shall be cleared off all the malba, construction material, tools and plants, labour huts, cement store or any other temporary construction raised by the contractor during the execution of work, at his own cost. No extra payment shall be made the contractor for clearance of the site.

It will be the responsibility of the contractor to ensure that no mosquito breeding at site takes place. In case any mosquito breeding is found at site, penalty deemed fit shall be imposed on the contractor.

## **LIST OF APPROVED MAKES FOR CIVIL & ELECTRICAL WORKS**

### **A:- Civil Items**

<b>S. No.</b>	<b>Description</b>	<b>Approved Makes</b>
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
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
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
23	G.I Pipes	TATA / JINDAL(HISSAR)/ BHUSHAN/ APL APPOLLO
24	G.I Fittings	UNIK/ ZOLOTO/ AM
25	Stainless Steel Sink	NEELKANTH/ JAINA/ KINGSTON (COBRA)
26	Commercial Board/ PLY	MERINO/ DURO/ GREEN/ CENTURY/ KIT (SWASTIK)
27	CI Pipes/ Fittings	RIF/ NECO/ BENGAL IRON WORKS/ BC/ SKF
28	CI 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/ MOIGUARD / SAINT GOBAIN/ AASHI
32	Vertical Blinds	VISTA/ MAC/ MARVEL DÉCOR/ 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	PVC 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	Aluminium 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/ LLOYED
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 / TOPAKUSTIC
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	Fiber 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/ WUERTH
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	FOSROC/SIKA/BASF/PIDILITE

	mortar	
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 / PECKOCK
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 SUPPLY	JINDAL / TATA / ALFA PRESS / VIEGA
95	Epoxy flooring	FOSROC / SIKA / BASF
96	Aluminum Factory Made System Window	Schueco Aluminum System Window, ETERNIA (HINDALCO), and NCL Alluro System (NCL Buildteck Ltd.

#### FURNITURE

97	Workstation	GODREJ INTERIO/ HAWORTH / STEEL CASE/ WIPRO/ FEATHERLITE/ HERMAN MLLER
98	Executive Table/ other table	GODREJ INTERIO/ HAWORTH / STEEL CASE/ WIPRO/ FEATHERLITE/ HERMAN MLLER
99	Chair / Audi Chair	GODREJ INTERIO/ HAWORTH / STEEL CASE/ WIPRO/ FEATHERLITE/ HERMAN MLLER
100	Lab Furniture's	KEWANEE / WALDNER / GODREJ/ WIPRO / FEATHERLITE
101	Hostel beds and cots	ZUARI / EVOV / GODREJ / WIPRO / FEATHERLITE
102	Hospital beds	HUNTLEY / STRIKER /GODREJ/WIPRO /FEATHERLITE

#### ITEMS FOR CLEAN ROOM / BSL / SRTERLIZATION / SPECIAL LAB FURNITURE

103	Clean room Wall, Ceiling panel, coving	IClean/ Nicomac/ Clestra/ Channel Systems
104	Clean room Garment cabinet, shoe rack	IClean/ Kleainzaids/ Channel Systems
105	Cleanroom Doors, Return air riser	IClean/ Nicomac/ Clestra/ Channel Systems
106	Pass box, Air Shower	IClean/ Kleainzaids / Channel Systems
107	Utility Gas piping valves and Fittings (for clean room)	Shavo Technologies / Excel Gas/ GDS STARLING / Broen / Ratnamani
108	Utility Gas Pipe SS 304 Seamless (for clean room)	Excel Gas / Scoda / Venus / Dockweller
109	SS 316 L Electo polished tubing	Dockweller / Valex / Sandvik / Ratnamani
110	Chilled water pump	Grundfos/ KBL / Beacon / Wilo
111	Insulation for pipe and valves	Armaflex/ K Flex/ A flex/ Supreme
112	Auto Air vent, Y strainer	Anergy / Zoloto / Lehry
113	3 way modulating valve, Flow switch	Siemens / Honeywell
114	Humidistat, Thermostat, DP Sensor	Siemens / Honeywell
115	Magnehalic gauge	Dwyer / Sensocon / Micro precision
116	Temperature Pressure gauge	H Guru / Wika / Febig
117	Pre Insulated Ducting	RR Engineers /Asawa / Paul
118	Thermal Insulation for GI ducting	Supreme/K. Flex/A Flex/Armaflex
119	HEPA Filters, HEPA terminal, BIBO unit	AAF/Camfil/ Thermadyne / Mechmaark
120	Building Management System	Honeybell / Siemens / Johnson
121	Biometric Access System	Siemens / Vantage / ExcelLex
122	Door Interlock	Honeywell/Vantage / Drishti / Ozone
123	Thyristor Heater	KEPL/Intercool/ Rapid Cool
124	Compressed Dry Air (Oil free type)	Atlas Copco / Chicago Pneumatics Ingersol Rand / Elgi
125	Antivibration mounting	Resistoflex/ Gerb / polybond
126	Variable Frequency Drive	ABB / Danfos / Fuji
127	Lab Casework	Kewaunee/GD-Waldner/Godrej/Citizen/ Lab india / lab guard
128	Fume Hoods	Kewaunee/GD-Waldner/Godrej/Citizen/ Lab india / lab

		guard
129	Utility Valves	Broen/Water Saver/FAR

**B:- 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 Aluminum/ 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 & Pilar 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
29	Access Control System	Bosch/ Honeywell/ HID/ Nextwatch
30	Intruder Alarm System	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:-

<b>Envelope – 1</b>			
(Following documents to be provided as single PDF file)			
<b>Sl. No.</b>	<b>Documents</b>	<b>Content</b>	<b>File Types</b>
1.		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 filed return of GST.	.PDF
5.		<b>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).</b>	.PDF
6.		Acceptance to execute INTEGRITY PACT.	.PDF
7.		Undertaking as per on firm's letter head. <b>"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"</b>	.PDF
8.		ESI and EPF Registration.	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		Any other documents specified in NIT	PDF
<b>Envelope – 2</b>			
<b>Sl. No.</b>	<b>TYPES</b>	<b>Content</b>	
1.	Financial Bid	Price bid should be submitted in BOQ format.	.Xls

All the above documents shall be as per Tender Notice.

**PART 'C'**  
**SCHEDULE OF QUANTITY**

**Name of work: - Retrofitting, Renovation & modification work in the Neelkanth Community Centre in East campus at IIT Delhi.**

**Sub Head: - Civil, Electrical & HVAC work.**

<b>SLNo</b>	<b>Description</b>	<b>Qty</b>	<b>Unit</b>	<b>Rate</b>	<b>Amount</b>
<b>1</b>	<b>CIVIL WORK (SH-I)</b>				
2	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 lif upto 1.5 m, as directed by Engineer-in- Charge:				
3	All kinds of soil	532.00	sqm		
4	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
5	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)	31.00	cum		
6	Providing and laying in position ready mixed or site batched design mix cement concrete for plain cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana/ Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering and finishing as per direction of the engineer-in-charge; for the following grades of concrete. Note: Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the minimum specified cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.				
7	All works upto plinth level :				
8	Concrete of M10 grade with minimum cement content of 220 kg /cum	66.00	cum		

9	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15 degree 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).	3.00	cum		
10	Centering and shuttering including strutting, propping etc. and removal of form for				
11	Foundations, footings, bases of columns, etc. for mass concrete	80.00	sqm		
12	Suspended floors, roofs, landings, balconies and access platform	522.00	sqm		
13	Lintels, beams, plinth beams, girders, bressumers and cantilevers	346.00	sqm		
14	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.				
15	Thermo-Mechanically Treated bars of grade Fe-500D or more.	16700.00	kg		
16	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge, for the following grades of concrete.: Note: Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.				
17	All works above plinth level upto floor V level				
18	Concrete of M25 grade with minimum cement content of 330 kg /cum	111.00	cum		

19	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:				
20	Cement mortar 1:4(1 cement :4 coarse sand)	25.00	cum		
21	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 :				
22	Cement mortar 1:4(1 cement :4 coarse sand)	148.00	cum		
23	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.				
24	Cement mortar 1:3(1 cement :3 coarse sand)	48.00	sqm		
25	Extra for providing and placing in position 2 Nos 6 mm dia. M.S. bars at every third course of half brick masonry.	48.00	sqm		
26	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.				
27	Granite stone slab of colour black, Cherry/Ruby red				
28	Area of slab over 0.50 sqm	25.00	sqm		
29	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.	28.00	metre		
30	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.	8.00	each		

31	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3(1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	701.00	sqm		
32	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete :				
33	250x10 mm	46.00	each		
34	200x10 mm	46.00	each		
35	Providing and fixing bright finished brass hanging type floor door stopper with necessary screws, etc. complete.	32.00	each		
36	Providing and fixing chromium plated brass handles with necessary screws etc. complete:				
37	125 mm	40.00	each		
38	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 :				
39	150x10 mm	40.00	each		
40	100x10 mm	40.00	each		
41	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.				
42	1.0 mm thick	157.00	sqm		
43	Providing and fixing stainless steel fancy handle of approved make fixed with SS screws etc. complete as per direction of Engineer-in-charge.				
44	200 mm	14.00	each		
45	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 of Engineer-in-charge.	42.00	each		

46	Providing and fixing stainless steel soft closing heavy type telescopic drawer channels of approved make 500 mm long with screws etc. complete as per direction of Engineer- in-charge,	14.00	one set		
47	Providing and fixing 2 mm thick 16 to 19 mm 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 direction of Engineer- in-charge.	126.00	metre		
48	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.				
49	Hot finished seamless type tubes	4266.00	kg		
50	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.				
51	In stringers, treads, landings etc. of stair cases, including use of chequered plate wherever required, all complete	4983.00	kg		
52	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		
53	Providing & fixing fly proof wire gauze to windows, clerestory windows & doors with M.S. Flat 15x3 mm and nuts & bolts complete.				
54	Stainless steel (grade 304) wire gauze of 0.5 mm dia wire and 1.4 mm aperture on both sides	65.00	sqm		

55	Providing and laying rectified Glazed Ceramic floor tiles of size 300x300 mm or more (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 Coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including pointing the joints with white cement and matching pigments etc., complete.	44.00	sqm		
56	Providing and laying Vitrified tiles in floor with different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS: 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).				
57	Size of Tile 600x600 mm	327.00	sqm		
58	Providing and laying Polished Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing , curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge.				
59	Polished Granite stone slab of colour Black, Cherry/Ruby Red or equivalent	757.00	sqm		

60	<p>Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-Charge) of total coated thickness 0.50 mm (base metal of minimum 0.45 mm 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.</p>	89.00	sqm		
61	<p>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 difusers, 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.</p>				

62	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 grns/sqrn (both sides inclusive) and 20% perforation area with 1.8 mm dia holes and having NRC (Noise Reduction Coeficient ) 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.	1063.00	sqm		
63	12 mm cement plaster of mix:				
64	1:4(1 cement: 4 coarse sand)	733.00	sqm		
65	15 mm cement plaster on rough side of single or half brick wall of mix:				
66	1:4(1 cement: 4 coarse sand)	337.00	sqm		
67	Cement plaster 1:3(1 cement: 3 coarse sand) finished with a floating coat of neat cement.				
68	12 mm cement plaster	8.00	sqm		
69	Pointing on brick work or brick flooring with cement mortar 1:3 (1 cement : 3 fine sand):				
70	Flush / Ruled/ Struck or weathered pointing	392.00	sqm		
71	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade:				
72	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)	3091.00	sqm		
73	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.	2224.00	sqm		
74	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound ) content less than 50 grams/litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.				
75	Two coats	2027.00	sqm		
76	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound ) content.				
77	With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre	2027.00	sqm		

78	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.				
79	With cement mortar 1:4 (1cement: 4 coarse sand)	102.00	sqm		
80	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 chalies, 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.	1620.00	sqm		
81	Dismantling W.C. Pan of all sizes including disposal of dismantled materials including malba all complete as per directions of Engineer-in-Charge.	22.00	each		
82	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.				
83	Nominal concrete 1:3:6 or richer mix (including equivalent design mix)	21.00	cum		
84	Nominal concrete 1:4:8 or leaner mix (including equivalent design mix)	49.00	cum		
85	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.	73.00	cum		

86	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.				
87	In cement mortar	85.00	cum		
88	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :				
89	Of area 3 sq. metres and below	97.00	each		
90	Of area beyond 3 sq. metres	14.00	each		
91	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.				
92	For thickness of tiles 10 mm to 25 mm	349.00	sqm		
93	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	208.00	sqm		
94	Demolishing mud phaska in terracing and disposal of material within 50 metres lead.	27.00	cum		
95	Dismantling wooden boardings in lining of walls and partitions, excluding supporting members but including stacking within 50 metres lead :				
96	Up to 10 mm thick	88.00	sqm		
97	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 :				
98	15 mm to 40 mm nominal bore	117.00	metre		
99	Dismantling C.I. pipes including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means breaking lead caulked joints, melting of lead and making into blocks including stacking of pipes & lead at site within 50 metre lead as per direction of Engineer-in-charge:				
100	Up to 150 mm diameter	65.00	metre		
101	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.	10.00	each		

102	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	490.00	cum		
103	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5 mm), including making drainage opening wherever required complete etc. as per direction of Engineer- in-charge (length of finished kerb edging shall be measured to calculate volume for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	6.00	cum		
104	Providing and laying factory made chamfered edge Cement Concrete paver blocks in footpath, parks, lawns, drive ways or light traffic parking etc, of required strength, thickness & size/ shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50 mm thick compacted bed of sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand. complete all as per direction of Engineer-in-Charge.				
105	60 mm thick cement concrete paver block of M-35 grade with approved colour, design & pattern.	366.00	sqm		
106	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 white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required:				
107	White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests	4.00	each		
108	Providing and fixing CP Brass 32 mm size Bottle Trap of approved quality & make and as per the direction of Engineer-in-charge.	11.00	each		

109	Providing and fixing CP Brass Single lever telephonic wall mixer of quality & make as approved by Engineer in charge. (a) 15 mm nominal dia	3.00	each		
110	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.				
111	Flexible pipe				
112	32 mm dia	12.00	each		
113	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	7.00	each		
114	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing :				
115	Rectangular shape 1500x450 mm	6.00	each		
116	Providing and fixing 600x120x5 mm glass shelf with edges round off, supported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc., complete.	4.00	each		
117	Providing and fixing toilet paper holder :				
118	C.P. brass	9.00	each		
119	Providing and fixing soil, waste and vent pipes :				
120	100 mm dia				
121	Centrifugally cast (spun) iron socket & spigot (S&S) pipe as per IS: 3989	203.00	metre		
122	75 mm diameter :				
123	Centrifugally cast (spun) iron socketed pipe as per IS: 3989	44.00	metre		
124	Providing and fixing M.S. holder-bat clamps of approved design to Sand Cast iron/cast iron (spun) pipe embedded in and including cement concrete blocks 10x10x10 cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including cost of cutting holes and making good the walls etc. :				
125	For 100 mm dia pipe	26.00	each		
126	For 75 mm dia pipe	8.00	each		
127	Providing and fixing plain bend of required degree.				
128	100 mm dia				
129	Sand cast iron S&S as per IS : 3989	22.00	each		

130	75 mm dia				
131	Sand cast iron S&S as per IS - 3989	8.00	each		
132	Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.				
133	100x100x100 mm				
134	Sand cast iron S&S as per IS - 3989	6.00	each		
135	75x75x75 mm				
136	Sand cast iron S&S as per IS - 3989	2.00	each		
137	Providing and fixing single equal plain junction of required degree :				
138	100x100x100 mm				
139	Sand cast iron S&S as per IS - 3989	8.00	each		
140	Providing lead caulked joints to sand cast iron/centrifugally cast (spun) iron pipes and fittings of diameter :				
141	100 mm	63.00	each		
142	75 mm	45.00	each		
143	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors :				
144	100 mm inlet and 75 mm outlet				
145	Sand cast iron S&S as per IS - 3989	9.00	each		
146	Providing and fixing white vitreous china battery based infrared sensor operated urinal of approx. size 610 x 390 x 370 mm having pre & post flushing with water (250 ml & 500 ml consumption), having water inlet from back side, including fixing to wall with suitable brackets all as per manufacturers specification and direction of Engineer-in-charge.	6.00	each		
147	Providing and fixing floor mounted, white vitreous china single piece, double traps siphonic water closet of approved brand/make, shape, size and pattern including integrated white vitreous china cistern of capacity 10 litre with dual flushing system, including all fittings and fixtures with seat cover, cistern fittings, nuts, bolts and gasket etc including making connection with the existing P/S trap, complete in all respect as per directions of Engineer-in-Charge.	9.00	each		
148	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, including cutting and making good the walls etc. Internal work - Exposed on wall				
149	20 mm dia nominal bore	113.00	metre		

150	Providing and fixing G.I. Pipes complete with G.I. fittings and clamps, including making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making good the wall :				
151	15 mm dia nominal bore	30.00	metre		
152	20 mm dia nominal bore	202.00	metre		
153	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. External work				
154	25 mm dia nominal bore	95.00	metre		
155	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :				
156	20 mm nominal bore	30.00	each		
157	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :				
158	20 mm nominal bore	30.00	each		
159	Providing and fixing brass ferrule with C.I. mouth cover including boring and tapping the main :				
160	20 mm nominal bore	8.00	each		
161	Painting G.I. pipes and fittings with synthetic enamel white paint with two coats over a ready mixed priming coat, both of approved quality for new work :				
162	20 mm diameter pipe	113.00	metre		
163	25 mm diameter pipe	95.00	metre		
164	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) :				
165	15 mm nominal bore	10.00	each		
166	20 mm nominal bore	36.00	each		
167	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.	6000.00	per litre		
168	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 :				
169	15 mm nominal bore	9.00	each		
170	Providing and fixing C.P. brass long nose bib cock of approved quality conforming to IS standards and weighing not less than 810 gms.				
171	15 mm nominal bore	3.00	each		

172	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931				
173	15 mm nominal bore	42.00	each		
174	Providing and fixing C.P. Brass extension nipple (size 15 mm x 50 mm) of approved make and quality as per direction of Engineer-in-charge.	12.00	each		
175	Cutting holes up to 30x30 cm in walls including making good the same:				
176	With common burnt clay F.P.S. (non modular) bricks	10.00	each		
177	Cutting holes up to 15x15 cm in R.C.C. floors and roofs for passing drain pipe etc. and repairing the hole after insertion of drain pipe etc. with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including finishing complete so as to make it leak proof.	10.00	each		
178	Providing, laying and jointing glazed stoneware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete :				
179	150 mm diameter	92.00	metre		
180	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design :				
181	150 mm diameter S.W. pipe	92.00	metre		
182	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x 300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design:				
183	150 x 100 mm size P type				
184	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	7.00	each		

185	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 :				
186	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) :				
187	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	4.00	each		
188	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 :				
189	For pipes 100 to 250 mm diameter	8.00	each		
190	Constructing brick masonry road gully chamber 50x45x60 cm with bricks in cement mortar 1:4 ( 1 cement : 4 coarse sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame complete as per standard design :				
191	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	12.00	each		

192	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 / panelling, 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) :			
193	For fixed portion			
194	Powder coated aluminium (minimum thickness of powder coating 50 micron)	2397.00	kg	
195	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)			
196	Powder coated aluminium (minimum thickness of powder coating 50 micron)	865.00	kg	
197	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.			
198	With stainless steel cover plate minimum 1.25 mm thickness	6.00	each	
199	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.			
200	Upto 5 mm depth and 5 mm width	204.00	metre	

201	Providing and fixing stainless steel (SS 304 grade) adjustable friction windows stays of approved quality with necessary stainless steel screws etc. to the side hung windows as per direction of Engineer-in-charge complete.				
202	355 X 19 mm	196.00	each		
203	Providing and fixing aluminium round shape handle of outer dia 100 mm with SS screws etc. complete as per direction of Engineer-in-charge				
204	Powder coated minimum thickness 50 micron aluminium	20.00	each		
205	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).	100.00	kg		
206	Providing and fixing 12 mm thick frameless toughened glass door shutter of approved brand and manufacture, including providing and fixing top & bottom pivot & double acting hydraulic floor spring type fixing arrangement and making necessary holes etc. for fixing required door fittings, all complete as per direction of Engineer-in-charge (Door handle, lock and stopper etc. to be paid separately).	11.00	sqm		
207	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.	18.00	sqm		

208	<p>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":</p>				
209	With average thickness of 120 mm and minimum thickness at khurra as 65 mm.	346.00	sqm		
210	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				

211	25 mm average thickness	539.00	sqm		
212	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.				
213	Bars upto 12 mm diameter	1573.00	metre		
214	Bars above 12 mm diameter	728.00	metre		
215	Providing, erecting, maintaining and removing temporary protective screens made out of specified fabric with all necessary fixing arrangement to ensure that it remains in position for the work duration as required by the Engineer-in-charge.				
216	Wooven PVC cloth	1638.00	sqm		
217	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.	367.00	sqm		
218	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid board one side white color and other side of board laminted with PVC foil of minimum 14 micron thickness of approved design pasted with hot melt adhesive for cup boards, work stations and bathroom/ kitchen cabinet etc. of required sizes comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/mm <sup>2</sup> , modulus of elasticity 850 N/mm <sup>2</sup> and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixing with stainless steel piano hinges/soft close clip on concealed hinges of required size with necessary full body threaded star headed counter sunk S.S screws, all as per direction of Engineer-In- Charge. (Note: stainless steel piano hinges/soft close clip on concealed hinges and necessary S.S screws shall be paid separately)				
219	18 mm thick	77.00	sqm		

220	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid plain white color board for backing of cup boards and bathroom/kitchen cabinets etc. of required size comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/mm <sup>2</sup> , modulus of elasticity 850 N/ mm <sup>2</sup> and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixing with stainless steel screws etc. all as per direction of Engineer-In- Charge. (Note: stainless steel screws shall be paid separately)				
221	6 mm thick	28.00	sqm		
222	Providing and Fixing of C.P. Health Faucet with 1 Mtr long tube & Hook complete as per the direction of Enginerr in-charge. (Make - Jaquar/Marc/Kohler) - .	11.00	Each		
223	Providing and Fixing of C.P. brass shower head with arm complete as per the direction of Engineer in-charge. (Make: Jaquar/Marc/Kohler) 15mm nominal bore	4.00	Each		
224	Providing and Fixing of C.P. Central Hole Basin Mixer of approved quality complete as per the direction of Engineer in-charge. (Make - Jaquar/Marc/Kohler) - 15mm nominal bore	4.00	Each		
225	Providing and Fixing of C.P. towel rod with brackets fixed to wooden cleats with C.P. brass screws complete.	4.00	Each		
226	Providing and Fixing of C.P. towel ring with brackets fixed to wooden cleats with C.P. brass screws complete.	6.00	Each		
227	Providing and Fixing of C.P. Toilet Roll Holder with brackets fixed to wooden cleats with C.P. brass screws complete.	11.00	Each		
228	Providing and Fixing of glass corners of size upto 300mmx300mm with necessary cleats and screws etc. complete as per direction of engineer-in-charge.	4.00	Each		
229	Providing and fixing GI tank Nipple of approved make in PVC tanks as per directions of Engineer-In-Charge. 15 mm nominal bore	24.00	Each		

230	Providing and Fixing stainless steel jali (Grating) with or without hole for waste pipe for floar / Nahni trap. (Make - Chili / Hefle)	23.00	Each		
231	Providing and fixing cup board shutters with 18-19mm thick commercial block board as per IS : 1659 of approved make with necessary SS piano hinges of appropiate size etc. complete as per direction of Engineer In Charge.	29.00	Sqm		
232	Providing and fixing concealed handle for Aluminium window shutter of 128 mm conforming to IS: 733 and IS: 1285, fixing with necessary screw, beading etc as per direction of Engineer in charge.	140.00	Each.		
233	Driling and fixing NRV nozzles in RC members, including (fixing material : Renderoc Plug of Fosroc / Sikadur-31 of Sika/ MasterBrace 2200 of BASF or equivalent of Pidilite & Krishna Conchem).Drilling Holes: Drilling 12 mm dia, 50 to 75 mm deep holes or upto required depth in structural members of the intervals of 350 mm in staggered manner or as directed by the Engineer-in-charge in RC structural elements. Cleaning of holes: Clean the holes by air blower prior to fixing nozzles.				
234	Cuttting of Nozzles: Cut the nozzles by chisel after completion of grouting without damaging structural elements:	2740.00	Each		
235	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 $\geq$ 45 Mpa (28 Days) according to ASTM C109. ( Product :- Renderock S2 of Fosroc/ SikaTop® 122 -F of Sika / MasterEmaco S 348 of BASF or equivalent of Pidilite)				
236	For 20 mm thickness over slab, beams, columns and stair case slabs	539.00	Sqm		

237	<p>Providing and laying ready to use non shrink. Cementious free flow micro concrete of Compressive strength <math>\geq 50</math> MPa (28 days) according to ASTM C 109 of approved make and manufacture complete as per direction of Engineer-in-charge for replacing the carbonated part of concrete and repairing the damaged surface of concrete after fix the form work across the profile of damaged structural element. Pour the free flow non shrink. Cementious free flow micro concrete mix in the form work. Payment shall be made on the basis of consumed dry material of micro concrete mix. (Product :- Renderock RG of Fosroc/ SikaRep® Microcrete - 4 of Sika / MasterEmaco S-346 of BASF or equivalent of Pidilite)</p>				
238	b) With addition of 6 mm down aggregate in 3:1 (3 Micro concrete: 1 aggregate 6 mm & down)	42.00	Ton		
239	<p>Injecting/Grouting shrinkage free low viscosity epoxy resin grout in structural cracks, wherever required by pressure and using mechanized injector gun with accessories till nozzles refused to accept the grout. Epoxy grout material should be conforming to ASTM-881-87 type I, grade I, class B &amp; C and compressive strength of the material shall be <math>\geq 55</math> Mpa, (7 Days), Tensile strength <math>\geq 20</math> Mpa (14 Days) &amp; Bond strength 10 Mpa (14 Days). Mixing of material : Mixing material components in required quantities as per manufacture's instruction. Grouting : Fill the grouting gun with low viscosity epoxy resin. Maintain desired pressure in the gun by air compressor: maintain the required pressure at exit. Grout the material through prefixed nozzles in structural elements till its refusal, seal the nozzles with epoxy putty after the refusal, monitor leakages through other nozzles while grouting and seal them as per the requirement, repeat the process for all the nozzles. complete the operation within pot life of the material. Cleaning the gun and accessories: Clean the gun and accessories (valves, pipes and other fixture) with thinner after the operation to avoid jamming of the gun. (Low Viscous epoxy grout : conbextra EP10 of Fosroc/ Sikadur®-55 LP of Sika/ MasterInject 1315 of BASF or equivalent of Pidilite &amp; Krishna Conchem).</p>	1096.00	Kg.		

240	Mandana 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) :				
241	25 mm thick	205.00	Sqm.		
242	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with PVC / neoprene gasket etc. complete as per the architectural drawings of engineer-in-charge. (Cost of aluminium snap beading shall be paid in basic item) (a) With 5. mm thickness reflective glass (antilio from Saint Gobain or equivalent of ASI)				
243	With 5. mm thickness reflective glass (antilio from Saint Gobain or equivalent of ASI)	108.00	Sqm		
244	Providing and fixing factory made hot pressed both side laminated flush door ready made shutter with one mm thick decorative laminate on both side confirming to IS:2202 (Part) non decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veeneering with vertical grain or cross bands and face veneer on both face of shutters. 35mm thick including ISI marked stainless steel butt hinges with necessary screws.  (a) 35mm thick including ISI marked stainless steel butt hinges with necessary screws.	75.00	Sqm		
245	Providing & Fixing of stainless steel cylindrical lock of superior quality (165mm to 45mm dia) with a pair of handles (Dorset - Model No. CETO/OZONE/DORMA/Godrej) all complete as per direction of engineer-in-charge.	12.00	Each		
246	Dismantling and removing rectangular/square shape G.I. Sheet duct of any size from wall and stacking the same as per the direction of the Engineer-in-charge.	25.00	Mtr		
247	Providing and Fixing of C.P. Copper connection with brass union complete as per the direction of Engineer in-charge -(Make - Jaquar/Marc/Kohler)	33.00	Each		
248	Providing and Fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931.15mm nominal bore. (Make - Jaquar/Marc/Kohler)	6.00	Each		

249	Providing and Fixing C.P. Pillar Cock of approved quality complete as per the direction of Engineer in-charge. (Make - Jaquar/Marc/Kohler) -	10.00	Each		
250	Providing and fixing wash basin with C.I./M.S. brackets, 32mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required.  (a) Oval shaped counter top wash basin	13.00	Each		
251	Providing and Fixing 10 mm thick non-asbestos multipurpose cement board reinforced with cellulose fiber , manufactured though autoclaving process having density grater than 1200kg/cubic meter (high pressure steam cured) as per IS:14862 and type B category 3tasted as per BS-476 part 2,5,6 & 7 over the existing MS frame work(MS frame work to be paid in basic items) with 25mm counter sunk ribbed hard screws @ 200mm centre to centre . The joints of the boards shall be finished with specially formulated jointing compound and jointing tape to be provided seamless finish , etc. all complete as per drawing & direction of engineer in charge.	292.00	Sqm		
252	Providing and fixing 50mm thick sandwich roof panel (factory made) as per specification as follow. a) Outer sheet; 0.50mm (TCT) precoated galvanized trapezoidal steel sheet having minimum 30mm crest depth, polyester top coat & alkyd backer. Zinc coating shall be 120 gsm as per IS-277. Top coat polyester 15-18 microns over 5-7 micron epoxy primer. b) Insulation : High density puff insulation. c) Inner Sheet: Colour coated galvanized, slightly ribbed. Thickness 0.50mm (TCT) minimum 15-18 micron top coat polyester coating, Zinc coating 120g/sqm as per IS-277 Grade of steel : Minimum 240Mpa (both sheets). Sheet should have protective guard film of 25 micron minimum to avoid scratches during transportations and should be supplied in single length upto 12 meter or as desired by Engineer-In-Charge. The sheet shall be fixed using self drilling / self tapping screws with EPDM seal, completed upto any pitch in horizontal / vertical or curved surfaces excluding the cost purlins, rafters and trusses and including cutting to size and shape wherever required. Work to be executed as per the instructions of Engineer-In-Charge.	156.00	Sqm		

253	<p>Supplying and installation of Toilet cubicles of following specification and dimension as per direction of Engineer in charge. Thickness of Compact Laminate should be 18mm and Color of HPL Boards should be Single Standard Compact Color of make (Century cubicals, Merino, &amp; Greenlam) 1. size 900mm (W) &amp; 1500mm (D) x 1840mm (H) Height including bottom gap of 100mm. 2. Door Size : 1730mm (H) x 600mm (W) 3. Divider Size : 1730mm (H) 4. Accessories: Stainless Steel - 304 Grade accessories a) SS "U" Channel b) SS "F" Channel (Only Corner Unit) c) SS Door Stopper Channel d) SS Coat Hook e) SS Privacy Thumb turn c/w Occupancy Indicator f) SS Door Knob g) SS Spring Loaded Butt Hinges with Cover h) SS Shoe Box Leg 18mm -SS 316 Grade i) Rubber Lining for Door Stopper j) S.S.Screws 304 G &amp; P.V.C Wall Plugs Warpage Criteria should not be more than 3.0 mm/1000mm</p>	7.00	Each		
254	<p>Structural designing work for Neel kanth Hall detailed structural design by any structural designer and duly vetted by NIT/IIT will be submitted by the agency . The Successful bidder essentially submit the detailed structural design within a week from the date of issue the award letter which will be than vetted by NIT/IIT &amp; agency will also be submit the stability report duly examined &amp; issued by NIT/IIT.</p>	1.00	L.S		
255	<p>Providing and laying anticorrosive Treatment of Reinforcement by any approved make rebar corrosion protection system to existing reinforcement (The application shall be by brush). Process is to be complete as per the recommendation of manufacturer and direction of Engineer-in-charge. for payment exposed length of reinforcement will be measured. (Product - NITOZINC PRIMER of FOSROC / Friazinc® R of Sika/ MasterEmaco P 130 of BASF or equivalent of pidilite &amp; Krishna Conchem).</p>				
256	Bars Upto 12 mm diameter	1573.00	Mtr		
257	Bars above 12 mm diameter and upto 20 mm	728.00	Mtr		
258	<p>Rebaring/ fixing of shear connectors of new reinforcement bars for structural connections in RCC columns including power drilling holes of appropriate diameter in reinforced or plain cement concrete upto standard depth or as per specification of manufacturer, fixing the reinforcement in position using epoxy of approved make at all height level. ( Rate shall include cost of labour, T &amp; P for power drilling in concrete, epoxy cartridges, plastic nozzle etc. complete including the drilling holes and loose dust by blowing air. Reinforcement for rebar shall be paid extra.) ( Product :- Lockfix of Fosroc/ AnchorFix ® -3+ of Sika/ RE-500 of Hilti/ MasterFlow 935 AN of BASF/ Fischer )</p>				

259	a) Rebar 10 mm Dia x 14 mm holes	250.00	Nos		
260	b) Rebar 16 mm Dia x 20 mm holes dia x 160 mm depth b) Rebar 16 mm Dia x 20 mm holes dia x 160 mm depth	60.00	Nos		
261	c) Rebar 20 mm Dia x 20 mm holes dia x 160 mm depth	60.00	Nos		
262	Providing and fixing Stainless door lock of Ozone make (Model-OPL-4A/4B-K2N STD SSS) or Equivalent for glass door to be fixed at cenetr of door i/c necessary cutting and making good the floor etc complete.	3.00	Sqm		
263	Providing and fixing H type handle of Ozone make (MODEL-OGH-55S) or Equivalent 32 mm dia 457 mm long with necessary screws etc complete .	3.00	Each Pair		
264	Providing and fixing wall to Glass connector of Ozone make (OGC-4A) or Equivalent Complete as per Direction of Engineer-in-charge	60.00	Each Pair		
265	Providing and fixing Over Pannel Fitting of Ozone make (MODEL-OPF-1) or Equivalent Complete as per Direction of Engineer-in-charge.	6.00	Each Pair		
266	Providing and fixing Over Pannel Fitting of Ozone make (MODEL-OPF-2) or Equivalent Complete as per Direction of Engineer-in-charge.	6.00	Each Pair		
267	Providing and fixing 12 mm thick frameless toughened glass in partition of approved brand and manufacture, including making necessary holes etc for fixing the fittings but excluding the cost of fittings all complete as per direction of Engineer-in-charge.	17.00	Sqm		
268	Providing , mixing & applying two comonment Epoxy resin concrete Bonding coat on prepared RCC surface as per manufacture specification including prepartion of surface by chipping and throughly cleaning of surface complete wherever required and as per direction of Engineer-in-charge.Epoxy material should be conforming to A S T M-881-887 Type 1,Grade 1, class B or C (Proudct: MasterBrace1414 of BASF/ Sikadur 32LP OF SIKA/Nitobond EP Of fosroc or equivalent of pidilite).	539.00	Sqm.		
269	Makeing 'V' groove of 5mm wide and 10mm deep over crack line by electrically operated angle grinder with diamond concrete saw blade and cleaning it by air blower as directed by Engineer-in-charge.	235.00	Mtr.		

270	<p>Sealing of exposed 'V' groove of 5mm deep and 5mm wide with solvent-free, moisture tolerant, thixotropic, two part structural adhesive and epoxy repair mortar cum surface levelling mortar after saturating and filling the groove with Sika-20 crackseal, the compressive strength of the epoxy repair mortar shall be <math>\geq 60</math> N/mm<sup>2</sup> ( 14 Days) and Bond strength <math>\geq 10</math> N/mm<sup>2</sup> ( 7 Days). ( Product -NITOMORTAR S OF FOSROC/ Sikadur®- 31 of Sika/ MasterBrace 2200 BASF or equivalent of Pidilite) .</p>	235.00	Mtr.			
271	<p>Providing and special machine applied in hot conditions a two-component based hybrid polyurethane waterproofing system to the terrace(mother slab only) up to floor five level. The work of waterproofing is to be executed by the manufacturer or his approved applicator. The surface on which the waterproofing system is applied shall be sound and should have a minimum compressive strength not less than 20MPa.</p> <p>i) Cleaning of mother/base slabs:- Mother Slab shall be cleaned by using a wire brush and a Vacuum cleaner. The surface should be made free from any loose material, dust &amp; dirt or any inert material.</p> <p>ii) Repairing the base surface:- Base surface shall be repaired by using any appropriate material as per recommendation of the manufacturer or as approved by the engineer-in-charge. The repair mortar should be compatible with the waterproofing material, and shall have proper bonding with the mother slab. Concrete and other cementitious substrates must have a minimum pull-off strength of 1.5 N/mm<sup>2</sup>. Concrete (repaired item shall be paid extra).</p> <p>iii) Applying of Priming Coat:- After cleaning and repairing the base slab, a priming coat of two-component, solvent-free resin/epoxy (Sikafloor P2525 of Sika) / Nitoprime 31 of Fosroc / or equivalent of BASF mixed in the proportion recommended by the manufacturer by using spray machine or roller. The primer shall be applied on the dry cement concrete having a moisture content <math>&lt;8\%</math> surface. The consumption of the primer shall be strictly as per the current data sheet of the manufacturer, which may be more depending upon surface condition. (make – Sika / Fosroc / BASF or equivalent)</p> <p>iv) Providing and sprinkling Quartz Sand: - Providing and sprinkling graded quartz sand / broadcast anti-slip grain of 200- 300 microns (Sika / Fosroc / BASF or equivalent) immediately and evenly over the entire wet, freshly primed surface, by hand or mechanically, as recommended by the manufacturer. The quartz sand shall be applied at a rate of 0.75 to 0.85 kg/sqm, or as per the</p>	324.00	Sqm.			

	manufacturer's latest data sheet and directed by the Engineer-in-Charge. (make – Sika / Fosroc / BASF or equivalent) v) Applying the two-component hybrid polyurea coat: - Providing and applying two components based solvent-free, fast-setting, liquid hot-applied elastomeric seamless hybrid polyurea-polyurethane coating system (make – Sikalastic M 800 of sika /Fosroc Polyurea WH 200 of Fosroc or equivalent) using plural-component airless spray equipment (It is highly reactive and can only be applied by special two-component spray equipment) over the primed and sanded surface. The coating shall have the following minimum performance characteristics: elongation >400%, Shore A hardness >75 (after 28 days), tensile strength of 10 MPa (as per DIN/ASTM), Crack bridging ability for Static Crack Bridge: A5 (>2.5mm) (EN1062-7) & Dynamic crack bridge: 3.2mm 10 cycles at -26°C (ASTM C 1305), tear strength of minimum 30 N/mm (as per DIN 53515) or minimum 45 N/mm (as per ASTM D624), and a maximum gel/reaction time of 20 seconds. The coating shall be applied in two coats to achieve a minimum total dry film thickness of 2.0 mm. (make – Sika / Fosroc / BASF or equivalent)			
272	Applying Two component, UV and weather resistant top sealer coat on Hybrid PU Coating. Liquid material should be stirred well and applied evenly by roller, brush or by spray. The top coats on exposed membrane area shall be solvent-free polyurethane-based tough-elastic coloured seal coat (Sikafloor TC 368 of Sika / Brushbond Roofguard of Fosroc or equivalent. The rates are inclusive of material, labour, tools and tackles. (Make - Sikafloor TC 368 of Sika / Brushbond Roofguard of Fosroc or equivalent.)	324.00	Sqm.	
273	<b>Credit of Dismantled Item –</b> GI Pipe 15 mm to 40 mm dia	60.00	Mtr	
274	<b>Credit of Dismantled Item –</b> CI pipe upto 100 mm dia including fittings	20.00	Mtr	
275	<b>Credit of Dismantled Item –</b> PVC cistern of any size	8.00	Each	
276	<b>Credit of Dismantled Item –</b> old PVC tanks of various capacities	800.00	Ltr	
277	<b>Credit of Dismantled Item –</b> Old flush door shutter of various thickness and sizes with fitting etc.	55.00	Each	
278	<b>Credit of Dismantled Item –</b> Any type of iron scrape (Iron Frames, Bars and G.I. Sheet duct)	1500.00	Kg	
279	<b>Credit of Dismantled Item –</b> Old / Broken Aluminium Sections + beading etc.	150.00	Kg	

280	<b>Credit of Dismantled Item –</b> Glazed Shutter	35.00	Sqm		
281	Less buyback of old Ducting etc. on as is where is basis.	1.00	Lot		
282	<b>ELECTRICAL WORK (SH-II)</b>				
283	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS/ HFFR 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/ HFFR PVC insulated copper conductor single core cable etc. as required.				
284	Group C	185.00	Point		
285	Wiring for twin control light point with 1.5 sq.mm FRLS/ HFFR 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/ HFFR PVC insulated copper conductor single core cable etc .as required.	8.00	Point		
286	Wiring for light/ power plug with 2X4 sq. mm FRLS/ HFFR PVC insulated copper conductor single core cable in surface/ recessed steel conduit alongwith 1 No. 4 sq. mm FRLS/ HFFR PVC insulated copper conductor single core cable for loop earthing as required.	300.00	Metre		
287	Wiring for light/ power plug with 4X4 sq. mm FRLS/ HFFR PVC insulated copper conductor single core cable in surface/ recessed steel conduit alongwith 2 Nos. 4 sq. mm FRLS/ HFFR PVC insulated copper conductor single core cable for loop earthing as required.	300.00	Metre		
288	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS/ HFFR PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required.				
289	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	400.00	Metre		
290	2 X 6 sq. mm + 1 X 6 sq. mm earth wire	150.00	Metre		
291	4 X 4 sq. mm + 2 X 4 sq. mm earth wire	400.00	Metre		
292	4 X 6 sq. mm + 2 X 6 sq. mm earth wire	100.00	Metre		
293	Supplying and drawing following sizes of FRLS/ HFFR PVC insulated copper conductor, single core cable in the existing surface/ recessed steel/ PVC conduit as required.				
294	3 x 1.5 sq. mm	300.00	Metre		

295	3 x 2.5 sq. mm	400.00	Metre		
296	3 x 4 sq. mm	400.00	Metre		
297	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.				
298	20 mm	150.00	Metre		
299	25 mm	150.00	Metre		
300	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.				
301	20 mm	150.00	Metre		
302	25 mm	150.00	Metre		
303	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
304	5/6 A switch	60.00	Each		
305	2 way 5/6 A switch	10.00	Each		
306	15/16 A switch	100.00	Each		
307	3 pin 5/6 A socket outlet	60.00	Each		
308	6 pin 15/16 A socket outlet	100.00	Each		
309	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.	40.00	Each		
310	Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required.	20.00	Each		
311	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc. as required.				
312	1 or 2 Module (75mmX75mm)	10.00	Each		
313	3 Module (100mmX75mm)	30.00	Each		
314	6 Module (200mmX75mm)	55.00	Each		
315	12 Module (200mmX150mm)	20.00	Each		
316	Supplying and fixing 3 pin, 5 A ceiling rose on the existing junction box/ wooden block including connections etc. as required.	30.00	Each		

317	Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point (without independent switch etc.) with 1.5 sq. mm FRLS/ HFFR PVC insulated copper conductor single core cable in surface/ recessed steel conduit, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required.				
318	Group C	28.00	Point		
319	Supplying & fixing suitable size GI box with modular plate and cover in front on surface or in recess including providing and fixing 25 A modular socket outlet and 25 A modular SP MCB, "C" curve including connections, painting etc. as required.	18.00	Each		
320	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.				
321	100 A,30KA,FPMCCB	2.00	Each		
322	125 A,36KA,FPMCCB	1.00	Each		
323	250 A,36KA,FPMCCB	1.00	Each		
324	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)				
325	12 way , Double door	2.00	Each		
326	16 way, Double door	1.00	Each		
327	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.)				
328	8 way (4 + 24), Double door	1.00	Each		
329	12 way (4 + 36), Double door	1.00	Each		

330	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.				
331	Single pole	100.00	Each		
332	Single pole and neutral	10.00	Each		
333	Triple pole	4.00	Each		
334	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.				
335	63A	3.00	Each		
336	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.				
337	63A	2.00	Each		
338	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.	5.00	Each		
339	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.	5.00	Each		
340	Supplying and fixing 20 A, 240 V, SPN Industrial type socket outlet, with 2 pole and earth, metal enclosed plug top alongwith 20 A "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket outlet and complete with connections, testing and commissioning etc. as required.	28.00	Each		
341	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.	3.00	Each		

342	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.				
343	100 mm width X 50 mm depth X 1.6 mm thickness	100.00	Metre		
344	300 mm width X 50 mm depth X 1.6 mm thickness	100.00	Metre		
345	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.				
346	100 mm width X 50 mm depth X 1.6 mm thickness	4.00	Each		
347	300 mm width X 50 mm depth X 1.6 mm thickness	4.00	Each		
348	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.				
349	100 mm width X 50 mm depth X 1.6 mm thickness	4.00	Each		
350	300 mm width X 50 mm depth X 1.6 mm thickness	4.00	Each		
351	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "Cross member" (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.				
352	100 mm width X 50 mm depth X 1.6 mm thickness	2.00	Each		

353	Supplying and installing following size of perforated Hot Dipped Galvanised Iron cable tray "Reducer" (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.				
354	300 mm width X 50 mm depth X 1.6 mm thickness	2.00	Each		
355	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.	5.00	Each		
356	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. with charcoal/ coke and salt as required.	2.00	Set		
357	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.	20.00	Metre		
358	Providing and fixing 25 mm X 5 mm GI. strip on surface or in recess for connections etc. as required.	100.00	Metre		
359	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.	200.00	Metre		
360	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.				
361	3.5 X 35 sq. mm (32mm)	10.00	Each		
362	3.5 X 70 sq. mm (38mm)	4.00	Each		
363	3.5 X 150 sq. mm (50mm)	2.00	Each		
364	3.5 X 300 sq. mm (70mm)	4.00	Each		
365	4 X 16 sq. mm (28mm)	20.00	Each		

366	Supplying, installation, testing and commissioning of Passive Infrared(PIR) technology based occupancy sensor having high performance, non regulating programmable type, suitable for connected load upto 10Annp , for mounting height up to 2.8 mtr and for 5 m diameter coverage area along with necessary fixing arrangements i/c programming at site etc. complete as required.	4.00	Each		
367	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.				
368	1 output per phase and suitable for single phase supply	2.00	Each		
369	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 ( $230 \pm 5\% \text{ V}$ , 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.				
370	Two Loop Panel.	1.00	Each		
371	Supplying, installation, testing & commissioning of intelligent analog addressable photothermal detector complete with mounting base complete as required.	35.00	Each		

372	Supplying, installation, testing & commissioning of response indicator on surface/recessed MS Box having two LED, metallic cover complete with all connections etc as required.	10.00	Each		
373	Supplying, installation, testing & commissioning of intelligent addressable programmable sounder complete as required.	3.00	Each		
374	Supplying, installation, testing & commissioning of fault isolator complete with base as required.	2.00	Each		
375	Supplying, installation, testing & commissioning of intelligent addressable thermal detector with rate of rise cum fixed temperature thermistor complete with base as required.	3.00	Each		
376	Supplying, installation, testing & commissioning of addressable manual call point complete as required.	4.00	Each		
377	Supplying, installation, testing & commissioning of 6 zone, voice alarm controller with USB, MP3 player (including 6 zone button paging station) with seamless integration facility with main fire alarm panel for voice evacuation complete as required.	1.00	Each		
378	Supplying, installation, testing & commissioning of 1.5/3/6W ceiling speaker complete as required.	15.00	Each		
379	Supplying, installation, testing & commissioning of 1.5/3/6W metal box ceiling/wall speakers complete as required.	10.00	Each		
380	Supplying, installation, testing & commissioning of digital audio amplifier 75 Watt, 25V rms operating at 240 Volt AC Supply complete as required.	1.00	Each		
381	Supplying & laying of 2x1.5 sqmm fire alarm armoured cable, 600/1000V rated with annealed copper conductor having XLPE insulation, steel wire armouring & FRLS outer sheath complete as required.	350.00	Metre		
382	Supplying and drawing of cable Fire Retardant PVC insulated copper conductor cable in the existing surface / recessed steel conduit of following pairs, cores and size including connections and interconnections etc. as required.				
383	speaker cable Single pair, 2-core, 1.5 sqmm	300.00	Metre		
384	speaker cable Two pair, 2-core, 1.5 sqmm	200.00	Metre		

385	<p>Supply, Installation, Testing and Commissioning of ceiling fan with Brush Less Direct Current (BLDC) Motor, class of insulation: B, 3 nos. metal(Aluminium alloy) blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, steel/Al body. Power Factor not less than 0.9, Service Value (CM/M/W) minimum as below, 350 RPM (tolerance as per IS : 374-2019), THD (Total Harmonic Distortion) less than 10%, remote (preferably mobile app based) for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 0C (max.), insulation resistance more than 2 mega ohm, suitable for 230, 50 Hz, single phase AC supply Ceiling Fan compliant to IS 374:2019 fan i/c external connections with 1.5 sq.mm FRLS/HFFR, PVC insulated copper conductor single core cable and earthing etc. as required.</p>				
386	1200mm, service value $\geq$ 6.0 CM/Min/Watt, air delivery 210 CM/Min (Minimum)	20.00	Each		
387	1400mm, service value $\geq$ 6.0 CM/Min/Watt, air delivery 245 CM/Min (Minimum)	20.00	Each		
388	<p>A) Supplying, installation, testing and commissioning of Electric driven <b>Main Fire Pump</b> suitable for automatic operation and consisting of following, complete in all respects, as required:</p> <p>(B) Horizontal type, multistage, centrifugal, split casing pump of cast iron body &amp; bronze impeller with stainless steel shaft, mechanical seal conforming to IS 1520.</p> <p>(C) Suitable HP Squirrel cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415 volts, 3 phase 50 Hz, AC supply with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325.</p> <p>(D) M.S. fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required.</p> <p>(E) Suitable cement concrete foundation duly plastered with anti vibration pads.</p> <p><b>1620 lpm at 56 m Head</b></p> <p><b>Note: *The head of the pump is selected in a manner so as to give a minimum 3.5kgf/cm<sup>2</sup> pressure at the highest/ farthest point.</b></p>	1.00	Set		

389	<p>A) Supplying, installation, testing and commissioning of <b>diesel engine driven main fire pump</b> suitable for automatic operation and consisting of following, complete in all respects, as required: (Diesel Driven Pump)</p> <p>(B) Horizontal type, multistage, centrifugal pump of cast of iron body and bronze impeller with stainless steel shaft, mechanical seal conforming to IS 1520.</p> <p>(C) Suitable HP, 1500 RPM water cooled with radiator, diesel engine conforming to relevant IS standard complete with auto starting mechanism, 12 /24 volts electric starting equipment, diesel tank, exhaust pipe extended upto 10 m outside pump house duly insulated with 50 mm thick glass wool with 1.0 mm thick aluminium sheet cladding, residential silencer, instruments and protection as per standard specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc. as required.</p> <p>(D) M.S fabricated, common base plate, coupling, coupling guard, foundation bolts etc. as required.</p> <p>(E) Suitable cement concrete foundation duly plastered and with anti vibration pads.</p> <p><b>1620 lpm at 56 m Head</b></p> <p><b>Note: *The head of the pump is selected in a manner so as to give a minimum 3.5kgf/cm<sup>2</sup> pressure at the highest/ farthest point.</b></p>	1.00	Set		
390	<p>(A) Supplying, installation, testing and commissioning of <b>electric driven pressurisation pump</b> suitable for automatic operation and consisting of following, complete in all respects, as required: (Jockey Pump)</p> <p>(B) Horizontal type, multistage, centrifugal pump of cast iron body and bronze impeller with stainless steel shaft, mechanical seal conforming to IS: 1520.</p> <p>(C) Suitable HP squirrel cage induction motor TEFC type suitable for operation on 415 volts, 3 phase 50 Hz AC supply with IP 55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS: 325.</p> <p>(D) M.S.fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required.</p> <p>(E) Suitable cement concrete foundation duly plastered and with anti vibration pads.</p> <p><b>180 lpm at 56 m Head</b></p>	1.00	Set		

391	<p>Supplying, installation, testing and commissioning of <b>electric driven terrace pump</b> suitable for automatic operation and consisting of following, complete in all respects, as required:</p> <p><b>(Terrace Pump)</b></p> <p><b>(a)</b> Horizontal type, centrifugal, split casing pump of cast iron body &amp; bronze impeller with stainless steel shaft, mechanical confirming to IS : 1520</p> <p><b>(b)</b> Suitable HP squirell cage induction motor TEFC type suitable for operation on 415 volts, 3 phase, 50 Hz, AC supply with IP55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325.</p> <p><b>(c)</b> M.S.fabricated common base plate, coupling, coupling guard, foundation bolts etc.as required.</p> <p><b>(d)</b> Suitable cement concrete foundation duly plastered and with anti vibration pads..</p> <p><b>900 lpm at 35 m Head</b></p>	2.00	Set	
392	<p>Fabrication, supply, Insallation testing &amp; commissioning of Electrical control panel of cubical construction, floor mounted type, fabricated out of 2mm thick CRCA sheet, compartmentalised with hinged lockable doors, dust and vermin proof, powder coated of approved shade after 7 tank treatment process, cable alley, inter-connection with suitable size copper conductor cable/solid copper strip, having switchgears and accessories, mountings and internal wiring, earth terminals, numbering etc. complete in all respect, suitable for main fire pump, pressurisation pump &amp; diesel pump set complete as per CPWD specification with following incoming and Outgoings, suitable for operation on 415V, 3 phase, 50Hz Ac Supply with enclosure protection class IP 42 as required:</p>			

393	<p><b>Incomings</b>  250A, 50kA 4 Pole MCCB, Ics=100% Icu rating  Digital Voltmeter 0-500V with selector switch  Digital Ammeter (0-250 A) with selector switch  &amp;  CTs etc. LED type RYB phase indicating lamps,  ON,  OFF, trip indicating lamps  Set of Copper Bus Bar 300A</p> <p><b>OUTGOING</b>  ( Note : All outgoing feeders for pumps should have digital Ammeter with selector switches, and LED type ON, OFF, trip indicating lamps)</p> <p><b>MAIN FIRE PUMP</b>  125 A, 50kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 60 HP pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.</p> <p><b>Jockey Pump</b>  63 A, 50kA TPN MCCB, Ics=100% Icu, with suitable HP fully automatic Star/Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.</p> <p><b>Diesel Engine Control</b>  Control for diesel engine comprising -  Automatic/Manual selector switch &amp; 3 attempts starting device, timers and relays as required, push buttons, start/stop in manual mode  Indicating lamp for high/ Low Lub. Oil pressure, High Water Temp and Engine on indication.  Battery charger suitable for 12V/24 V DC with boost and trickle selector switch, 0-30 V DC voltmeter, and 0-20 A DC ammeter All standard relays and accessories for automatic operation of diesel engine.</p> <p><b>SYSTEM</b></p> <p><b>CONTROLLER</b>  Designing, Supply, Installation, Testing and commissioning of system controller to control operation of main electric fire pump, diesel pump, Pressurization pump, Terrace pump in sequence as per specification consisting of relays, timers. Sensors, annunciation window for fault indication, complete as per specification.</p>	1.00	Set			
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394	Providing laying, testing & commissioning of 'C' class heavy duty MS Pipe conforming to IS 1239/3589 i/c fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. in ground including welding, excavation & providing cement concrete blocks as supports, anticorrosive treatment with coaltar/asphalt tape as per IS 10221, refilling the trench etc. of following sizes complete as required.			
395	200 mm dia (wall thickness 6.3 mm)	20.00	Mtr.	
396	150 mm dia	15.00	Mtr.	
397	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ ceiling with suitable clamp/support frame and ainting with two or more coats of synthetic enamel paint of required shade complete as required :			
398	25 mm dia	90.00	Mtr.	
399	50 mm dia	100.00	Mtr.	
400	80 mm dia	100.00	Mtr.	
401	100 mm dia	50.00	Mtr.	
402	Supplying and fixing single headed internal/External hydrant valve with instantaneous Gunmetal/Stainless Steel coupling of 63 mm dia with cast iron wheel ISI marked conforming to IS 5290 (Type -A) with blank Gunmetal/Stainless Steel cap and chain as required :			
403	Single headed Stainless steel	3.00	Nos.	
404	Supplying and fixing single headed External hydrant valve with instantaneous Gunmetal/Stainless Steel coupling of 63 mm dia with cast iron wheel ISI marked conforming to IS 5290 (Type -A) with blank Gunmetal/Stainless Steel cap and chain as required.			
405	Single headed Stainless steel	1.00	Nos.	
406	Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal seat duly SI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required :			
407	50 mm dia	8.00	Nos.	
408	80 mm dia	6.00	Nos.	
409	100 mm dia	2.00	Nos.	

410	Supplying, fixing, testing & commissioning of double flanged sluice valve of rating PN 1.6 with non rising spindle, bronze/gun metal seat, ISI marked complete with nuts, bolts, washers, gaskets and conforming to IS 780 of following sizes as required :			
411	50 mm dia	4.00	Nos.	
412	80 mm dia	3.00	Nos.	
413	100 mm dia	2.00	Nos.	
414	Supplying and fixing orifice plate made out of 6 mm thick stainless steel (Grade 304) with orifice of required size to be fitted between flange & landing valve of external and internal hydrants to reduce pressure at the outlet to the level of 3.5 kg/cm <sup>2</sup> complete as required.	2.00	Nos.	
415	Providing, installation, testing and commissioning of non-return valve of following sizes confirming to IS: 5312 complete with rubber gasket, GI bolts, nuts, washers etc.as required :			
416	80 mm dia	3.00	Nos.	
417	100 mm dia	3.00	Nos.	
418	Providing, installation, testing and commissioning of stainless steel Y-strainer fabricated out of 1.6 mm thick stainless steel, Grade 304, sheet with 3 mm dia holes with stainless steel flange.			
419	100 mm dia	2.00	Nos.	
420	Supplying and fixing 63 mm dia, 15 m long RRL hose pipe with 63 mm dia male and female couplings duly bound with GI wire, rivets etc. with Hose box (Double Door) (750mm x 600mm x 250mm) 18 gauge suitable conforming to IS 636 (type-A) complete as required.			
421	Stainless Steel (Grade 304)	6.00	Nos.	
422	Supplying and fixing first-aid Hose Reel with MS construction spray painted in post office red, conforming to IS 884 complete with the following as required. <b>(a)</b> 20 mm nominal internal dia water hose thermoplastic (Textile reinforced) type -2 as per IS: 12585 <b>(b)</b> 20 mm nominal internal dia gun metal globe valve & nozzle. <b>(c)</b> Drum and brackets for fixing the equipments on wall. <b>(d)</b> Connections from riser with 25 mm dia stop gun metal valve & M.S. Pipe and socket.			

423	40 m	4.00	Nos.		
424	Supplying and fixing of fire brigade connection of cast iron body with gun metal male instantaneous inlet couplings complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS 904 as required :				
425	2 way-100 mm dia M.S. Pipe	1.00	Nos.		
426	Supplying and fixing air vessel made of 250 mm dia, 8 mm thick MS sheet, 1200 mm in height with air release valve on top and flanged connection to riser, drain arrangement with 25 mm dia gun metal wheel valve with required accessories, pressure gauge and fitting with synthetic enamel paint of approved shade as required.	1.00	Nos.		
427	Providing, fixing, testing & commissioning of 15mm dia quartzoid bulb type sprinklers of rating 68 degree centigrade with required accessories.				
428	Pendent Sprinkler	60.00	Nos.		
429	Providing & fixing of pressure switch in M.S. pipe line including connection etc. as required.	4.00	Nos.		
430	Providing & fixing flow switch in following sizes M.S. pipe including connection etc as required.				
431	100mm dia	2.00	Nos.		
432	Providing, fixing, testing & commissioning of installation control valve of cast iron body, brass/bronze working parts comprising of water motor alarm, bronze seat clapper, clapper arm and hydraulically driven mechanical gong bell to sound continuous alarm when the wet riser/sprinkler system activates, pressure gauges, emergency releases, strainer, pressure switch, cock valve complete with drain valve and bypass, test control box, ball valves, MS pipe of required size, flanges, orifice plate, gasket etc of following sizes as required :				
433	100mm dia	1.00	Set		
434	Supplying, installation, testing & commissioning of sprinkler flexible pipe (UL Listed) of stainless steel complete with 15 NPT on reducer thread with maximum working pressure of 175 PSI test pressure of 875 PSI (Burst) with branch line (inlet) 25 mm NPT male thread to sprinkler head (Outlet) 15 mm NPT female thread with reducer, nipple, 2 side brackets, center bracket, stockbar of following sizes complete as required.				
435	700 mm	20.00	Set		

436	Providing & fixing in position the industrial type pressure Gauges with gun metal/ brass valves in M.S. pipe line including connection etc. as required.	4.00	Nos.	
437	<b>LED Light Fixtures</b>			
438	Supplying, installation, Testing & Commissioning of Panel light 2x2 ft., 36 Watts of following body material and construction as per IS : 10322 with driver as per the requirement with Driver efficiency >85%, Operating voltage AC 140-270 Volt, frequency 50/60 hz, Operating temp range -5 0C to 40 0C, internal surge protection of 2.5 KV with Short & Open circuit protection, THD < 10% , P. F. $\geq$ 0.95, IP20, CRI >80, UGR (Unified Glare Rating) < 19, Flicker free, (flicker should be below 5 %), life time (LED, Driver & electrical circuitry), of minimum 50000 Burning Hours with , 70% of initial Lumen maintained till life ends ,CCT 3000°K / 4000°K / 5700°K /6500°K (As per ANSI Bin), SDCM(Standard Deviation Colour Matching) <3, Maximum power consumption should not more than the specified rating and Fixture shall be of relevant BIS standard. Manufactures Word Mark/ Name Engraved/ Embossing/ Screen printing on housing. complete in all respect i/c external connections with 1.5 sq.mm FRLS/HFFR, PVC insulated copper conductor single core cable and earthing etc. as required with Minimum 5 year OEM warranty. System lumen efficacy >135 lm/Watt output . LM79 & LM80 Test report and all testing required for LED fixtures as per BIS shall be submitted. Shape size and CCT shall be as approved by Engineer-in Charge as per requirement. (Thermal management:heat sink of aluminium housing such that LED junction temperature shall not rise above 90°C). Powder coated die cast /Extruded aluminium Body (Thickness > 1.20 mm)	70.00	Each	

439	<p>Supplying, Installation, Testing &amp; Commissioning of LED Recessed/surface Down lighter of 18 watts (Round /square/Rectangular) SMD type of following body material with PMMA and prismatic diffuser and construction as per IS : 10322 with driver as per the requirement with Driver efficiency &gt;85%, Operating voltage AC 140-270 Volt, frequency 50/60 hz, Operating temp range - 5 0C to 40 0C, internal surge protection of 2.5 KV with Short &amp; Open circuit protection ,THD &lt; 10% , P. F.<math>\geq</math>0.95, IP20, CRI &gt;80, UGR (Unified Glare Rating) &lt; 19, Flicker free, (flicker should be below 5 %), life time (LED, Driver &amp; electrical circuitry), life time of minimum 50000 Burning Hours with 70% of initial Lumen maintained till life ends as per LM80 extrapolation IES TM-21-11 report, CCT 3000°K/ 4000°K /5700°K / 6500°K (As per ANSI Bin), SDCM(Standard Deviation Color Matching)&lt;3, Maximum power consumption should not more than the specified rating and Fixture shall be of relevant BIS standard. Manufactures Word Mark/ Name Engraved/ Embossing/ Screen printing on housing. complete in all respect i/c external connections with 1.5 sq mm FRLS/HFFR, PVC insulated copper conductor single core cable and earthing etc. as required with Minimum 5 year OEM warranty. System lumen efficacy &gt;135 lm/Watt output. LM79 &amp; LM80 Test report and all testing required for LED fixtures as per BIS shall be submitted. Shape size and CCT shall be as approved by Engineer-in-Charge as per requirement. (Thermal management: heat sink of aluminium housing such that LED junction temperature shall not rise above 90°C). Powder coated die cast /Extruded aluminium Body including trim .</p>	30.00	Each						
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440	<p>Supplying, installation, Testing &amp; Commissioning of LED surface mounted Batten light of 40 watts following body material and construction as per IS : 10322 with driver (Replaceable) as per the requirement with Driver efficiency &gt;85% ,Operating voltage AC 140 270 Volt, frequency 50/60 hz, Operating temp range -5 0C to 400C, internal surge protection of 2.5 KV with Short &amp; Open circuit protection ,THD &lt; 10% , P. F.<math>\geq</math>0.95, IP20, CRI &gt;80, Flicker free (flicker should be below 5 %), life time (LED, Driver &amp; electrical circuitry), of minimum 50000 Burning Hours with 70% of initial Lumen maintained till life ends, CCT 3000°K / 4000°K / 5700°K /6500°K (As per ANSI Bin), SDCM(Standard Deviation Color Matching) &lt;3, Maximum power consumption should not more than the specified rating and Fixture shall be of relevant BIS standard. Manufactures Word Mark/ Name Engraved/ Embossing/ Screen printing on housing complete in all respect i/c external connections with 1.5 sq mm FRLS/HFFR, PVC insulated copper conductor single core cable and earthing etc. as required with Minimum 5 year OEM warranty. System lumen efficacy &gt;135 lm/Watt output . LM79 &amp; LM80 Test report and all testing required for LED fixtures as per BIS shall be submitted.. Shape size and CCT shall be as approved by Engineer-in-Charge as per requirement. (Thermal management: heat sink of aluminium housing such that LED junction temperature shall not rise above 90°C). Powder coated die cast /Extruded aluminium Body (Thickness &gt; 1.20 mm)</p>	10.00	Each			
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441	<p>Supplying, installation, Testing &amp; Commissioning of LED surface mounted Batten light of 18-22 watts following body material and construction as per IS : 10322 with driver (Replaceable) as per the requirement with Driver efficiency &gt;85% ,Operating voltage AC 140 270 Volt, frequency 50/60 hz, Operating temp range -5 0C to 400C, internal surge protection of 2.5 KV with Short &amp; Open circuit protection ,THD &lt; 10% , P. F.<math>\geq</math>0.95, IP20, CRI &gt;80, Flicker free (flicker should be below 5 %), life time (LED, Driver &amp; electrical circuitry), of minimum 50000 Burning Hours with 70% of initial Lumen maintained till life ends, CCT 3000°K / 4000°K / 5700°K /6500°K (As per ANSI Bin), SDCM(Standard Deviation Color Matching) &lt;3, Maximum power consumption should not more than the specified rating and Fixture shall be of relevant BIS standard. Manufactures Word Mark/ Name Engraved/ Embossing/ Screen printing on housing complete in all respect i/c external connections with 1.5 sq mm FRLS/HFFR, PVC insulated copper conductor single core cable and earthing etc. as required with Minimum 5 year OEM warranty. System lumen efficacy &gt;135 lm/Watt output . LM79 &amp; LM80 Test report and all testing required for LED fixtures as per BIS shall be submitted.. Shape size and CCT shall be as approved by Engineer-in-Charge as per requirement. (Thermal management: heat sink of aluminium housing such that LED junction temperature shall not rise above 90°C). Powder coated die cast /Extruded aluminium Body (Thickness &gt; 1.20 mm)</p>	15.00	Each			
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442	<p>Supplying, Installation, Testing &amp; Commissioning of Flood Light Of 100 watts, powder coated pressure die cast aluminium body with built in or separate driver as per the requirement with Driver efficiency &gt;85%, Input voltage: Input voltage: 140-270 Volt AC, frequency 50/60 hz, Operating temp range -5 0C to 50 0C, internal surge protection of 5 KV L,N,E as per IEC 61000-4-5, Driver efficiency &gt;85%, THD &lt; 10% as per IEC 61000-3-2, P. F.<math>\geq</math>0.95, IP-66,IK-10, CRI&gt;70, under voltage and over voltage protection, EMI-EMC as per CISPR-15, lenses for beam angle 30 deg-120deg as per the application and the project requirement., suitable tilt able fitting, life time (LED, Driver &amp; electrical circuitry) of minimum 50000 Burning Hours with 70% of initial Lumen maintained till life ends as per LM80 extrapolation IES TM-21-11 report, CCT 3000°K / 4000°K / 5700°K /6500°K (As per ANSI Bin) , SDCM(Standard Deviation Colour Matching) &lt;5, Maximum power consumption should not more than the specified rating and Fixture shall be of relevant BIS standard complete in all respect i/c external connections with 1.5 sq.mm FRLS/HFFR, PVC insulated copper conductor single core cable and earthing etc. as required with Minimum 5 year OEM warranty. System lumen efficacy &gt;135 lm/Watt output. LM79 &amp; LM80 Test report and all testing required for LED fixtures as per BIS shall be submitted. Shape size and CCT shall be as approved by Engineer-in-Charge as per requirement. (Thermal management: heat sink of aluminium housing such that LED junction temperature shall not rise above 90°C).</p>	10.00	Each			
443	<p>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&lt;10 %</p>	16.00	Each			

444	Supplying and installation of Decorative 8W LED Bollard, Cylindrical / 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 %	30.00	Each		
445	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.	50.00	Each		
446	Supply & fixing of 65 mm dia.'B' class GI pole 3.5 mtr. Long for post top lantern with weather proof box i/c bas plate 300 x 300 x 3mm GI reducer & nipple for mounting the fitting with painting etc. grounting in cement concrete 1: 3: 6 (1 cement : 3 coarse sand : 6 grade stone aggregate 40mm complete as reqd.	15.00	Each		
447	Supplying and installation of LED High bay light with energy saving, environmental friendly, long life, exclusive innovative die-cast aluminium IP65, suitable for ceiling mounted( Surface/ suspended) 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 65. THD<10 %	12.00	Each		

448	<p>Supplying, Installation, Testing &amp; Commissioning of Street light LED fixture of 45 watts, powder coated pressure die cast aluminium body with built in or separate driver as per the requirement with Driver efficiency &gt;85%, Input voltage: 140-270 Volt AC, frequency 50/60 hz, Operating temp range -5 0C to 50 0C, internal surge protection of 5 KV L,N,E as per IEC 61000-4-5, Driver efficiency &gt;85%, THD &lt; 10% as per IEC 61000-3-2, P. F.<math>\geq</math>0.95, IP-66, IK-10, CRI &gt;70, under voltage and over voltage protection, EMI-EMC as per CISPR-15, lenses for beam angle as per IESNA type I/II/III as per the width of the road and the project requirement., suitable to fit in up to 65mm dia pipe, life time (LED,Driver &amp; electrical circuitary) of minimum 50000 Burning Hours with 70% of initial Lumen maintained till life ends as per LM80 extrapolation IES TM-21-11 report, CCT 3000°K / 4000°K / 5700°K /6500°K (As per ANSI Bin), SDCM(Standard Deviation Color Matching) &lt;5, Maximum power consumption should not more than the specified rating and Fixture shall be of relevant BIS standard complete in all respect i/c external connections with 1.5 sq mm FRLS/HFFR, PVC insulated copper conductor single core cable and earthing etc. as required with Minimum 5 year OEM warranty. System lumen efficacy &gt;135 lm/Watt output . LM79 &amp; LM80 Test report and all testing required for LED fixtures as per BIS shall be submitted.. Shape size and CCT shall be as approved by Engineer-in-Charge as per requirement. (Thermal management: heat sink of aluminium housing such that LED junction temperature shall not rise above 90°C).</p>	10.00	Each			
449	Supplying, installation DLP mini- trunking 32mm x 20mm with independent cover etc. complete as reqd.					
450	PVC mini trunking with independent cover of size 32mm x 20mm size.	80.00	Metre			
451	PVC mini trunking End cap left or right.	5.00	Metre			
452	PVC mini trunking Internal/ External angle from 60°-120°	5.00	Each			
453	PVC mini trunking Flat angle from 85°-95°	5.00	Each			
454	PVC mini trunking Flat junction	5.00	Each			

455	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]				
456	4 X 16 sq. mm	180.00	Metre		
457	3½ X 35 sq. mm	50.00	Metre		
458	3½ X 70 sq. mm	50.00	Metre		
459	3½ X 150 sq. mm	10.00	Metre		
460	3½ X 300 sq. mm	300.00	Metre		
461	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].				
462	3½ X 300 sq. mm	20.00	Metre		
463	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].				
464	4 X 16 sq. mm	50.00	Metre		
465	3½ X 35 sq. mm	20.00	Metre		
466	3½ X 70 sq. mm	20.00	Metre		
467	3½ X 150 sq. mm	10.00	Metre		
468	3½ X 300 sq. mm	20.00	Metre		
469	<b>Fans.</b>				
470	Supplying and fixing of 450mm Heavy duty air circulator Wall mount fan complete with all accessories for use on 220/240 volts 50 HZ, single phase A/C Supply including connection with 1.5 sq. mm FRLS PVC insulated, copper conductor single/ multi core cable etc as reqd	20.00	Each		
471	Supplying and fixing of 250 mm size fresh air fan complete with suitable size louvers with all accessories suitable for use on 230 V , 50 Hz supply in the existing opening, including making good the damage , connection, testing and commissioning etc. as required.as required	10.00	Each		

472	Supplying and fixing of 300 mm size, 900 rpm heavy duty exhaust fan complete with suitable size louvers with all accessories suitable for use on 230 V , 50 Hz supply in the existing opening, including connection with 1.5 sq. mm FRLS PVC insulated, copper conductor single/ multi core cable and making good the damage , testing and commissioning etc. as required.	10.00	Each		
473	Supplying and fixing of 450 mm size, 900 rpm heavy duty exhaust fan complete with suitable size louvers with all accessories suitable for use on 230 V , 50 Hz supply in the existing opening, including connection with 1.5 sq. mm FRLS PVC insulated, copper conductor single/ multi core cable and making good the damage , testing and commissioning etc. as required.	10.00	Each		
474	Supplying and fixing fan hook incuding making the arrangement in slab structure to hanging the fan hook including fabrication, welding, painting etc. complete as reqd.	10.00	Each		
475	Supply and installation of SS enclosure duly powder Coated paint for housing incomming MCCB 4P suitable upto 125 Amp and 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	2.00	Each		
476	Supply and installation of SS enclosure duly powder Coated paint for housing incomming MCCB 4P suitable from 160 amp upto 250 Amp and 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.	2.00	Each		
477	<b>Electrical Panel board</b>				

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 produce the relevant test certificate as per IEC code for the same failing which panel shall be rejected) and CPRI Approved.] <b>Incoming</b> <b>(a)</b> 400 amp, 4P, 36KA, 50HZ, 415V, AC MCCB with thermal magnetic based releases for O/C & S/C protection = 01 Nos. <b>Bus Bar</b> 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 withstand symmetrical fault level of 35 kA. at 415 Volts. The Neutral busbar is to be of 100% capacity. <b>Outgoing</b> <b>(a)</b> 250 amps, 4P, 36KA, 50HZ, 415V, AC MCCB with thermal magnetic based releases for O/C & S/C protection = 01 Nos. <b>(b)</b> 125 amps, 4P, 36KA, 50HZ, 415V, AC MCCB with thermal magnetic based releases for O/C & S/C protection = 04 Nos. <b>(c)</b> 63 amps, 4P, 36KA, 50HZ, 415V, AC MCCB with thermal magnetic based releases for O/C & S/C protection = 04 Nos. <b>(d)</b> Earthing studs 2 Nos <b>(e)</b> Danger plate – 01 Nos <b>Metering</b> <b>(a)</b> Digital Ammeter - 01 Nos with accuracy class 1.0 <b>(b)</b> Digital Voltmeter - 01 Nos with accuracy class 1.0 <b>(c)</b> RYB indicating lamp <b>(d)</b> Suitable CT's <b>(e)</b> Rotatory handle in each switch	1.00	Each				
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479	<p>Design, Fabrication, Supplying, testing &amp; 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.</p> <p>[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.]</p> <p><b>Incoming</b></p> <p>(a) 250 amp, 4P, 36KA, 50HZ, 415V, AC MCCB with thermal magnetic based releases for O/C &amp; S/C protection = 01 Nos.</p> <p><b>Bus Bar</b></p> <p>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 withstand symmetrical fault level of 35 kA. at 415 Volts. The Neutral busbar is to be of 100% capacity.</p> <p><b>Outgoing</b></p> <p>(a) 160 amps, 4P, 36KA, 50HZ, 415V, AC MCCB with thermal magnetic based releases for O/C &amp; S/C protection = 01 Nos.</p> <p>(b) 125 amps, 4P, 36KA, 50HZ, 415V, AC MCCB with thermal magnetic based releases for O/C &amp; S/C protection = 02 Nos.</p> <p>(c) 63 amps, 4P, 36KA, 50HZ, 415V, AC MCCB with thermal magnetic based releases for O/C &amp; S/C protection = 04Nos.</p> <p>(d) Earthing studs 2 Nos</p> <p>(e) Danger plate – 01 Nos.</p> <p><b>Metering</b></p> <p>(a) Digital Ammeter - 01 Nos with accuracy class 1.0</p>	1.00	Each				
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	(b) Digital Voltmeter - 01 Nos with accuracy class 1.0 (c) RYB indicating lamp (d) Suitable CT's (e) Rotatory handle in each switch			
480	Supply installation, testing and commissioning of reverse osmosis system of 100 LPH capacity with following specification:- RO with UV and UF, ESS post RO purification, Working pressure 150 to 250 psi, recovery of pure water up to 60 to 70% with 0.75 kW/1HP booster pump, Pure water and waste water pressure guage, water quality indicator like TDS meter, change cartage indicator, Pre filtration by carbon media vessel FRP size 20 inch or equivalent, Filtration by dual media filter, Micron cartridge filter 20", Membrane-300GPDX2, 100GPDX1, WATER SAVER CARTRIDGE 20 INCHX1, Run water pump of 0.5 hp, Digital pH meter with carbon vessel, dual media filter, micro cartage filter with all fully automatic operation like main supply on/off overload protections, pressure pump on/off, level sensor, automatic float switch etc.	1.00	Nos	
481	Supply installation, testing and commissioning of ISI Mark self drinking water cooler of 150 Litre storage and 150 LPH cooling capacity with following specification:- Water cooler with stainless steel 304 grade full body of 0.8 MM gauge (food grade steel should be properly puffed) with water supply pressure less than 5 m with two number faucets and 32 MM SS socket with hermetically sealed reciprocating compressor ( Make Kirloskar, Tecumseh, Emersion) Confirm to IS:10617, part 1 1980 with refrigerant R-407c, Ambient temp 35 deg C, Inlet water temp 30Deg C +/-2Deg C, Outlet Water Temp 15 +/- 2 DegC, Pull down time as per IS 1475/78 with amendment no 1 to 7, Fan motor max. drawn power 130W, Power factor not less than 0.85, Wattage max. 2100Watts, with capacity 13500 Btu/hr 3954 Watts, Maximum wattage 1300 Watts, water tank cover should be hinges and internal lock with door gasket, rated voltage 230Volts AC, 50 Hz with 01 year warranty and 05 year warranty on compressor.	1.00	Nos	

482	<b>HVAC WORK</b>				
483	<b>SUB HEAD III (SITC)</b>				
484	<b>OUTDOOR UNIT:</b> Supply, Installation, Testing & Commissioning of Modular type Variable Refrigerant Flow (VRF)/Variable Refrigerant Volume (VRV) air cooled Outdoor (Condenser) units suitable for cooling having 100% hermetically sealed inverter type twin Rotary/Scroll Compressor(s), minimum two compressors (with individual separate PCB) for above 14 HP modules, microprocessor based Controller, top discharge type condensing unit(s), with R-410-A Refrigerant or equivalent, vibration Isolators with suitable foundation etc. complete as required. To have better efficiency condenser fan shall be capable to operate at different speed with respect to load. The unit shall deliver the rated capacity and in conformation as per IS 18728:2024 and CPWD Specifications and work even at 50°C ambient temperature without tripping. The system shall be able to deliver 100% of the rated capacity upto 39 Degree Celsius. The unit shall be suitable to work on 400V +/- 10%, 3 Phase, 50Hz ac power supply and BMS compatible. The unit shall be filled with first charge of the refrigerant and ready for use as required. The condenser should be coated with a hydrophilic film to prevent water accumulation on the surface of the heat exchanger, enhance water dispersion, and reduce the risk of degradation, thereby improving overall performance and durability. The Indian Seasonal Energy Efficiency Ratio of the unit shall be as per following and complete as per CPWD specification, connections, interconnections etc. as required.				
485	For Neelkanth Hall, Not less than 18 HP Module each, Value of ISEER shall not be less than 5.5	4.00	Module		

486	<p><b>INDOOR UNIT HIGH WALL TYPE:</b> Supply, Installation, Testing and Commissioning of following minimum capacity High wall type Indoor unit equipped with and comfort washable synthetic media pre-filter, fan section with low noise fan/dynamically balanced blower, multispeed motor, coil section with DX copper coil, electronic expansion valve, outer cabinet, cord less remote control with batteries as required, drain pan, necessary accessories etc., suitable for operation on 230 V ± 10%, 50 Hz, single phase ac supply, complete as required. The Indoor units must shut down upon receiving a signal from the BMS System/Fire Signals. The system shall be capable to adjust air flow as per room requirement automatically. The cooling capacity of indoor unit will be at air inlet conditions of 27 Degree C DB and 19 Degree C WB temperature. (Make will be same as of Outdoor)</p>				
487	Not less than 1.6 TR	9.00	Each		
488	Not less than 2.0 TR	2.00	Each		
489	<p><b>DUCTABLE INDOOR:</b> Supply, installation, testing and commissioning of following minimum capacity and external static pressure VRF/VRV ceiling / wall mounted ductable type Indoor unit with necessary rigid steel support, equipped with washable synthetic media pre-filter, fan section with low noise fan/dynamically balanced blower, multispeed motor, coil section with DX copper coil, electronic expansion valve, corded remote control, outer cabinet, vibration isolators, drainpan, drainpump other necessary supports etc., suitable for operation on single phase AC supply 230V±10%, 50 Hz complete as required. The unit shall have automatic force shut down provision in case of fire on receiving signal from BMS System. The cooling capacity of indoor unit will be at air inlet conditions of 27 Degree C DB and 19 Degree C WB temperature. Unit shall be fitted with eye ball type spot jet diffuser (4 nos. or 3 nos. as directed) made of Aluminum construction with fully reversible spout with 180 degree rotation. Jet nozzle section is mounted in aluminium / GI square plate covered by flanged border onto the unit delivery mouth with necessary ducting work or modifications.</p>				

490	Not less than 5.5 TR capacity High Static Ductable units (minimum 78 pascal external static pressure) [Acceptable make of unit as per main out door unit]	8.00	Each		
491	Supply, Installation, testing and commissioning including vacuumization and Nitrogen testing of following nominal sizes of soft / hard drawn copper refrigerant piping for VRV / VRF / Split AC system, complete with fittings (including Y-joints), with suitable adjustable ring type hanger supports, jointing / brazing including accessories, <b>cutting of glass window wherever required</b> with proper finishing, insulated with XPLE Class-O tubular insulation / with Class-O closed cell elastometric nitrile rubber tubular sleeves sections of specified thickness as given below for Suction and Liquidlines, all accessories as per specifications etc. packing of all leakage either on wall or window with silicon / insulation, as required.				
492	6.4 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm with 19 mm thick insulation	325.00	Metre		
493	9.5 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm with 19 mm thick insulation	275.00	Metre		
494	12.7 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm with 19 mm thick insulation	250.00	Metre		
495	15.86 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm with 19 mm thick insulation	200.00	Metre		
496	19 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	250.00	Metre		
497	22.2 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	100.00	Metre		
498	25.4 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	90.00	Metre		
499	28.58 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	100.00	Metre		
500	31.8 mm dia (OD) (Hard drawn) with tube thickness 1.62 mm with 19 mm thick insulation	125.00	Metre		
501	34.9 mm dia (OD) (Hard drawn) with tube thickness 1.62 mm with 19 mm thick insulation	75.00	Metre		
502	Supply, Installation, Testing and Commissioning of Y/T/Multi Joints. Joints shall be of same Original Equipment Manufacturer (OEM) make as of ODUs and IDUs.				
503	Indoor Multi Joint	60.00	Each		
504	Outdoor Multi Joint	20.00	Each		

505	<b>GI TRAY SUPPORT:</b> 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 / supported from the ceiling / wall with GI suspenders including GI bolts and nuts, GI C-Channels, etc. including bends, reducers, Tees, cross-members as required, GI protective sheet covering (for outdoor portion) outside the room etc. as required.			
506	225 mm width x 50 mm depth x 1.6 mm thickness	225.00	Metre	
507	300 mm width x 50 mm depth x 1.6 mm thickness	150.00	Metre	
508	150 mm width x 50 mm depth x 1.6 mm thickness	100.00	Metre	
509	<b>DRAIN / CABLE PIPE:</b> Supplying and laying of ISI marked <b>CPVC pipe of 25 mm dia</b> for draining of sweated water / drawing communication cable from AC evaporator (indoor) unit including providing tee, joints, elbows, supports, etc. insulated with XLPE class - O tubular insulation / with Class-O closed cell elastomeric nitrile rubber tubular sleeves sections of 19 mm thick etc. complete as required. (Acceptable make: Astral / Geroge Fischer / Finolex / Prakash / Supreme / Prince)	150.00	Metre	
510	DRAIN PIPE: Supplying and laying of ISI marked <b>flexible not less than 3 layered braided PVC pipe of 25 mm dia</b> for draining of sweated water from AC evaporator (indoor) unit including providing tee, joints, elbows, supports, etc. wherever required etc. complete as required.	250.00	Metre	
511	Supplying and laying of ISI marked <b>FRLS industrial multistranded following type copper cable of following size</b> of 1.1 kv grade conforming to IS694:2010 including making connection etc. for communication / indoor power supply between indoor and outdoor unit and other units, etc. (Acceptable make: KEI / Finolex / Polycab / Universal / Havells / Gloster / RR Kabel / Rallison) [NB: Single stranded cable not to be used]			
512	2 core x 1.5 sqmm <b>unarmoured</b> alongwith hard PVC conduit not less than 20 mm alongwith bends, tees etc. of make Astral / Supreme / Finolex / Prakash / Prince.	400.00	Metre	
513	3 core x 2.5 sqmm <b>armoured</b>	300.00	Metre	
514	4 core x 16 sqmm <b>armoured</b>	200.00	Metre	

515	Supplying and fixing of following way, single pole and neutral, sheet steel, <b>MCB distribution board</b> , 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) (Acceptable make: Havells / Siemens / L&T / Legrand / ABB / Schneider / C&S / HPL / Hager)				
516	12 Way, Double door	3.00	Each		
517	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, <b>miniature circuit breaker</b> suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. (Acceptable make: Havells / Standard / HPL/ Legrand / L&T / Polycab / C&S / ABB / Siemens / Schneider)				
518	Single Pole	20.00	Each		
519	Double pole (as incomer to DB)	2.00	Each		
520	Triple Pole and Neutral	1.00	Each		
521	Triple Pole	4.00	Each		
522	Supplying and fixing <b>cable end box (loose wire box)</b> suitable for 12 / 16 way double door SPN MCB DB on surface / recess complete with testing and commissioning etc. as required.	2.00	Each		
523	Providing and fixing <b>4 mm dia copper wire</b> on surface or in recess for loop earthing along with existing surface / recessed conduit / submain wiring / power cable as required.	500.00	Metre		
524	Providing and fixing following rating and breaking capacity and pole <b>MCCB Conforming to IS/IEC 60947-2 &amp; IEC 60947-2</b> with thermomagnetic release and terminal spreaders <b>in sheet steel enclosure</b> including drilling holes, duly factory painted as required, making connections, providing spreader terminal, etc. as required. (Acceptable make: Siemens / L&T / GE Power / C&S / Crompton / Havells / Legrand) For main power connection.				
525	200 A, 36 kA, FPMCCB	1.00	Each		
526	Supplying and making <b>end termination</b> with brass compression gland and tinned copper lugs for following size of pvc insulated and pvc sheathed / XLPE copper conductor cable of 1.1 kV grade as required.				
527	4 core x 16 sqmm armoured	12.00	Each		

528	3 core x 2.5 sqmm armoured	6.00	Each		
529	Fabricating, Providing and fixing <b>M.S. iron frame</b> fabricated with M.S. C-channel of size 50 mm x 50 mm x 6 mm (thick) for resting the condenser unit on the roof / floor of the building duly supported from the bottom as required including painting and grouting the framework with cement concrete etc. complete as required. (Acceptable make of angle: SAIL / Jindal / TATA / Prakash / Nezone)	30.00	Metre		
530	Providing and laying in position cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) in foundation of pump, VRF/VRV Outdoor etc including form work etc as required.	2.00	cum		
531	Supplying and fixing following way prewired vertical type TP&N MCB distribution board of steel sheet for 415 volts on surface/ recess complete with loose wire box of sheet steel, dust protected, duly powder painted, inclusive of 200 amps tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCB's, terminal connectors for all incoming and outgoing circuits, duly prewired with adequate size of FR PVC insulated copper conductor upto the terminal connector/ neutral link, earthing etc as required (But without MCB/ RCCB/ Isolator).				
532	8 Way (4 + 24), Double door	1.00	Each		
533	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	15.00	Each		
534	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.	2.00	Each		
535	Providing and laying earth connection from earth electrode with 4.00 mm dia copper wire in 15 mm dia G.I. pipe from earth electrode including connection with copper thimble excavation and re-filling as required.	50.00	Metre		
536	<b>(AMC) (Supplementary agreement shall be formed after DLP) under ARMO Fund</b>				

537	<b>Comprehensive (Routine, Preventive and Breakdown) maintenance of 72 HP VRF / VRV Type AC unit including its all accessories, condensers, evaporator units, time to time checking of refrigerant leakage, electrical circuits, etc. for smooth operation of the entire AC units during the defect liability period of 1 year after date of commissioning as per maintenance schedule. (No payment shall be made separately for this period): 1st Year</b>			
538	<b>Comprehensive (Routine, Preventive and Breakdown) maintenance of all modules of 72 HP VRF / VRV Type AC unit including its all accessories, condensers, evaporator units, time to time checking of refrigerant leakage, electrical circuits, etc. for smooth operation of the entire AC units after defect liability period of 1 year from the date of commissioning as per maintenance schedule. Any breakdown shall be attended within 4 hours of reporting. <b>Spare parts required during breakdown maintenance shall be arranged and replaced by the Contractor.</b> This is applicable for the whole system of AC units installed. (N.B.: 01 Job means during a period of one year)</b>			
539	2nd year (For 12 months)	1.00	Job	
540	3rd year (For 12 months)	1.00	Job	
541	4th year (For 12 months)	1.00	Job	
542	5th year (For 12 months)	1.00	Job	
543	6th year (For 12 months)	1.00	Job	
	<b>Total</b>			

**Special Conditions: -**

1. No labour huts shall be allowed in IIT Campus, and nothing shall be paid extra on this account.
2. The contractor must visit the site of work /buildings before quoting the rates.
3. No labour to stay in IIT Campus nothing shall be paid extra on this account.
4. Site shall be available in parts or phases as per directions of Engineer in Charge and nothing extra on this amount shall be paid to contractor.
5. Quoted rates of participating agencies shall be inclusive of GST.
6. The rates for different items of work shall apply for all heights & depths, Leads & Lifts and nothing extra shall be paid on these accounts.
7. Engineer-in-charge may foreclose the work wherever desire, 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 & profit of damages etc. or any other claim shall be payable at all security deposit shall release after completion of defect liability period starting from foreclosure date.