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INDEX

Name of Work: Carrying out maintenance & minor civil works in residences and community buildings on south side of main drive (Part-II)

Sl.N o.	Description	Page
1	Index Page	1
2	Notice inviting E-tenders	2
3	Information and e-Tendering for Contractors	3-5
4	Notice Inviting Tenders (Form CPWD-6)	6-9
5	Tender (Form CPWD-7)	10-14
6	Additional terms & conditions	15-20
7	Indemnity Bond	21-27
8	Guarantee Bond	28-30
9	Water proofing guarantee bond	31-32
10	Form of EMD deposit	33-34
11	Bill of Quantity	35-93

NIT amounting to Rs. 76,46,958.00 (Rupees Seventy Six Lac Forty Six Thousand Nine Hundred Fifty Eight Only) is approved.

[Certified that this N.I.T. contains 93 (Ninety Three) pages]

**Sr. Assistant Engineer (SG)
I.W.D. Division-I
I.I.T., Kanpur**

**Executive Engineer
I.W.D. Division-I
I.I.T., Kanpur**

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INDIAN INSTITUTE OF TECHNOLOGY KANPUR
INSTITUTE WORKS DEPARTMENT
CENTRAL OFFICE
Notice Inviting e-Tenders

The Superintending Engineer, IWD, IIT Kanpur invites on behalf of Board of Governors of IIT Kanpur online percentage rates tender on single bid system from the Registered contractors in CPWD, BSNL, MES, UPPWD & Central PSUs in appropriate category having experience similar nature of works last 7 years for the following works.

1. NIT No. 09/C/D1/2019-20/01, Name of work: ***Carrying out maintenance & minor civil works in residences and community buildings on south side of main drive (Part-II)**, Estimated cost **Rs. 76,46,958/-**, Earnest money **Rs. 1,52,939/-**, Period of completion **12 months**, Last time and date of submission of bid 3.30 PM on **03.09.2019**.

*The tenders for above work is being invited for fixing the item rates of the civil works for a period of one year. The works shall be carried out on work order basis based on the requirement upto a maximum value of Rs. 1.30 Lac per work order.

The bid forms and other details are available on website www.iitk.ac.in/iwd/tenderhall.htm, www.tenderhome.com & www.eprocure.gov.in/eprocure/app. But the bids can only be submitted online on www.eprocure.gov.in/eprocure/app. Any corrigendum regarding this tender will be published only on above mentioned website.

No. IWD/CO/2019-20/360

Dated: 14.08.2019

Superintending Engineer

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INFORMATION AND INSTRUCTIONS FOR CONTRACTORS FOR e-TENDERING FORMING PART OF NIT AND TO BE POSTED ON WEBSITE

The Superintending Engineer, IWD, I.I.T., Kanpur on behalf of Board of Governors of IIT Kanpur invites online percentage rate tender from approved and eligible* contractors for the following work(s):

S. No. 1	NIT NO.	Name of work and location	Estimated cost put to tender	Earnest Money	Period of Completion	Last date & time of submission of tender	Period during which EMD and other Documents shall be submitted	Time & date of opening of tender
1	09/C/D1/2019-20/01	Carrying out maintenance & minor civil works in residences and community buildings on south side of main drive (Part-II)	Rs. 76,46,958/-	1,52,939.00	12 Months	Upto 3.30 PM on 03.09.2019	upto 3:30 PM on 05.09.2019	At 3:30 PM on 06.09.2019

*The eligible contractors means registered in CPWD, BSNL, MES, UPPWD & Central PSUs if they furnish the definite proof from the appropriate authority of having satisfactorily completed three similar works of value 50% or two similar works of value 60% or one similar work of value 80% of estimated cost during last seven years.

The enlistment / registration 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 / registered of contractor should be valid on the original date of submission of tenders.

1. The intending tenderer must read the terms and conditions of CPWD-6 for e-Tendering carefully. He should only submit his tender if he

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considers himself eligible and he is in possession of all the documents required.

2. Information and Instructions for tenderer posted on website shall form part of tender document.
3. The bid document consisting of plans, specifications the schedule of quantities of varies types of items to be executed and set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website www.iitk.ac.in/iwd/tenderhall.htm, <https://eprocure.gov.in/eprocre/app> and www.tenderhome.com free of cost and shall be submitted on line on website <https://eprocure.gov.in/eprocre/app>.
4. The intending tenderer has to fill all the details such as Banker's name, Demand Draft/Fixed Deposit Receipt /Pay Order/ Banker's Cheque/Bank Guarantee number, amount and date.

The amount of EMD can be paid by multiple Demand Draft / Pay Order / Banker's Cheque / Deposit at call receipt / Fixed Deposit Receipts along with multiple Bank Guarantee of any Scheduled Bank if EMD is also acceptable in the form of Bank Guarantee.

5. 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.
6. The intending tenderer must have valid class-III digital signature to submit the tender.
7. On opening date, the contractor can login and see the tender opening process. After opening of tenders he will receive the competitor tender sheets.
8. Contractor can upload documents in the form of JPG format and PDF format.
9. Contractor must ensure to quote rate of each item. The column meant for quoting rate in figures appears in yellow colour.

In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0". Therefore, if any cell is left blank and no rate is quoted by the tenderer, rate of such item shall be treated as "0" (ZERO).

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

- Copy of Registration with the Department.
- Required Experience / completion certificates of similar nature of works.
- Registration Certificates of EPF / ESIC
- Scan copy of E.M.D. as to be submitted in hard copy.
- GST Registration No.

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FORM -6 FOR e-Tendering

The Superintending Engineer, IWD, I.I.T., Kanpur on behalf of Board of Governors of IIT Kanpur invites online percentage rate tender from approved and eligible* contractors for the work of: **Carrying out maintenance & minor civil works in residences and community buildings on south side of main drive (Part-II).**

1. The work is estimated to cost **Rs. 76,46,958.00**. This estimate, however, is given merely as a rough guide.

Criteria of eligibility

*The eligible contractors means registered in CPWD, BSNL, MES, UPPWD & Central PSUs if they furnish the definite proof from the appropriate authority of having satisfactorily completed three similar works of value **50%** or two similar works of value **60%** or one similar work of value **80%** of estimated cost during last seven years.

2. Agreement shall be drawn with the successful tenderers on prescribed Form No. CPWD 7 (or other Standard Form as mentioned) which is available as a Govt. of India Publication and also available on website www.iitk.ac.in Tenderers 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 is **12 months** from the date of start as defined in schedule „F“.
4. The site for the work is available.*
5. The bid document consisting of plans, specifications the schedule of quantities of varies types of items to be executed and set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website www.iitk.ac.in/iwd/tenderhall.htm, <https://eprocure.gov.in/eprocure/app> and www.tenderhome.com free of cost and shall be submitted on line on website <https://eprocure.gov.in/eprocure/app> other necessary documents also can be seen in the office of the Executive Engineer, IWD Division-I, IIT, Kanpur between hours of 10:00 AM to 5:00 PM from **16.08.2019 to 02.09.2019** every day accept on Saturdays, Sundays and Public Holidays free of cost.
6. After submission of the tender the contractor can re-submit revised tender any number of times but before last time and date of submission of tender as notified.

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- 7. While submitting the revised tender, 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. Earnest Money can be paid in the form of Treasury Challan or Demand Draft or Pay order or Banker`s Cheque or Deposit at Call Receipt or Fixed Deposit Receipt (drawn in favour of **the Director, IIT, Kanpur**) along with Bank Guarantee of any Scheduled Bank wherever applicable.

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

Treasury Challan or Demand Draft or Pay Order or Banker`s Cheque or Deposit at Call Receipt or FDR or Bank Guarantee against EMD, proof of Cost of Tender Document and Cost of Tender Processing Fee shall be placed in single sealed envelope superscripted as "Earnest Money, proof of Cost of Tender Document and Cost of Tender Processing Fee" with name of work and due date of opening of the tender also mentioned thereon.

The copy of work experience wherever applicable and other documents if required and specified in this bid document shall be scanned and uploaded to the e-Tendering website within the period of tender submission and certified copy of each shall be deposited in a separate envelop marked as "Other Documents" in the divisional office upto **3.30 PM on 05.09.2019**.

Both the envelopes shall be placed in another envelope with due mention of Name of work, date & time of opening of tenders and to be submitted in the office of Executive Engineer after last date & time of submission of tender and up to 03:30 PM **on 05.09.2019**.

Online tender documents submitted by intending tenderers shall be opened only of those tenderers, whose Earnest Money Deposit, proof of cost of Tender Document and e- Tender Processing Fee and other documents placed in the envelope are found in order.

The tender submitted shall be opened at 03:30 PM on **06.09.2019**.

- 9. The tender submitted shall become invalid and cost of tender & e-Tender processing fee shall not be refunded if:
 - (i) The tenderer is found ineligible.
 - (ii) The tenderer does not upload all the documents as stipulated in the tender document.
 - (iii) If any discrepancy is noticed between the documents as uploaded at the time of submission of tender and hard copies as submitted physically in the office of tender opening authority.

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10. The contractor whose tender is accepted will be required to furnish performance guarantee of 5% (Five Percent) of the tendered amount within the period specified in Schedule F. This guarantee shall be in the form of 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 the guarantee amount is less than Rs. 1,00,000.00) 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 annexes hereto. **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.**
11. Intending Tenderers 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 tenderers 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 tenderers 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 tenderers implies that he has read this notice and all other conditions of contract documents and has made himself aware of the scope and specifications of the work and local conditions and other factors having a bearing on the execution of the work.
12. The competent authority on behalf of the Board of Governors, IIT, Kanpur 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 tenderers shall be summarily rejected.
13. 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 for rejection.
14. The competent authority on behalf of Board of Governors, IIT, Kanpur reserves to himself the right of accepting the whole or any part of the tender and the tenderers shall be bound to perform the same at the rate quoted.
15. The contractor shall not be permitted to tender for works in the IIT Kanpur responsible for award and execution of contracts, in which his near relative is

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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 Kanpur. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department.

16. 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 tender or engagement in the contractor's service.
17. The tender for the works shall remain open for acceptance for a period of **ninety (90) days** from the date of opening of tenders 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 tenderers shall not be allowed to participate in the retendering process of the work.
18. This Notice Inviting Tender shall form a part of the contract document. The successful tenderers/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 tender and acceptance thereof together with any correspondence leading thereto.
 - b) Standard C.P.W.D. Form 7 or other Standard C.P.W.D. Form as applicable.

**Superintending Engineer
For & on behalf of the Board of Governors, IIT, Kanpur**

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INSERTION (I)	NIL	
DELETION (D)	NIL	



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CPWD-7

PERCENTAGE RATE TENDER AND CONTRACT FOR WORKS

(A) Tender for the work of:

Carrying out maintenance & minor civil works in residences and community buildings on south side of main drive (Part-II)

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, IIT, Kanpur within the time specified in Schedule 'F', viz., schedule of quantities and in accordance in all respects with the specifications, designs, drawings 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 respects in accordance with, such conditions so far as applicable.

We agree to keep the tender **open for (90) ninety days from the date of opening of tender** and not to make any modifications in its terms and conditions.

A sum of Rs. **1,52,939/-** is hereby forwarded in Cash/Receipt Treasury Challan/Deposit at call Receipt of a Scheduled Bank/Fixed deposit receipt of scheduled bank/demand draft of a scheduled bank/bank guarantee issued by scheduled bank as earnest money. If I/we, fail to furnish the prescribed performance guarantee or fail to commence the work within prescribed period I/we agree that the said Board of Governors, IIT, Kanpur 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 of commence work as specified, I/we agree that Board of Governors, IIT, Kanpur or his 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 therein and to carry out such deviations as may be ordered, up

10

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to maximum of the percentage mentioned in Schedule 'F' and those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form.

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

I/We undertake and confirm that eligible similar work(s) has/ have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then I/we shall be debarred for tendering in IIT, Kanpur 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 therefrom 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 _____ ** _____

Witness: **
Address: **
Occupation: **

**
Signature of contractor
Postal Address **

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Operative schedules shall be supplied separately to each intending tenderer)

SCHEDULE 'A'

Schedule of Quantities:

Uploaded separately

SCHEDULE 'B'

Schedule of materials to be issued to the contractor:

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

SCHEDULE 'C'

Schedule of Tools and Plants to be hired to the contractor

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

SCHEDULE 'D'

Extra schedule for specific requirements/document for the work, if any: **As attached in tender form.**

SCHEDULE 'E'

Schedule of component of other Materials, Labour, POL etc. for price escalation : **N.A.**

SCHEDULE 'F'

Reference to General Conditions of contract.

Name of Work:	Carrying out maintenance & minor civil works in residences and community buildings on south side of main drive (Part-II)		
Estimated cost of the work:			Rs. 76,46,958.00
Earnest money			Rs. 1,52,939.00
Performance Guarantee	5% of the tendered value of the work		
Security Deposit	5% of the tendered value of the work		

General rules and direction :

12

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Officer inviting tender

**Superintending Engineer,
Institute Works Department
IIT, Kanpur**

Definitions:

2(v) **Engineer-in-Charge**

For Civil items of work

**Executive Engineer,
IWD, IIT, Kanpur**

2(vi) Accepting Authority

**Superintending Engineer,
IWD, IIT, Kanpur**

2(vii) Percentage on cost of materials and labour to cover all overheads and profits

10%

2(viii)

Standard Schedule of Rates:
Civil Items of Work:

D.S.R. 2018 – (minus)
GST component with upto
date correction Slips

2(ix)

Department:

Central Public Works
Department

2(x)

Standard CPWD contract Form:

GCC 2014, CPWD **form-7**
as modified & corrected
up to **31.07.2019**
(Whether correction vide
latest circulars are in
corporate or not in this
document.

Clause 1

i) Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance

15 Days

ii) Maximum allowable extension with late fee @0.1% per day of performance guarantee amount beyond the period as provided in i) above

1 to 15 Days

Clause 2

Authority for fixing Compensation under Clause 2

**Superintending Engineer,
IWD, IIT, Kanpur.
Or successor thereof**

Clause 2 A

Whether Clause 2A shall be applicable

No

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Clause 5	i) Number of days from the date of issue of letter of acceptance for reckoning date of start ii) Time allowed for execution of work	22 Days 12 Months
Authority to decide	Extension of time	Superintending Engineer, IWD, IIT, Kanpur
Clause 6/ 6A		Only clause 6 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.	Rs. 38.00 Lacs
Clause 10B (ii), (iii)	Whether clause 10-B (ii) and 10-B (iii) shall be applicable.	Not Applicable
Clause 10 C	Component of labour expressed as percentage of value of work (25%)	Not Applicable
Clause 10 CA		Not Applicable
Clause 10CC		Not Applicable

Clause 11 Specification to be followed for execution of work:

For Civil items of work

CPWD Specifications 2009 Vol. 1 and Vol. 2 with up to date correction slips.(Hereinafter called CPWD specifications also)

Clause 16 Competent Authority for Deciding reduced rates:

For Civil items of work

Superintending Engineer, IWD, IIT, Kanpur

For supervision of civil as well as electrical items of work, technical representatives (Diploma holder) of the respective disciplines will be required to be deployed.

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ADDITIONAL TERMS & CONDITIONS

The tenderer is advised to read and examine the tender documents for the work and the set of drawings available with Engineer-in-charge. He should inspect and examine the site and its surroundings by himself before submitting his tender.

1. Unless otherwise provided in the Schedule of Quantities/Specifications, the rates tendered by the contractor shall be all inclusive and shall apply to all heights, lifts, leads and depths of the work and nothing extra shall be payable to him on account of the same. Extra payment for centering/shuttering, if required to be done for heights greater than 3.5 m shall however be admissible at the rates arrived at in accordance with clause 12 of the agreement, if not already specified.
2. Other agencies doing works related with this project may also simultaneously execute their works and the contractor shall afford necessary facilities for the same. The contractor shall leave such necessary holes, openings etc. for laying/burying in the work, pipes cables, conduits, clamps, boxes and hooks for fan clamps etc. as may be required for the other agencies. Nothing extra over the Agreement rates shall be paid for doing these.
3. The rates for all items of work shall unless clearly specialized otherwise include cost of all labour, material tools and plants and other inputs involved in the execution of the item. The contractor (s) shall quote all inclusive rates against the items in the schedule of quantities and nothing extra shall be payable for any of the conditions and specifications mentioned. In the tender documents unless specifically specified otherwise.
4. The building work shall be carried out in the manner complying in all respects with the requirements of the relevant bylaws and regulations of the local body under the jurisdiction of which the work is to be executed or as directed by the Engineer-in-charge and nothing extra shall be paid on this account.
5. Huts for labour are not to be erected at the site of work, the contractor shall be required to provide such accommodation at a place as is acceptable to the local body and nothing extra shall be paid on this account.
6. The structural and architectural drawings shall at all times be properly co-related before executing any work. However, in case of any discrepancy in the item given in the schedule of quantities appended with the tender and Architectural drawings relating to the relevant item, the former shall prevail unless otherwise given in writing by the Engineer-in-charge.

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7. The contractor shall take instructions from the Engineer-in-charge for stacking of materials. No excavated earth or building materials etc. shall be stacked / collected in areas where other buildings, roads, services, compound walls etc. are to be constructed.
8. Any trenching and digging for laying sewer lines/water lines/cables etc. shall be commenced by the contractor only when all men, machinery"s and materials have been arranged and closing of the trench(s) thereafter shall be ensured within the least possible time.
9. It shall be ensured by the contractor that no electric live wire is left exposed or unattended to avoid any accidents in this regard.
10. In case the supply of timber/steel frames/shutters for doors, windows etc. is made by some other agency, the contractor shall make necessary arrangements for their safe custody on the direction of the Engineer-in-charge till the same are fixed in position by him & nothing extra shall be paid on this account.
11. The contractor shall maintain in perfect condition, all portions executed till completion of the entire work allotted to him. Where however phased delivery of work is contemplated these provisions shall apply separately to each phase.
12. The entire royalty at the prevalent rates shall have to be paid by the contractor on all the boulders, metals, shingle sand etc. collected by him for execution of the work, directly to the Revenue authority or authorized agents of the State Government concerned or the Central Government, as the case may be.
13. The contractor shall bear all incidental charges for cartage, storage and safe custody of materials issued by the departments and shall construct suitable godowns, yards at the site of work for storing all materials as to be safe against damage by sun, rain, dampness, fire, theft etc. at his own cost and also employ necessary watch and ward establishment for the purpose, at his own cost. Materials to be charged directly to work and stipulated for issue free of cost shall also be issued to the contractor as soon as those are received at site or at the stipulated place of issue. The provision of this para shall apply equally and fully to those as well.
14. Registers for the materials to be issued by the department shall be maintained as required by the Engineer-in-charge and these shall be signed by the contractor or his authorized agent and representative of Engineer-in-charge on each day of transactions.

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INSERTION (I)	NIL	
DELETION (D)	NIL	



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15. Temporary Electric connection shall be issued as per request and the water charges shall be recovered as per rule.
16. The contractor shall procure all the materials in advance so that there is sufficient time to testing and approving of the materials and clearance of the same before use in work.
17. Contractor shall have to brought at least 50% quantity of total premium acrylic smooth exterior silicon additives paint and water proofing cement paint and shall deposit it in the custody of concerned site Engineer before start of work. The consumption shall be monitored by the Department. All empty drums shall have to be kept till completion of work.
18. Contractor has to make a sample of exterior painting on the surface of wall and after getting approval from the competent authority, he has to finish the rest of work accordingly as per satisfaction of Engineer-in- charge.
19. The tenderer shall see the approaches to the site. In case any approach from main road is required by the contractor, the same shall be provided, improved and maintained by the contractor at his own cost. No payment shall be made on this account.
20. The contractor shall take all precautions to avoid accidents by exhibiting necessary caution boards day and night speed limit boards red flags, red lights and providing barriers. He shall be responsible for all dangers and incidents caused to existing / new work due to negligence on his part. No hindrances shall be caused to traffic during the execution of the work.
21. The contractor shall provide at his own cost suitable weighing surveying and leveling and measuring arrangements as may be necessary at site for checking. All such equipments shall be got calibrated in advance from laboratory, approved by the Engineer-in-Charge. Nothing extra shall be payable on this account.
22. On completion of work, the contractor shall submit at his own cost four prints of "as built" drawings to the Engineer-in-Charge with in 30 days of completion of work. These drawings shall have the following information:
 - a) Run of all piping and their diameters including soil waste pipes & vertical stacks.
 - b) Ground and invert levels of all drainage pipes together with locations of all manholes and connections upto outfall.
 - c) Run of all water supply lines with diameters, location of control valves, access panels etc.

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



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If above said drawings are not submitted by the contractor with in the above specified time then final bill will not be paid and Security Deposit shall not be released.

23. Any cement slurry added over base surface for continuation of concreting for better bond is deemed to have been built in the items and nothing extra shall be payable for extra cement considered in consumption on this account.
24. The contractor shall bear all incidental charges for cartage, storage and safe custody of materials issued by department.
25. The works shall be carried out in accordance with the Architectural drawings and structural drawings, to be issued from time to time by the Engineer-in-Charge. Before commencement of any item of work, the contractor shall correlate all the relevant architectural and structural drawings issued for the work and satisfy himself that the information available there of is complete and unambiguous. The discrepancy, if any shall be brought to the notice of the Engineer-in-Charge before execution of the work. The contractor alone shall be responsible for any loss or damage executing by the commencement of work on the basis of any erroneous and or incomplete information.
26. Other agencies will also simultaneously execute and install the works of electrification, air conditioning, lifts, fire-fighting etc. for this work and the contractor shall provide necessary facilities for the same. The contractor shall leave such recesses, holes openings etc. as may be required for the electric, air-conditioning and other related works (for which inserts, sleeves, brackets, conduits base pinion, clamps etc. shall be supplied free of cost by the department unless otherwise specifically mentioned) and the contractor shall fix the same at time of casting of concrete, stone work & brick work, if required and nothing extra shall be payable on this account.
27. The contractor shall conduct work so as not to interfere with or hinder the progress or completion of the work being performed by other contractor(s) or by the Engineer-in-Charge and shall as far as possible arrange his work and shall place and dispose off the materials being used or removed so as not to interfere with the operations of other contractor or he shall arrange his work with that of the others in an acceptable and coordinated manner and shall perform it in proper sequence to the complete satisfaction of others.
28. All Architectural drawings given in the tender other than those indicated in nomenclature of items are only indicative of the nature of the work and materials/fixings involved unless and otherwise specifically mentioned. However,

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



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the work shall be executed in accordance with the drawings duly approved by the Engineer-in-Charge.

29. Existing drains, pipes, cables, over-head wires, sewer lines, water lines and similar services encountered in the course of the execution of work shall be protected against the damage by the contractor at his own expense. The contractor shall not store materials or otherwise occupy any part of the site in a manner likely to hinder the operation of such services.
30. The contractor shall be responsible for the watch and ward/guard of the buildings, safety of all fittings and fixtures including sanitary and water supply fittings and fixtures provided by him against pilferage and breakage during the period of installations and thereafter till the building is physically handed over to the department. No extra payment shall be made on this account.
31. The contractor shall be fully responsible for the safe custody of materials brought by him issued to him even though the materials are under double lock key system.
32. The rate of items of flooring is inclusive of providing sunk flooring at bath rooms kitchen etc. and nothing extra on this accounts is admissible.
33. No payment shall be made to the contractor for any damage caused by rain, snowfall, floods, earthquake or any other natural causes whatsoever during execution of work. The damages of the work will be made good by the contractor at his own cost and no claim on this account shall be entertained.
34. For construction works which are likely to generate malba/rubbish to the tune of more than a tempo/truck load, contractor shall dispose of malba, rubbish & other unserviceable materials and wastes at their own cost to the notified/specified dumping ground and under no circumstances these shall be stacked/dumped, even temporarily outside the construction premises.
35. The Plinth Level of Building is to be kept as per Architectural drawings. All the items of works such as PCC, RCC, Brickwork and shuttering etc. in foundation upto this plinth level with be measured and paid as the work done upto plinth level. Nothing extra due to higher plinth will be paid and contractors rates quoted for all these items shall, therefore, be deemed to cater for extra height of plinth.
36. The contractor has to follow all safety norms as laid down in National Building Code of India. All the workers shall be equipped with the required safety

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



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gadgets while working at site such as ISI marked helmets, Shoes and safety belts, gumboots, gloves etc.

37. The proposed building is a prestigious project and quality of work is paramount importance. Contractor shall have to engage well experienced skilled labour and deploy modern T&P and other equipment to execute the work. Many items like stone masonry & stone cladding works, stone flooring, structural glazing, PVDF coating aluminium composite panel and other specialized flooring work, Wood work will specially require engagement of skilled workers having experience particularly in execution of such items.
38. Samples of all materials and fittings to be used in the work in respect of brand manufacturer and quality shall be got approved from the Engineer-in-Charge, well in advance of actual execution and shall be preserved till the completion of the work. Articles bearing BIS certifications mark shall only be used unless no manufacturer has got BIS mark for the particular material. Any material/fitting whose sample has not been approved in advance and any other unapproved material brought by the contractor shall be immediately removed as soon as directed.
39. Unless otherwise specified in the schedule of quantities the rates for all items shall be considered as inclusive of pumping/baling out water, if necessary, for which no extra payment shall be made. Those conditions shall be considered to include water from any source such as inflow of flood, surface and sub-soil water etc. and shall apply to the execution in any season.
40. The rate for all items in which the use of cement is involved is inclusive of charges for curing.
41. Being an individual work contract no other tax is payable other than GST.
42. The quoted rates shall be for all surfaces including the plan brick work faced with recessed, raised or struck pointing, no extra claim on this account shall be considered.
43. No over loaded trucks of the construction material (coarse sand, stone grit and stone ballast) are allowed to enter in the residential area. The contractor have to make arrangement to get collected the construction material at store or at appropriate place near the work site and from that place the material may be carried through the tractor & trolley only.

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INSERTION (I)	NIL	
DELETION (D)	NIL	



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IWD/D1

To be signed by the bidder and authorized signatory on behalf of IIT Kanpur

INTEGRITY AGREEMENT

This Integrity Agreement is made at _____ on this _____ day of 2019.

BETWEEN

The Director IIT Kanpur represented through the Superintending Engineer, **IWD, IIT, KANPUR** (hereinafter referred as the 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. **09/C/D1/2019-20/01** (hereafter referred to as "Tender / Bid") and intends to award, under laid down Organization procedure, contract for: **Carrying out maintenance & minor civil works in residences and community buildings on south side of main drive (Part-II)**

Here in after 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 condition 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

21

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



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- 1) The principal/Owner commits itself to take all measure 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 of 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.

- 1) 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) commit himself to take 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:

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



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- 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 as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 - d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and address of agents representatives in India, if any. Similarly Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and address of foreign agents representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign or principal directly could bid in a tender but not both. Further in cases where an agent participate in a tender on behalf of one manufacture, he shall not be allowed to quote on behalf of another manufacture along with the first manufacture 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 Bidders(s)/Contractor(s) will not instigate third person to commit offences outlined above or be an accessory to such offences.

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



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- 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 principle/Owner under law or the Contract or its established policies and laid down procedures, the Principle/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 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 contract, award process. 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

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



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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 constitute 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 transgression 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 dealing 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 subcontractor’s 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.

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



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Article 6 : Duration of the Pact

This Pact begins when both the parties have legally signed it. It expires for the Contract/Vendor 12 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other 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, IIT Kanpur.

Article 7 : Other Provision

- 1) This Pact is subject to Indian law, place of performance and jurisdiction is the Head quarters of the division of the Principal/Owner, who 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 intension.
- 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 right 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

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



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Indian Institute of Technology Kanpur

IWD/D1

legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contract documents with regard any of the provision 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 presences of following witness:

.....
(For and behalf of Principle/Owner)

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

WITNESSES:

1.
(Signature, name and address)

2.
(Signature, name and address)

Place:

Dated:

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



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BANK GUARANTEE BOND

In consideration of the Board of Governors of IIT Kanpur (hereinafter called "the Government") having agreed under the terms and conditions of agreement No. _____ dated _____ made between _____ and _____ (hereinafter called "the contractor(s)") _____ for the work _____ (hereinafter called "the said agreement") having agreed to production of a irrevocable Bank Guarantee for Rs. _____ (Rupees _____ only) as a security/guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement, we

(hereinafter referred to as "the Bank") hereby undertake to pay to the

(Indicate the name of the Bank)

Government an amount not exceeding Rs. _____ (Rs. _____ only) on demand by the Government.

2. We _____ do hereby undertake to pay the amounts due and payable

(Indicate the name of the Bank)

under this Guarantee without any demure, merely on a demand from the Government stating that the amount claimed is required to meet the recoveries due or likely to be due from the said contractor(s). Any such demand made on the bank shall be conclusive as regards the amount due and payable by the bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. _____ (Rupees _____ only).

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

Indian Institute of Technology Kanpur

IWD/D1

thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

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

7. We _____ lastly undertake not to revoke this guarantee except with _____

(Indicate the name of the Bank)

the previous consent of the Government in writing.

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

Dated the _____ day of _____

for

(Indicate the name of the Bank)

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



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GUARANTEE BOND TO BE EXECUTED BY CONTRACTORS FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WATER PROOFING WORKS

The Agreement made thisday of two thousand and between..... son of of (hereinafter called the Guarantor of the one part) and the Board of Governors, IIT Kanpur (hereinafter called Government of the other part).

WHEREAS this agreement is supplementary to a contract (hereinafter called the Contract) dated..... and made between the GUARANTOR of the one part and the Government 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 GUARANTOR agreed to give a guarantee to the effect that the said structures will remain water and leak-proof for five years from the date of giving of water proofing treatment.

NOW THE GUARANTOR hereby guarantees that water proofing treatment given by him will render the structures completely leak-proof and the minimum life of such water proofing treatment shall be **ten years** to be reckoned from the date after the maintenance period prescribed in the contract.

Provided that the guarantor will not be responsible for leakage caused by earthquake or structural defects or misuse of roof or alteration and for such purpose:

(a) Misuse of roof shall mean any operation which will damage proofing treatment, like chopping of firewood and things of the same nature which might cause damage to the roof;

(b) Alteration shall mean construction of an additional storey or a part of the roof or Construction adjoining to existing roof whereby proofing treatment is removed in parts;

(c) The decision of the Engineer-in-Charge with regard to cause of leakage shall be final. During this period of guarantee the guarantor shall make good all defects and in case of any defect being found, render the building water-proof to the satisfaction of the Engineer-in-Charge at his cost, and shall commence the work for such rectification within seven days from the date of issue of the 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. The decision of the Engineer-in-Charge as to the cost, payable by the Guarantor shall be final and binding.

That if GUARANTOR fails to execute the water proofing or commits breach there under then the GUARANTOR will indemnify the 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 supplementary agreement. As to the

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

Indian Institute of Technology Kanpur

IWD/D1

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 these presents have been executed by the Obligorand by..... and for and on behalf of the Board of Governors, IIT Kanpur on the day, month and year first above written.

Signed, sealed and delivered by OBLIGOR in the presence of—

- 1.
- 2.

Signed for and on behalf of THE Board of Governors, IIT Kanpur by

In the presence of—

- 1.
- 2.

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



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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 into (Name and on 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,

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

Table with 3 columns: Correction/Insertion/Deletion (C/I/D), Status (NIL), and Signature (Sr. AE (SG) E.E.)



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Indian Institute of Technology Kanpur

IWD/D1

(SIGNATURE, NAME AND ADDRESS)

*Date to be worked out on the basis of validity period of 4 months from last date of receipt of tender.

- Note - The Bank Guarantee shall be in favour of the Director, IIT Kanpur.

34

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



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Bill of Quantity

Name of Work: Carrying out maintenance & minor Civil works of 80 nos. Type-IA house, 88 nos. Type-IB house, 192 nos. Type-I house, 216 nos. SBRA house, 20 nos. Type-V house (501 to 520), 94 nos. Faculty apartment house, New RA Tower, Hall of Residence for Boys No. 13, New shopping complex, Community sports complex, swimming pool, lawn Tennis court, P.E section, Security Section and area electrical substations & community building on South side of main drive (Part- II) at IIT Kanpur

Contract No: 09/C/D1/2019-20/01

Table with 6 columns: SLNo, Description, Qty, Unit, Rate without GST, Amount. Rows include EARTH WORK, 1.1 Earth work in surface excavation, 1.1.1 All kinds of soil, 1.2 Earth work in excavation by mechanical means, 1.2.1 All kinds of soil, 1.3 Excavating trenches of required width for pipes, cables, etc.

Table with 3 columns: CORRECTION (C), INSERTION (I), DELETION (D) and Sr. AE (SG) E.E.



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1.3.1	All kinds of soil				
1.3.1.1	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	100	metre	319.33	31933.36
1.4	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	20	cum	192.59	3851.82
1.5	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.	10	cum	1712.45	17124.51
1.6	Surface dressing of the ground including removing vegetation and in-equalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m.				
1.6.1	All kinds of soil	200	sqm	21.35	4270.06
1.7	Excavating holes more than 0.10 cum & upto 0.5 cum including getting out the excavated soil, then returning the soil as required in layers not exceeding 20cm in depth, including consolidating each deposited layer by ramming, watering etc, disposing of surplus excavated soil, as directed within a lead of 50 m and lift upto 1.5 m.				
1.7.1	All kinds of soil	100	each	69.53	6953.09
1.8	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared.	100	sqm	11.00	1100.39
2	CONCRETE WORK				
2.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
2.1.1	1:2:4 (1 cement : 2 coarse sand (zone-III) derived from natural sources: 4 graded stone aggregate 20 mm nominal size derived from natural sources).	5	cum	5952.30	29761.51

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

2.2	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor etc., up to floor five level, excluding the cost of centering, shuttering and finishing :				
2.2.1	1:2:4 (1 Cement : 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 20 mm nominal size derived from natural sources)	1	cum	7500.66	7500.66
2.3	Centering and shuttering including strutting, propping etc. and removal of form work for :				
2.3.1	Foundations, footings, bases for columns	10	sqm	249.76	2497.59
2.4	Providing and laying cement concrete in kerbs, steps and the like at or near ground level excluding the cost of centering, shuttering and finishing.				
2.4.1	1:1½:3 (1 Cement: 1½ coarse sand (zone-III) derived from natural sources: 3 graded stone aggregate 20 mm nominal size derived from natural sources)	1	cum	6322.27	6322.27
2.5	Providing and fixing at or near ground level precast cement concrete in kerbs, edgings etc. as per approved pattern and setting in position with cement mortar 1:3 (1 Cement : 3 coarse sand), including the cost of required centering, shuttering complete.				
2.5.1	1:1½:3 (1 Cement: 1½ coarse sand(zone-III) derived from natural sources: 3 graded stone aggregate 20 mm nominal size derived from natural sources).	1	cum	6605.74	6605.74
2.6	Providing and laying damp-proof course 40mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand derived from natural sources): 4 graded stone aggregate 12.5mm nominal size derived from natural sources)	10	sqm	305.04	3050.42
2.7	Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification.	5	per 50kg cement	49.58	247.92

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

2.8	Providing & applying a coat of residual petroleum bitumen of grade of VG-10 of approved quality using 1.7kg per square metre on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	10	sqm	96.45	964.49
2.9	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand derived from natural sources : 6 graded stone aggregate 20 mm nominal size derived from natural sources) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including necessary excavation, levelling & dressing & finishing the top smooth.	100	sqm	538.40	53840.42
3	REINFORCED CEMENT CONCRETE				
3.1	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement- All work up to plinth level :				
3.1.1	1:1.5:3 (1 cement: 1.5 coarse sand (zone-III) derived from natural sources: 3 graded stone aggregate 20 mm nominal size derived from natural sources).	5	cum	6767.43	33837.13
3.1.2	1:2:4 (1 cement : 2 coarse sand (zone-III) derived from natural sources: 4 graded stone aggregate 20 mm nominal size derived from natural sources).	5	cum	6397.50	31987.51
3.2	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement				
3.2.1	1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).	1	cum	8159.58	8159.58

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

3.3	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement, with 1:1.5:3 (1 cement: 1.5 coarse sand (zone-III) derived from natural sources: 3 graded stone aggregate 20 mm nominal size derived from natural sources).	1	cum	8560.98	8560.98
3.4	Centering and shuttering including strutting, propping etc. and removal of form for				
3.4.1	Suspended floors, roofs, landings, balconies and access platform	5	sqm	607.67	3038.36
3.4.2	Shelves (Cast in situ)	15	sqm	607.67	9115.08
3.4.3	Lintels, beams, plinth beams, girders, bressumers and cantilevers	15	sqm	484.04	7260.63
3.4.4	Columns, Pillars, Piers, Abutments, Posts and Struts	10	sqm	643.31	6433.14
3.4.5	Stairs, (excluding landings) except spiral-staircases	5	sqm	545.68	2728.41
3.4.6	Edges of slabs and breaks in floors and walls				
3.4.6.1	Under 20 cm wide	10	metre	151.91	1519.07
3.5	Providing, hoisting and fixing up to floor five level precast reinforced cement concrete in small lintels not exceeding 1.5m clear span up to floor five level, including the cost of required centering, shuttering but , excluding the cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).	5	cum	10928.76	54643.80
3.6	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.				
3.6.1	Thermo-Mechanically Treated bars of grade Fe-500D or more.	1000	kg	73.21	73213.50
3.7	Providing and fixing sheet covering over expansion joints with iron screws as per design.				
3.7.1	Aluminium fluted strips 3.15 mm thick.				

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
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IITK

3.7.1.1	150 mm wide	5	metre	432.62	2163.09
3.8	Add for plaster drip course/ groove in plastered surface or moulding to R.C.C. projections.	10	metre	51.64	516.44
4	MASONRY WORK				
4.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:				
4.1.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	10	cum	5398.90	53989.04
4.2	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in :				
4.2.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	10	cum	6655.37	66553.70
4.3	Brick work 7 cm thick with common burnt clay F.P.S. (non modular) brick of class designation 7.5 in cement mortar 1:3 (1 cement : 3 coarse sand) in superstructure above plinth level and upto floor five level.	5	sqm	657.39	3286.94
4.4	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundations and plinth in :				
4.4.1	cement mortar 1:4 (1 cement : 4 coarse sand)	10	sqm	678.43	6784.31
4.5	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.				
4.5.1	Cement mortar 1:4 (1 cement :4 coarse sand)	20	sqm	817.27	16345.46
4.6	Brick work with common burnt clay selected F.P.S. (non modular) bricks of class designation 7.5 in exposed brick work including making horizontal and vertical grooves 10 mm wide 12 mm deep complete in cement mortar 1:6 (1 cement : 6 coarse sand)				
4.6.1	From ground level upto plinth level	1	cum	5545.20	5545.20
4.6.2	Above plinth level upto floor V level	5	cum	6867.16	34335.82
4.7	Brick edging 7cm wide 11.4 cm deep to plinth protection with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 including grouting with cement mortar 1:4 (1 cement : 4 fine sand).	100	metre	45.59	4559.40

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

5	CLADDING WORK				
5.1	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.				
5.1.1	Raj Nagar Plain white marble/ Udaipur green marble/ Zebra black marble				
5.1.1.1	Area of slab over 0.50 sqm	10	sqm	2238.19	22381.85
5.1.2	Granite of any colour and shade				
5.1.2.1	Area of slab over 0.50 sqm	10	sqm	3513.94	35139.41
5.2	Providing edge moulding to 18 mm thick marble stone counters, Vanities etc., including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge.				
5.2.1	Marble work	10	metre	193.20	1932.05
5.2.2	Granite work	10	metre	329.90	3298.99
5.3	Extra for providing opening of required size & shape for wash basin/ kitchen sink in kitchen platform, vanity counter and similar location in marble/ Granite/ stone work, including necessary holes for pillar taps etc. including moulding, rubbing and polishing of cut edges etc. complete.	5	each	644.06	3220.30
5.4	Mirror polishing on marble work/Granite work/stone work where ever required to give high gloss finish complete.	5	sqm	322.67	1613.33

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

5.5	Providing and fixing stone slab with table rubbed, edges rounded and polished, of size 75x50 cm deep and 1.8 cm thick, fixed in urinal partitions by cutting a chase of appropriate width with chase cutter and embedding the stone in the chase with epoxy grout or with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 6 mm nominal size) as per direction of Engineer-in-charge and finished smooth.				
5.5.1	White Agaria Marble Stone	1	sqm	2820.60	2820.60
5.5.2	Granite Stone of approved shade	1	sqm	2820.60	2820.60
5.6	Providing and fixing skirting with Pre-laminated (one side decorative and other side balancing lamination) flat pressed 3 layer or graded particle board (medium density) Grade I, Type II, IS :12823 marked, with necessary fixing arrangements and screws, including drilling necessary holes for rawl plugs etc. and priming coat on unexposed surface complete :				
5.6.1	18 mm thick	2	sqm	1658.48	3316.97
5.7	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.	150	sqm	903.38	135506.36
6	WOOD AND PVC WORK				
6.1	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately).				
6.1.1	Second class teak wood	1	cum	114145.59	114145.59
6.1.2	Sal wood	3	cum	92351.78	277055.33

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

6.2	Providing and fixing panelled or panelled and glazed shutters for doors, windows and clerestory windows, including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws, excluding panelling which will be paid for separately, all complete as per direction of Engineer-in-charge. (Note:- Butt hinges and necessary screws shall be paid separately)				
6.2.1	Second class teak wood				
6.2.1.1	35 mm thick shutters	1	sqm	3168.22	3168.22
6.3	Providing and fixing panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling for panelled or panelled and glazed shutters 25 mm to 40 mm thick :				
6.3.1	Second class teak wood	1	sqm	2579.83	2579.83
6.3.2	Float glass panes				
6.3.2.1	4 mm thick glass pane (weight not less than 10kg/sqm).	5	sqm	1571.72	7858.61
6.3.3	Fly proof stainless steel grade 304 wire gauge with 0.5 mm dia. wire and 1.4mm wide aperture with matching wood beading	10	sqm	1278.91	12789.13
6.4	Providing and fixing glazed shutters for doors, windows and clerestory windows using 4 mm thick float glass panes, including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws.				
6.4.1	Second class teak wood				
6.4.1.1	35 mm thick	25	sqm	3817.40	95435.12
6.5	Extra for providing frosted glass panes 4 mm thick instead of ordinary float glass panes 4 mm thick in doors, windows and clerestory window shutters. (Area of opening for glass panes excluding portion inside rebate shall be measured).	10	sqm	187.68	1876.81

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

6.6	Providing and fixing Pre-laminated flat pressed 3 layer (medium density) particle board or graded wood particle board IS : 3087 marked, with one side decorative and other side balancing lamination Grade I, Type II exterior grade IS : 12823 marked, in shelves with screws and fittings wherever required, edges to be painted with polyurethane primer (fittings to be paid separately).				
6.6.1	18 mm thick	5	sqm	1046.21	5231.04
6.7	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters:				
6.7.1	25 mm thick (for cupboard) including ISI marked nickel plated bright finished M.S. piano hinges with necessary screws	10	sqm	1562.78	15627.79
6.8	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of flush door shutters (over all area of door shutter to be measured).	5	sqm	351.95	1759.75
6.9	Extra for providing vision panel not exceeding 0.1 sqm in all type of flush doors (cost of glass excluded) (overall area of door shutter to be measured):				
6.9.1	Rectangular or square	2	sqm	152.52	305.04
6.1	Extra for cutting rebate in flush door shutters (Total area of the shutter to be measured).	5	sqm	82.11	410.57
6.11	Providing and fixing wire gauge shutters using galvanized M.S. wire gauge of average width of aperture 1.4 mm in both directions with wire of dia 0.63 mm, for doors, windows and clerestory windows with hinges and necessary screws :				
6.11.1	35 mm thick shutters				
6.11.1.1	with ISI marked M.S. pressed butt hinges bright finished of required size				
6.11.1.1.1	Second class teak wood	5	sqm	3701.18	18505.92

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

6.12	Providing and fixing wooden moulded beading to door and window frames with iron screws, plugs and priming coat on unexposed surface etc. complete :				
6.12.1	2nd class teak wood				
6.12.1.1	50x12 mm	5	metre	161.86	809.29
6.12.1.2	50 x 20 mm	5	metre	203.55	1017.76
6.13	Providing and fixing chromium plated brass curtain rod having wall thickness of 1.25mm with two chromium plated brass brackets fixed with C.P. brass screws and PVC sleeves etc., wherever necessary complete :				
6.13.1	20 mm dia	5	metre	327.18	1635.91
6.14	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.				
6.14.1	Fixed to steel windows by welding	100	kg	144.94	14493.64
6.14.2	Fixed to openings /wooden frames with rawl plugs screws etc.	100	kg	160.89	16089.43
6.15	Providing and fixing hard drawn steel wire fabric 75x25 mm mesh of weight not less than 7.75 Kg per sqm to window frames etc. including 62x19 mm beading of second class teak wood and priming coat with approved steel primer all complete.	100	sqm	1269.93	126992.55
6.16	Providing and fixing fly proof galvanized M.S. wire gauge to windows and clerestory windows using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia 0.63 mm all complete.				
6.16.1	With 2nd class teak wood beading 62X19 mm	10	sqm	993.73	9937.31
6.16.2	With 12 mm mild steel U beading	10	sqm	685.01	6850.07
6.17	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embedding in cement concrete block 30x10x15cm 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size).	50	each	157.12	7856.20

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

6.18	Providing and fixing ISI marked M.S. pressed butt hinges bright finished with necessary screws etc. complete :				
6.18.1	125x65x2.12 mm	5	each	40.55	202.76
6.18.2	100x58x1.90 mm	5	each	32.70	163.52
6.19	Providing and fixing ISI marked oxidised M.S. sliding door bolts with nuts and screws etc. complete :				
6.19.1	300x16 mm	10	each	160.72	1607.19
6.19.2	250x16 mm	20	each	149.06	2981.15
6.2	Providing and fixing ISI marked oxidised M.S. tower bolt black finish, (Barrel type) with necessary screws etc. complete :				
6.20.1	250x10 mm	20	each	65.02	1300.31
6.20.2	200x10 mm	20	each	53.09	1061.81
6.20.3	150x10 mm	20	each	46.08	921.53
6.20.4	100x10 mm	20	each	33.93	678.65
6.21	Providing and fixing ISI marked oxidised M.S. handles conforming to IS:4992 with necessary screws etc. complete :				
6.21.1	125 mm	20	each	30.56	611.14
6.21.2	100 mm	20	each	24.51	490.14
6.21.3	75 mm	10	each	20.96	209.56
6.22	Providing and fixing oxidised M.S. hasp and staple (safety type) conforming to IS : 363 with necessary screws etc. complete :				
6.22.1	150 mm	5	each	25.21	126.04
6.22.2	115 mm	5	each	22.45	112.23
6.23	Providing and fixing oxidised M.S. casement stays (straight peg type) with necessary screws etc. complete.				
6.23.1	300 mm weighing not less than 200 gms	10	each	51.56	515.56
6.23.2	250 mm weighing not less than 150 gms	10	each	45.07	450.68
6.24	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete :				
6.24.1	250x10 mm	5	each	327.62	1638.10

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

6.25	Providing and fixing bright finished brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles of approved quality with necessary screws etc. complete.	5	each	624.95	3124.73
6.26	Providing and fixing bright finished brass 100 mm mortice latch with one dead bolt and a pair of lever handles of approved quality with necessary screws etc. complete.	2	each	519.38	1038.75
6.27	Providing and fixing special quality bright finished brass cupboard or ward robe locks with four levers of approved quality including necessary screws etc. complete.				
6.27.1	40 mm	2	each	220.25	440.51
6.28	Providing and fixing bright finished brass handles with screws etc. complete:				
6.28.1	125 mm	5	each	179.44	897.19
6.29	Providing and fixing bright finished brass hanging type floor door stopper with necessary screws, etc. complete.	50	each	93.56	4677.77
6.3	Providing and fixing aluminium die cast body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 35 kg and door width upto 700 mm), with necessary accessories and screws etc. complete.	25	each	879.88	21996.93
6.31	Providing and fixing aluminium sliding door bolts, ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868), transparent or dyed to required colour or shade, with nuts and screws etc. complete :				
6.31.1	250x16 mm	5	each	203.16	1015.78
6.32	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 :				
6.32.1	250x10 mm	10	each	90.79	907.94
6.32.2	200x10 mm	25	each	78.91	1972.82
6.32.3	150x10 mm	25	each	65.76	1644.02

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

6.32.4	100x10 mm	25	each	50.99	1274.66
6.33	Providing and fixing aluminium handles, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade, with necessary screws etc. complete :				
6.33.1	125 mm	25	each	52.30	1307.54
6.33.2	100 mm	25	each	46.34	1158.48
6.34	Providing and fixing aluminium hanging floor door stopper, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade, with necessary screws etc. complete.				
6.34.1	Single rubber stopper	10	each	29.77	297.68
6.34.2	Twin rubber stopper	25	each	54.41	1360.15
6.35	Providing and fixing 2nd class teak wood lipping/ moulded beading or taj beading of size 18X5 mm fixed with wooden adhesive of approved quality and screws/nails on the edges of the Pre-laminated particle board as per direction of Engineer-in-charge.	5	metre	69.14	345.68
6.36	Providing and fixing magnetic catcher of approved quality in cupboard / ward robe shutters, including fixing with necessary screws etc. complete.				
6.36.1	Double strip (horizontal type)	25	each	27.22	680.62
6.37	Providing and fixing powder coated telescopic drawer channels 300 mm long with necessary screws etc. complete as per directions of Engineer-in-charge.	50	one set	297.90	14894.78

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

6.38	Providing and fixing factory made uPVC door frame made of uPVC extruded sections having an overall dimension as below (tolerance $\pm 1\text{mm}$), with wall thickness 2.0 mm (± 0.2 mm), corners of the door frame to be Jointed with galvanized brackets and stainless steel screws, joints mitred and Plastic welded. The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19 X 19 mm and 1mm (± 0.1 mm) wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturer's specification and direction of Engineer- in-charge				
6.38.1	Extruded section profile size 48x40 mm	100	metre	194.34	19434.46
6.39	Providing and fixing to existing door frames.				
6.39.1	24 mm thick factory made PVC door shutters made of styles and rails of a uPVC hollow section of size 59x24 mm and wall thickness 2 mm (± 0.2 mm) with inbuilt edging on both sides. The styles and rails mitred and joint at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 20x20 mm and 1 mm (± 0.1 mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x24 mm and 2 mm (± 0.2 mm) wall thickness, fixed to the shutter styles by means of plastic/galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm (± 0.1 mm) wall thickness. The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge. (For W.C. and bathroom door shutter).	30	sqm	1543.80	46313.90

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

6.4	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.				
6.40.1	1.0 mm thick	5	sqm	629.24	3146.21
6.41	Providing and fixing cup board shutters with 25 mm thick veneered particle board IS : 3097 marked, exterior grade (Grade I), of approved make, including IInd class teak wood lipping of 25 mm wide x 12 mm thick with necessary screws and bright finished stainless steel piano hinges, complete as per direction of Engineer-in-Charge.				
6.41.1	With decorative veneering on one side and commercial veneering on other side	5	sqm	1444.94	7224.68
6.42	Providing and fixing wire gauge shutters using stainless steel grade 304 wire gauge with wire of dia 0.5 mm and average width of aperture 1.4 mm in both directions for doors, windows and clerestory windows with necessary screws :				
6.42.1	35 mm thick shutters				
6.42.1.1	with ISI marked M.S. pressed butt hinges bright finished of required size				
6.42.1.1.1	Second class teak wood	25	sqm	3816.05	95401.14
6.43	Providing and fixing fly proof stainless steel grade 304 wire gauge, to windows and clerestory windows using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia. 0.50 mm all complete.				
6.43.1	With 2nd class teak wood beading 62X19 mm	10	sqm	1186.85	11868.48
6.43.2	With 12 mm mild steel U beading	10	sqm	878.12	8781.24
7	STEEL WORK				
7.1	Structural steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	50	kg	75.45	3772.47

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

7.2	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	50	kg	89.22	4460.76
7.3	Providing and fixing 1mm thick M.S. sheet door with frame of 40x40x6 mm angle iron and 3 mm M.S. gusset plates at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer.				
7.3.1	Using M.S. angels 40x40x6 mm for diagonal braces	10	sqm	3882.64	38826.39
7.4	Fixing standard steel glazed doors, windows and ventilators in walls, including fixing of float glass panes with glazing clips and special metal-sash putty of approved make, or metal beading with screws, (only steel windows, glass panes cut to size and glazing clips or metal beading with screws, shall be supplied by department free of cost.				
7.4.1	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	25	kg	55.24	1380.97
7.5	Providing and fixing factory made ISI marked steel glazed doors, windows and ventilators, side /top /centre hung, with beading and all members such as F7D,F4B, K11 B and K12 B etc. complete of standard rolled steel sections, joints mitred and flash butt welded and sash bars tenoned and riveted, including providing and fixing of hinges, pivots, including priming coat of approved steel primer, but excluding the cost of other fittings, complete all as per approved design, (sectional weight of only steel members shall be measured for payment).				
7.5.1	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)	50	kg	145.99	7299.43

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

7.6	Providing and fixing T-iron frames for doors, windows and ventilators of mild steel Tee-sections, joints mitred and welded, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer.				
7.6.1	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size).	50	kg	93.34	4666.81
7.7	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.				
7.7.1	Hot finished welded type tubes	25	kg	125.78	3144.45
7.8	Providing and fixing bolts including nuts and washers complete.	10	kg	112.63	1126.26
7.9	Welding by gas or electric plant including transportation of plant at site etc. complete.	5	cm	2.94	14.69
7.1	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.				
7.10.1	In stringers, treads, landings etc. of stair cases, including use of chequered plate wherever required, all complete	1000	kg	82.11	82113.11
7.10.2	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	100	kg	114.86	11486.19
7.11	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approved steel primer.				
7.11.1	M.S. tube	100	kg	127.71	12770.71
7.11.2	G.I. pipes	10	kg	138.54	1385.36

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INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

7.12	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.).	50	kg	504.56	25227.97
7.13	Providing & fixing fly proof wire gauze to windows, clerestory windows & doors with M.S. Flat 15x3 mm and nuts & bolts complete.				
7.13.1	Stainless steel (grade 304) wire gauze of 0.5 mm dia wire and 1.4 mm aperture on both sides	5	sqm	815.04	4075.19
7.14	Providing & fixing glass panes with putty and glazing clips in steel doors, windows, clerestory windows, all complete with :				
7.14.1	4.0 mm thick glass panes	5	sqm	789.61	3948.05
8	FLOORING				
8.1	Brick on edge flooring with bricks of class designation 7.5 on a bed of 12 mm cement mortar, including filling the joints with same mortar, with common burnt clay non modular bricks:				
8.1.1	1:6 (1cement : 6 coarse sand)	100	sqm	727.27	72726.87
8.2	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete.				
8.2.1	40 mm thick with 20 mm nominal size stone aggregate	100	sqm	436.96	43695.75
8.3	Cement plaster skirting up to 30 cm height, with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement.				
8.3.1	18 mm thick	20	sqm	456.95	9138.97

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IITK

8.4	Cement concrete pavement with 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including finishing complete.	1	cum	6431.48	6431.48
8.5	40 mm thick marble chips flooring, rubbed and polished to granolithic finish, under layer 31 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5 mm nominal size) and top layer 9 mm thick with white, black, chocolate, grey, yellow or green marble chips of sizes from 4 mm to 7 mm nominal size, laid in cement marble powder mix 3:1 (3 cement : 1 marble powder) by weight in proportion of 4:7 (4 cement marble powder : 7 marble chips) by volume, including cement slurry etc. complete.				
8.5.1	Medium shade pigment with 50% white cement and 50% ordinary cement	10	sqm	783.43	7834.28
8.6	Marble chips skirting up to 30 cm height, rubbed and polished to granolithic finish, top layer 6 mm thick with white, black, chocolate, grey, yellow or green marble chips of sizes from smallest to 4 mm nominal size, laid in cement marble powder mix 3:1 (3 cement : 1 marble powder) by weight in proportion of 4:7 (4 cement marble powder mix : 7 marble chips) by volume :				
8.6.1	18 mm thick with under layer 12 mm thick in cement plaster 1:3 (1 cement : 3 coarse sand) :				
8.6.1.1	Medium shade pigment with 50% white cement and 50% ordinary cement	10	sqm	1236.21	12362.12
8.7	Providing and fixing glass strips in joints of terrazo/ cement concrete floors.				
8.7.1	40 mm wide and 4 mm thick	100	metre	65.89	6589.22
8.8	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :				
8.8.1	25 mm thick	5	sqm	1343.14	6715.69

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IITK

8.9	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	5	sqm	1587.07	7935.34
8.1	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement : 4 Coarse sand), Jointing with grey cement slurry @ 3.3 kg/sqm including pointing the joints with white cement and matching pigment etc., complete.	100	sqm	812.71	81271.37
8.11	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joints with white cement and matching pigments etc., complete.				
8.11.1	Size of Tile 600x600 mm	5	sqm	1315.69	6578.47
8.12	Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joint with white cement & matching pigments etc. complete.				
8.12.1	Size of Tile 600x600 mm	5	sqm	1355.41	6777.07

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INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

8.13	Providing and laying Vitrified tiles in different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colours and shade, in skirting, riser of steps, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS: 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).				
8.13.1	Size of Tile 600x600 mm	5	sqm	1520.39	7601.93
8.14	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).				
8.14.1	Size of Tile 600x600 mm	5	sqm	1411.62	7058.09
9	ROOFING				
9.1	Providing corrugated G.S. sheet roofing including vertical / curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead, including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (up to any pitch in horizontal/ vertical or curved surfaces), excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.				
9.1.1	0.63 mm thick with zinc coating not less than 275 gm/ m ²	20	sqm	802.28	16045.59

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9.2	Providing ridges or hips of width 60 cm overall width plain G.S. sheet fixed with polymer coated J or L hooks, bolts and nuts 8 mm dia G.I. limpet and bitumen washers complete.				
9.2.1	0.63 mm thick with zinc coating not less than 275 gm/m ²	10	metre	622.67	6226.65
9.3	Extra for providing and fixing wind ties of 40x 6 mm flat iron section.	10	metre	132.49	1324.86
9.4	Providing and laying brick tiles over mumty roofs, grouted with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2% of integral water proofing compound by weight of cement, over 12 mm layer of cement mortar 1:3 (1 cement : 3 fine sand) and finished neat:				
9.4.1	With common burnt clay F.P.S. (non modular) brick tiles of class designation 10	5	sqm	451.03	2255.15
9.5	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10 mm and down gauge), including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design :				
9.5.1	In 75x75 mm deep chase	10	metre	208.02	2080.23
9.6	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement, rounding the edges and making and finishing the outlet complete.	5	each	213.99	1069.93
9.7	Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes.				
9.7.1	110 mm diameter	20	metre	267.47	5349.41

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IITK

9.8	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion.				
9.8.1	Single tee without door				
9.8.1.1	110x110x110 mm	5	each	165.32	826.61
9.8.2	Bend 87.5°				
9.8.2.1	110 mm bend	5	each	113.85	569.27
9.8.3	Shoe (Plain)				
9.8.3.1	110 mm Shoe	5	each	99.78	498.90
9.9	Providing and fixing unplasticised -PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length, including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete.				
9.9.1	110 mm	10	each	253.22	2532.22
10	FINISHING				
10.1	12 mm cement plaster of mix :				
10.1.1	1:6 (1 cement: 6 coarse sand)	150	sqm	231.08	34662.43
10.2	15 mm cement plaster on rough side of single or half brick wall of mix:				
10.2.1	1:6 (1 cement: 6 coarse sand)	200	sqm	266.46	53292.42
10.3	12 mm cement plaster finished with a floating coat of neat cement of mix :				
10.3.1	1:4 (1 cement: 4 fine sand)	10	sqm	287.81	2878.12
10.4	15 mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix :				
10.4.1	1:3 (1 cement: 3 fine sand)	10	sqm	337.00	3370.01
10.5	15 mm cement plaster 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement on the rough side of single or half brick wall.	10	sqm	346.69	3466.90
10.6	6 mm cement plaster of mix :				
10.6.1	1:3 (1 cement : 3 fine sand)	50	sqm	199.34	9967.12

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INSERTION (I)	NIL	
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IITK

10.7	6 mm cement plaster 1:3 (1 cement : 3 fine sand) finished with a floating coat of neat cement and thick coat of Lime wash on top of walls when dry for bearing of R.C.C. slabs and beams.	5	sqm	264.49	1322.45
10.8	Neat cement punning.	5	sqm	55.02	275.10
10.9	Extra for providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturers.	10	per bag of 50kg cement used in the mix	52.39	523.89
10.1	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete.	100	sqm	172.47	17246.82
10.11	Pointing on brick work or brick flooring with cement mortar 1:3 (1 cement : 3 fine sand):				
10.11.1	Flush / Ruled/ Struck or weathered pointing	150	sqm	167.95	25192.90
10.12	Pointing on tile brick work with cement mortar 1:3 (1 cement : 3 fine sand):				
10.12.1	Flush/ Ruled/ Struck or weathered pointing	100	sqm	228.76	22875.93
10.13	White washing with lime to give an even shade :				
10.13.1	New work (three or more coats)	100	sqm	25.03	2503.29
10.14	Distempering with 1st quality acrylic distemper (ready mixed) having VOC content less than 50 gms/litre, of approved manufacturer, of required shade and colour complete, as per manufacturer's specification.				
10.14.1	Two or more coats on new work	20000	sqm	76.41	1528277.07
10.15	Finishing walls with water proofing cement paint of required shade :				
10.15.1	New work (Two or more coats applied @ 3.84 kg/10 sqm)	25	sqm	80.01	2000.22
10.16	Finishing walls with Acrylic Smooth exterior paint of required shade :				
10.16.1	New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)	300	sqm	144.41	43323.10
10.17	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade:				

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IITK

10.17.1	New work (Two or more coats applied @ 1.43 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)	100	sqm	141.30	14129.77
10.18	Applying priming coat:				
10.18.1	With ready mixed pink or Grey primer of approved brand and manufacture on wood work (hard and soft wood)	50	sqm	50.02	2501.10
10.18.2	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/ steel works	25	sqm	44.45	1111.35
10.19	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.				
10.19.1	On steel work	20	sqm	166.37	3327.49
10.2	Painting (two or more coats) on rain water, soil waste and vent pipes and fittings with black anticorrosive bitumastic paint of approved brand and manufacture, over and including a priming of ready mixed zinc chromate yellow primer on new work:				
10.20.1	100 mm diameter pipes	50	metre	50.99	2549.32
10.21	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade :				
10.21.1	Two or more coats on new work	50	sqm	112.80	5640.07
10.22	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :				
10.22.1	Two or more coats on new work	200	sqm	106.58	21315.21
10.23	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :				
10.23.1	Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture	200	sqm	155.33	31065.32
10.24	French spirit polishing :				
10.24.1	Two or more coats on new works including a coat of wood filler	5	sqm	307.89	1539.46

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IITK

10.25	Lettering with black Japan paint of approved brand and manufacture	500	per letter per cm height	4.12	2060.50
10.26	Forming groove of uniform size from 12x12 mm and upto 25x15 mm in the top layer of washed stone grit plastered surface as per approved pattern, including providing and fixing aluminum channels of appropriate size and thickness (not less than 2 mm), nailed to the under layer with rust proof screws and nails and finishing the groove complete as per specifications and direction of the Engineer-in-Charge.	15	metre	76.06	1140.95
10.27	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.	2500	sqm	100.96	252411.22
10.28	White washing with lime to give an even shade :				
10.28.1	Old work (two or more coats)	4000	sqm	14.69	58746.16
10.29	Removing white or colour wash by scrapping and sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete	1000	sqm	12.45	12450.68
10.3	Distempering with 1st quality acrylic distemper (Ready mix) having VOC content less than 50 grams/ litre of approved brand and manufacture to give an even shade :				
10.30.1	Old work (one or more coats)	200	sqm	47.61	9522.14
10.31	Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	2000	sqm	16.00	32003.51
10.32	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade:				
10.32.1	One or more coats on old work	10	sqm	74.22	742.22

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DELETION (D)	NIL	



IITK

10.33	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :				
10.33.1	One or more coats on old work	4000	sqm	70.10	280403.33
10.34	French spirit polishing :				
10.34.1	One or more coats on old work	5	sqm	155.06	775.32
10.35	Distempering with 1st quality acrylic distemper (ready made) having VOC content less than 50 gm per ltr. of approved manufacturer and of required shade and colour complete. as per manufacturer's specification.				
10.35.1	One or more coats on old work	1000	sqm	42.13	42130.64
10.36	Finishing walls with water proofing cement paint of required shade :				
10.36.1	Old work (one or more coats applied @ 2.20 kg/10 sqm) over priming coat of primer applied @ 0.80 ltrs/10 sqm complete including cost of Priming coat.	50	sqm	76.46	3822.88
10.37	Finishing walls with Acrylic Smooth exterior paint of required shade :				
10.37.1	Old work (Two or more coat applied @ 1.67 ltr/ 10 sqm) on existing cement paint surface	2000	sqm	87.59	175186.32
10.37.2	Old work (One or more coat applied @ 0.90 ltr/10 sqm).	100	sqm	59.05	5905.30
10.38	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade				
10.38.1	Old work (Two or more coats applied @ 1.43 ltr/ 10 sqm) over existing cement paint surface	200	sqm	85.71	17141.60
10.39	Melamine polishing on wood work (one or more coat).	5	sqm	97.11	485.53
11	REPAIRS TO BUILDING				
11.1	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq.meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.				

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IITK

11.1.1	With cement mortar 1:4 (1cement: 4 coarse sand)	300	sqm	376.68	113003.07
11.2	Fixing chowkhats in existing opening including embedding chowkhats in floors or walls cutting masonry for holdfasts, embedding hold fasts in cement concrete blocks of size 15 x 10 x 10 cm with cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size), painting two coats of approved wood preservative to sides of chowkhats and making good the damages to walls and floors as required complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.				
11.2.1	Door chowkhats	5	each	1198.47	5992.33
11.2.2	Window chowkhats	5	each	753.09	3765.45
11.3	Making the opening in brick masonry including dismantling in floor or walls by cutting masonry and making good the damages to walls, flooring and jambs complete, to match existing surface i/c disposal of mulba/ rubbish to the nearest municipal dumping ground, all complete as per direction of Engineer-in-Charge.				
11.3.1	For door/ window/ clerestory window	2	sqm	817.58	1635.16
11.4	Renewing glass panes, with putty and nails wherever necessary including racking out the old putty:				
11.4.1	Float glass panes of nominal thickness 4 mm (weight not less than 10kg/sqm)	5	sqm	780.80	3903.99
11.5	Renewing glass panes, with wooden fillets wherever necessary:				
11.5.1	Float glass panes of nominal thickness 4 mm (weight not less than 10kg/sqm)	5	sqm	1107.41	5537.05
11.6	Renewal of old putty of glass panes (length)	5	metre	37.35	186.76
11.7	Refixing old glass panes with putty and nails	5	sqm	485.80	2428.98
11.8	Raking out joints in lime or cement mortar and preparing the surface for re-pointing or replastering, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.	5	sqm	45.33	226.65

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DELETION (D)	NIL	



IITK

11.9	Flush pointing with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2% of integral water proofing compound by weight of cement for flat tile bricks on top of mud phaska :				
11.9.1	With F.P.S. brick tiles	5	sqm	90.71	453.53
11.1	Renewing Wrought iron or M.S. Wheel or roller of steel door or gate and fitting and fixing the same with necessary clamps, nuts and bolts/welding and erection etc. complete.				
11.10.1	Wheel 50 mm dia and below	5	per wheel	128.67	643.36
11.10.2	Wheel above 50 mm dia	5	per wheel	210.83	1054.14
11.11	Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40 mm dia M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube challies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after .The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineer-in-charge .The elevational area of the scaffolding shall be measured for payment purpose .The payment will be made once irrespective of duration of scaffolding.	25	sqm	226.17	5654.32

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

11.12	Cleaning of terrace/loft water storage tank (inside surface area) upto 2000 litre capacity at all heights with coconut brushes, duster etc., removal of silt, rubbish from the tank and cleaning the tank with fresh water disinfecting with bleaching powder @ 0.5gm per litre capacity of tank including marking the date of cleaning on the side of tank body with the help of stencil and paint and disposing of malba all complete as per direction of Engineer-in-Charge. (The old date already written on tank should be removed with paint remover or black paint and if date is not written with the stencil or old date is not removed deduction will be made @ Rs. 0.10 per litre) (if during cleaning any GI fittings or ball cock is damaged that is to be repaired by contractor at his own cost and nothing extra will be paid on this account)	1000	litre	0.31	306.88
11.13	Cleaning of under ground sump, Over Head R.C.C. Tank (independent staging) including disposal of slit and rubbish, all as per direction of Engineer-in-Charge. The cleaning shall consist following operations:- (i)Tank shall be emptied of water by pumping & bottom shall be cleaned of silt and other deposits. (ii) Entire surface area of the sump shall then scrubbed thoroughly with wire brush etc. and pressure washed with water. (iii) Chlorination of RCC internal surface by liquid chlorine. (iv) The treated surface shall be dried using air jetting and all loose particles shall be removal from the surface. (v) Finally the surface shall be treated with ultraviolet radiation etc. as per direction of Engineer-in-Charge.	50	sqm	55.85	2792.63
11.14	Disconnecting damaged overhead/terrace PVC water storage tank of any size from water supply line and removing from the terrace including shifting at ground level as per direction of Engineer-in-charge.	10	each	278.61	2786.06

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

11.15	Providing & fixing White vitreous china water closet squatting pan (Indian type) along with "S" or "P" trap including dismantling of old WC seat and "S" or "P" trap at site complete with all operations including all necessary materials, labour and disposal of dismantled material i/c malba, all complete as per the direction of Engineer-in charge.				
11.15.1	Orissa pattern W.C Pan of size 580x440 mm	10	each	3101.97	31019.73
11.16	Cutting holes of required size in brick masonry wall for fixing of exhaust fan including providing and fixing 300 mm dia PVC pipe conforming BIS-12818 and making good the same etc. complete as per direction of Engineer-in-charge.	10	each	193.25	1932.49
11.17	Dismantling W.C. Pan of all sizes including disposal of dismantled materials i/c malba all complete as per directions of Engineer-in-Charge.	10	each	84.17	841.74
11.18	Hacking of CC flooring including cleaning for surface etc. complete as per direction of the Engineer-in-Charge.	50	sqm	2.19	109.60
11.19	Dismantling 15 to 40 mm dia G.I. pipe including stacking of dismantled pipes (within 50 metres lead) as per direction of Engineer-in-Charge.	100	metre	2.37	236.74
11.2	Taking out existing wooden door shutter, repair by cutting, painting etc. and refixing of repaired door shutters to existing door frames, including replacement of hinges with screws, etc. as required, all complete as per the direction of the Engineer-in-charge.	25	each	261.16	6528.93
12	DISMANTLING AND DEMOLISHING				
12.1	Demolishing lime concrete manually/ by mechanical means and disposal of material within 50 metres lead as per direction of Engineer- in-charge.	15	cum	532.66	7989.92
12.2	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge.				
12.2.1	Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	15	cum	1523.41	22851.16

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

12.2.2	Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix)	5	cum	940.64	4703.20
12.3	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.	3	cum	2222.45	6667.34
12.4	Extra for cutting reinforcement bars manually/ by mechanical means in R.C.C. or R.B. work (Payment shall be made on the cross sectional area of R.C.C. or R.B. work) as per direction of Engineer-in-charge.	5	sqm	756.99	3784.96
12.5	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.				
12.5.1	In cement mortar	5	cum	1288.82	6444.10
12.6	Removing mortar from bricks and cleaning bricks including stacking within a lead of 50 m (stacks of cleaned bricks shall be measured):				
12.6.1	From brick work in cement mortar	10000	1000 Nos	4279.61	42796.14
12.7	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :				
12.7.1	Of area 3 sq. metres and below	30	each	240.68	7220.52
12.8	Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 metres lead :				
12.8.1	Of area 3 sq. metres and below	20	each	93.42	1868.48
12.9	Dismantling steel work in single sections including dismembering and stacking within 50 metres lead in:				
12.9.1	Channels, angles, tees and flats	30	kg	1.49	44.72
12.1	Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50 metres lead.	30	kg	3.64	109.16

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

12.11	Dismantling steel work manually/ by mechanical means in built up sections without dismembering and stacking within 50 metres lead as per direction of Engineer-in-charge.	10	kg	2.41	24.11
12.12	Demolishing brick tile covering in terracing including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	25	sqm	69.79	1744.85
12.13	Dismantling and stacking within 50 metres lead, fencing posts or struts including all earth work and dismantling of concrete etc. in base of:				
12.13.1	T' or 'L' iron or pipe	25	each	149.28	3731.92
12.14	Dismantling barbed wire or flexible wire rope in fencing including making rolls and stacking within 50 metres lead.	50	kg	23.02	1150.81
12.15	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 :				
12.15.1	15 mm to 40 mm nominal bore	50	metre	94.83	4741.34
12.16	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:				
12.16.1	Up to 150 mm diameter	5	metre	262.21	1311.05
12.17	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.	5	each	585.84	2929.20
12.18	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	200	sqm	34.20	6839.11

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

12.19	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.	100	cum	121.74	12174.48
13	ROAD WORK				
13.1	Fencing with angle iron post placed at required distance embedded in cement concrete blocks, every 15th post, last but one end post and corner post shall be strutted on both sides and end post on one side only and provided with horizontal lines and two diagonals interwoven with horizontal wires, of barbed wire weighing 9.38 kg per 100 m (minimum), between the two posts fitted and fixed with G.I. staples, turn buckles etc. complete. (Cost of posts, struts, earth work and concrete work to be paid for separately). Payment to be made per metre cost of total length of barbed wire used.				
13.1.1	With G.I. barbed wire	500	metre	16.70	8351.60
13.2	Supplying at site Angle iron post & strut of required size including bottom to be split and bent at right angle in opposite direction for 10 cm length and drilling holes upto 10 mm dia. etc. complete.	100	kg	81.02	8101.71
13.3	Painting road surface marking with adequate nos of coats to give uniform finish with ready mixed road marking paint conforming to IS : 164, on bituminous surface in white/yellow shade, including cleaning the surface of all dirt, scales, oil, grease and foreign material etc. complete.				
13.3.1	New work (Two or more coats)	10	sqm	189.35	1893.47
13.3.2	Old work (One or more coats)	25	sqm	124.24	3106.09
13.4	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	50	sqm	753.49	37674.27

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

13.5	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 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	10	cum	7344.28	73442.79
13.6	Providing and erecting 2.00 metre high temporary barricading at site; each panel of size 2.50mx2.00m made of 40x40x6mm angle iron or 50x50x3mm hollow MS tube posts/horizontal members/bracings covered with 1.63mm thick MS sheet. The sheet shall be fixed with 30x5mm MS flat by suitable welding/riveting. The panels shall be made so that gap of 50cm above the ground is available making overall height as 2.5m. MS channel ISLC 75 @ 5.70 kg/m, 50cm long shall be provided at the bottom having oval shaped holes of size 50x25mm at both ends with 50cm long MS angle 40x40x6mm bracing. Suitable arrangement shall be made to fix the barricading to avoid from overturning by providing 250mm long expansion fasteners at both ends. The work shall be executed as per drawing/direction of Engineer-in-Charge which includes writing and painting, arrangement for traffic diversion such as traffic signals during construction at site for day and night, glow lamps, reflective signs, marking, flags, caution tape as directed by the Engineer-in-Charge. The barricading provided shall be retained in position at site continuously i/c shifting of barricading from one location to another location as many times as required during the execution of the entire work till its completion. Rate include its maintenance for damages, painting, all incidentals, labour materials, equipments and works required to execute the job. The barricading shall not be removed without prior approval of Engineer-in-Charge. (Note :- One time payment shall be made for providing barricading from start of work till completion of work i/c shifting. The barricading provided shall	100	metre	2250.50	225050.42

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

	remain to be the property of the contractor on completion of the work).				
13.7	Taking out existing kerb stones of all types from footpath/ central verge, including removal of mortar etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.	100	metre	24.59	2459.45
13.8	Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.	50	sqm	82.46	4123.19
13.9	Laying old cement concrete interlocking paver blocks of any design/ shape laid in required line, level, curvature, colour and pattern over and including 50 mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge. (Old CC paver blocks shall be supplied by the department free of cost).	50	sqm	284.26	14213.06
13.1	Laying at or near ground level old kerb stones of all types 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 be more than 5 mm), including making drainage opening wherever required etc. complete as per direction of Engineer-in-charge. (Length of finished kerb edging shall be measured for payment). (Old kerb stones shall be supplied by the department free of cost)	100	metre	72.73	7273.13
14	SANITARY INSTALLATIONS				

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

14.1	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100 mm sand cast Iron P or S trap, 10 litre low level 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:				
14.1.1	White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests	10	each	4753.62	47536.17
14.2	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 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 :				
14.2.1	W.C. pan with ISI marked white solid plastic seat and lid	5	each	4612.85	23064.23
14.2.2	W.C. pan with ISI marked black solid plastic seat and lid	5	each	4507.28	22536.39
14.3	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:				
14.3.1	White Vitreous China Wash basin size 550x400 mm with a pair of 15 mm C.P. brass pillar taps	5	each	2496.19	12480.93
14.3.2	White Vitreous China Flat back wash basin size 550x 400 mm with single 15 mm C.P. brass pillar tap	5	each	2201.18	11005.92
14.4	Providing and fixing wash basin with C.I. brackets, 15 mm dia CP Brass single hole basin mixer of approved quality and make, including painting of fittings and brackets, cutting and making good the walls wherever required:- (a) White Vitreous China Wash basin size 550x400 mm with a 15 mm CP Brass single hole basin mixer	5	each	3861.29	19306.44

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

14.5	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS:13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required :				
14.5.1	Kitchen sink with drain board				
14.5.1.1	510x1040 mm bowl depth 250 mm	2	each	4520.78	9041.56
14.5.1.2	510x1040 mm bowl depth 225 mm	2	each	5130.82	10261.64
14.5.1.3	510x1040 mm bowl depth 200 mm	2	each	4896.19	9792.37
14.5.2	Kitchen sink without drain board				
14.5.2.1	610x510 mm bowl depth 200 mm	50	each	3184.17	159208.68
14.6	Providing and fixing white vitreous china water closet squatting pan (Indian type) :				
14.6.1	Long pattern W.C. pan of size 580 mm	5	each	1351.21	6756.03
14.6.2	Orissa pattern W.C. pan of size 580x440 mm	5	each	2231.04	11155.20
14.7	Providing and fixing white vitreous china pedestal type (European type/ wash down type) water closet pan.	5	each	1996.45	9982.24
14.8	Providing and fixing 8 mm dia C.P. / S.S. Jet with flexible tube upto 1 metre long with S.S. triangular plate to European type W.C. of quality and make as approved by Engineer - in - charge.	10	each	260.89	2608.94
14.9	Providing and fixing a pair of white vitreous china foot rests of standard pattern for squatting pan water closet :				
14.9.1	250x130x30 mm	4	pair	188.16	752.65
14.1	Providing and fixing P.V.C. low level flushing cistern with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete.				
14.10.1	10 litre capacity - White	5	each	876.76	4383.82
14.11	Providing and fixing solid plastic seat with lid for pedestal type W.C. pan complete :				
14.11.1	White solid plastic seat with lid	2	each	500.66	1001.32
14.11.2	Black solid plastic seat with lid	2	each	395.09	790.18
14.12	Providing and fixing CP Brass 32mm size Bottle Trap of approved quality & make and as per the direction of Engineer-in-charge.	2	each	774.27	1548.53

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

14.13	Providing and fixing CP Brass Single lever telephonic wall mixer of quality & make as approved by Engineer in charge. (a) 15 mm nominal dia	2	each	5360.46	10720.91
14.14	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm or 340x410x265 mm sizes respectively.	2	each	1139.63	2279.26
14.15	Providing and fixing white vitreous china laboratory sink including making all connections excluding cost of fittings :				
14.15.1	Size 450x300x150 mm	5	each	1879.83	9399.17
14.15.2	Size 600x450x200 mm	5	each	3052.96	15264.80
14.16	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.				
14.16.1	Flexible pipe				
14.16.1.1	32 mm dia	10	each	88.65	886.45
14.16.1.2	40 mm dia	5	each	88.65	443.23
14.17	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.	10	each	1124.99	11249.89
14.18	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 :				
14.18.1	Rectangular shape 1500x450 mm	5	each	1566.46	7832.31
14.19	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.	5	each	738.10	3690.49
14.2	Providing and fixing toilet paper holder :				
14.20.1	C.P. brass	5	each	511.84	2559.18
14.21	Providing and fixing soil, waste and vent pipes :				
14.21.1	100 mm dia				
14.21.1.1	Sand cast iron S&S pipe as per IS: 1729	100	metre	884.00	88399.82

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

14.21.1.2	Centrifugally cast (spun) iron socket & spigot (S&S) pipe as per IS: 3989	5	metre	957.65	4788.25
14.21.2	75 mm diameter :				
14.21.2.1	Sand cast iron S&S pipe as per IS: 1729	10	metre	809.51	8095.13
14.21.2.2	Centrifugally cast (spun) iron socketed pipe as per IS: 3989	5	metre	869.84	4349.19
14.22	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. :				
14.22.1	For 100 mm dia pipe	10	each	252.04	2520.39
14.23	Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.				
14.23.1	100 mm dia				
14.23.1.1	Sand cast iron S&S as per IS - 1729	5	each	404.78	2023.89
14.23.1.2	Sand cast iron S&S as per IS - 3989	5	each	404.78	2023.89
14.23.2	75 mm dia				
14.23.2.1	Sand cast iron S&S as per IS - 1729	2	each	325.65	651.29
14.23.2.2	Sand cast iron S&S as per IS- 3989	5	each	337.35	1686.76
14.24	Providing and fixing plain bend of required degree.				
14.24.1	100 mm dia				
14.24.1.1	Sand cast iron S&S as per IS - 1729	10	each	334.37	3343.71
14.24.1.2	Sand cast iron S&S as per IS : 3989	10	each	342.61	3426.13
14.24.2	75 mm dia				
14.24.2.1	Sand cast iron S&S as per IS -1729	2	each	271.68	543.36
14.24.2.2	Sand cast iron S&S as per IS - 3989	2	each	254.06	508.11
14.25	Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.				
14.25.1	100x100x100 mm				
14.25.1.1	Sand cast iron S&S as per IS - 1729	10	each	527.97	5279.70
14.25.1.2	Sand cast iron S&S as per IS - 3989	2	each	633.54	1267.08
14.25.2	75x75x75 mm				
14.25.2.1	Sand cast iron S&S as per IS - 1729	2	each	419.47	838.93
14.25.2.2	Sand cast iron S&S as per IS - 3989	2	each	481.67	963.35

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

14.26	Providing and fixing single equal plain junction of required degree :				
14.26.1	100x100x100 mm				
14.26.1.1	Sand cast iron S&S as per IS - 1729	5	each	454.06	2270.28
14.26.1.2	Sand cast iron S&S as per IS - 3989	5	each	585.44	2927.22
14.26.2	75x75x75 mm				
14.26.2.1	Sand cast iron S&S as per IS - 1729	5	each	351.42	1757.12
14.26.2.2	Sand cast iron S&S as per IS - 3989	2	each	412.45	824.90
14.27	Providing and fixing terminal guard :				
14.27.1	100 mm				
14.27.1.1	Sand cast iron S&S as per IS - 1729	4	each	312.10	1248.40
14.27.1.2	Sand cast iron S&S as per IS - 3989	2	each	341.43	682.86
14.27.2	75 mm				
14.27.2.1	Sand cast iron S&S as per IS - 1729	2	each	249.36	498.73
14.27.2.2	Sand cast iron S&S as per IS - 3989	2	each	271.68	543.36
14.28	Providing and fixing collar :				
14.28.1	100 mm				
14.28.1.1	Sand cast iron S&S as per IS - 1729	10	each	320.30	3202.98
14.28.1.2	Sand cast iron S&S as per IS - 3989	2	each	359.01	718.02
14.28.2	75 mm				
14.28.2.1	Sand cast iron S&S as per IS - 1729	5	each	232.97	1164.84
14.28.2.2	Sand cast iron S&S as per IS - 3989	2	each	224.73	449.45
14.29	Providing lead caulked joints to sand cast iron/centrifugally cast (spun) iron pipes and fittings of diameter :				
14.29.1	100 mm	100	each	422.14	42213.94
14.29.2	75 mm	20	each	357.65	7153.00
14.3	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 :				
14.30.1	100 mm inlet and 100 mm outlet				
14.30.1.1	Sand cast iron S&S as per IS: 3989	5	each	1326.22	6631.08
14.30.1.2	Sand Cast Iron S&S as per IS: 1729	10	each	1116.22	11162.21
14.30.2	100 mm inlet and 75 mm outlet				
14.30.2.1	Sand cast iron S&S as per IS - 3989	5	each	1384.88	6924.38
14.30.2.2	Sand Cast Iron S&S as per IS- 1729	10	each	1054.06	10540.55

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

14.31	Providing and fixing vitreous china dual purpose closet suitable for use as squatting pan or European type water closet (Anglo Indian W.C pan) with seat & lid fixed with C.P. brass hinges and rubber buffers, 10 litre low level flushing cistern with fitting and brackets, 40 mm flush bend, 20 mm over flow pipe, with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required:				
14.31.1	White vitreous china dual purpose WC pan with white solid plastic seat and lid with white vitreous china flushing cistern and C.P. flush bend.	1	each	8789.04	8789.04
14.32	Providing and fixing white vitreous china extended wall mounting water closet of size 780x370x690 mm of approved shape including providing & fixing white vitreous china cistern with dual flush fitting, of flushing capacity 3 litre/ 6 litre (adjustable to 4 litre/ 8 litres), including seat cover, and cistern fittings, nuts, bolts and gasket etc complete.	1	each	12145.94	12145.94
15	WATER SUPPLY				
15.1	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. Internal work - Exposed on wall				
15.1.1	15 mm nominal outer dia Pipes	2	metre	211.79	423.59
15.1.2	20 mm nominal outer dia Pipes	2	metre	269.14	538.27

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

15.2	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. Concealed work, including cutting chases and making good the walls etc.				
15.2.1	15 mm nominal outer dia Pipes	2	metre	359.18	718.37
15.2.2	20 mm nominal outer dia Pipes	2	metre	419.25	838.49
15.3	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work - Exposed on wall				
15.3.1	15 mm dia nominal bore	25	metre	249.80	6245.07
15.3.2	20 mm dia nominal bore	100	metre	301.71	30170.98
15.3.3	25 mm dia nominal bore	5	metre	384.04	1920.21
15.3.4	32 mm dia nominal bore	5	metre	464.45	2322.23
15.3.5	40 mm dia nominal bore	5	metre	560.81	2804.03
15.3.6	50 mm dia nominal bore	5	metre	689.83	3449.15
15.4	Providing and fixing G.I. Pipes complete with G.I. fittings and clamps, i/c making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making good the wall :				
15.4.1	15 mm dia nominal bore	150	metre	392.46	58868.92
15.4.2	20 mm dia nominal bore	25	metre	433.23	10830.78
15.5	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. External work				
15.5.1	15 mm dia nominal bore	50	metre	214.07	10703.64
15.5.2	20 mm dia nominal bore	75	metre	248.84	18662.87
15.5.3	25 mm dia nominal bore	75	metre	319.64	23973.04
15.5.4	32 mm dia nominal bore	10	metre	372.38	3723.81
15.5.5	40 mm dia nominal bore	5	metre	423.63	2118.15

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

15.6	Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete :				
15.6.1	25 to 40 mm nominal bore	10	each	590.49	5904.87
15.7	Providing and fixing brass bib cock of approved quality :				
15.7.1	15 mm nominal bore	5	each	265.28	1326.39
15.8	Providing and fixing brass stop cock of approved quality :				
15.8.1	15 mm nominal bore	5	each	265.28	1326.39
15.9	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :				
15.9.1	25 mm nominal bore	5	each	435.91	2179.53
15.9.2	20 mm nominal bore	5	each	403.51	2017.54
15.1	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :				
15.10.1	15 mm nominal bore	10	each	296.98	2969.75
15.10.2	20 mm nominal bore	10	each	338.80	3387.99
15.11	Providing and fixing brass ferrule with C.I. mouth cover including boring and tapping the main :				
15.11.1	15 mm nominal bore	5	each	258.79	1293.95
15.11.2	20 mm nominal bore	5	each	298.42	1492.11
15.12	Providing and fixing uplasticised PVC connection pipe with brass unions :				
15.12.1	45 cm length				
15.12.1.1	15 mm nominal bore	20	each	72.78	1455.50
15.13	Providing and fixing C.P. brass shower rose with 15 or 20 mm inlet :				
15.13.1	100 mm diameter	10	each	133.19	1331.87

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

15.14	Constructing masonry Chamber 30x30x50 cm inside, in brick work in cement mortar 1:4 (1 cement :4 coarse sand) for stop cock, with C. I. surface box 100x100 x75 mm (inside) with hinged cover fixed in cement concrete slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12mm thick, finished with a floating coat of neat cement complete as per standard design :				
15.14.1	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	10	each	1387.51	13875.05
15.15	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 :				
15.15.1	15 mm diameter pipe	25	metre	13.33	333.19
15.15.2	20 mm diameter pipe	25	metre	15.91	397.85
15.15.3	25 mm diameter pipe	5	metre	20.78	103.90
15.15.4	32 mm diameter pipe	5	metre	24.90	124.51
15.16	Painting G.I. pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality :				
15.16.1	15 mm diameter pipe	25	metre	8.15	203.86
15.16.2	20 mm diameter pipe	25	metre	9.73	243.31
15.16.3	25 mm diameter pipe	25	metre	12.41	310.17
15.16.4	32 mm diameter pipe	25	metre	14.95	373.74
15.17	Providing and filling sand of grading zone V or coarser grade, allround the G.I. pipes in external work :				
15.17.1	15 mm diameter pipe	25	metre	125.03	3125.82
15.17.2	20 mm diameter pipe	25	metre	126.74	3168.57
15.17.3	25 mm diameter pipe	5	metre	130.12	650.59
15.17.4	32 mm diameter pipe	5	metre	133.49	667.47
15.18	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) :				

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

15.18.1	15 mm nominal bore	20	each	206.71	4134.15
15.18.2	20 mm nominal bore	20	each	228.98	4579.57
15.18.3	25 mm nominal bore	10	each	298.20	2982.03
15.19	Providing and fixing G.I. Union in existing G.I. pipe line, cutting and threading the pipe and making long screws, including excavation, refilling the earth or cutting of wall and making good the same complete wherever required :				
15.19.1	15 mm nominal bore	5	each	541.17	2705.83
15.19.2	20 mm nominal bore	10	each	563.48	5634.81
15.2	Providing and fixing rectangular high density polyethylene water storage loft tank with cover, conforming to ISI : 12701, colour of opaque white or as approved by Engineer-in-charge. The rate includes making necessary holes for inlet, outlet & over flow pipes. The base support i/c fittings & fixtures for tank shall be paid separately.	10000	per litre	7.72	77159.14
15.21	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 :				
15.21.1	15 mm nominal bore	25	each	367.34	9183.47
15.22	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms.				
15.22.1	15 mm nominal bore	25	each	484.31	12107.63
15.23	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931.				
15.23.1	15 mm nominal bore	25	each	531.57	13289.13
15.24	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931				
15.24.1	15mm nominal bore	25	each	466.46	11661.55
15.25	Providing and fixing C.P. Brass extension nipple (size 15mmx50mm) of approved make and quality as per direction of Engineer-in-charge.	50	each	53.70	2685.23
15.26	Cutting holes up to 30x30 cm in walls including making good the same:				
15.26.1	With common burnt clay F.P.S. (non modular) bricks	25	each	286.94	7173.39

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

15.27	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.	5	each	302.15	1510.74
15.28	Making chases up to 7.5x7.5 cm in walls including making good and finishing with matching surface after housing G.I. pipe etc.	50	metre	135.16	6758.00
15.29	Making hole up to 20x20 cm and embedding pipes up to 150 mm diameter in masonry and filling with cement concrete 1:3:6 (1 cement : 3 coarse sand: 6 graded stone aggregate 20 mm nominal size) including disposal of malba.	5	metre	157.96	789.79
16	DRAINAGE				
16.1	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 :				
16.1.1	100 mm diameter	30	metre	277.99	8339.76
16.1.2	150 mm diameter	25	metre	438.58	10964.49
16.2	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 :				
16.2.1	100 mm diameter S.W. pipe	30	metre	716.35	21490.57
16.2.2	150 mm diameter S.W. pipe	10	metre	876.06	8760.63
16.3	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) up to haunches of S.W. pipes including bed concrete as per standard design :				
16.3.1	100 mm diameter S.W. pipe	25	metre	340.46	8511.62
16.4	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 x300 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:				

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

16.4.1	100x100 mm size P type				
16.4.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	5	each	2022.80	10113.99
16.5	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete :				
16.5.1	150 mm dia. R.C.C. pipe	100	metre	405.61	40561.16
16.5.2	250 mm dia. R.C.C. pipe	10	metre	661.51	6615.08
16.6	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 :				
16.6.1	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :				
16.6.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	2	each	9561.64	19123.28
16.7	Extra for depth for manholes :				
16.7.1	Size 90x80 cm				
16.7.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	2	metre	6578.69	13157.39
16.8	Replacement of M.S. foot rests in manholes including dismantling concrete blocks and fixing with 20x20x10 cm cement concrete blocks 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size):				

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

16.8.1	With 20 mm diameter round bar	25	each	419.03	10475.67
16.9	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 :				
16.9.1	For pipes 100 to 250 mm diameter	10	each	546.69	5466.90
16.9.2	For pipes 250 to 300 mm diameter	2	each	628.93	1257.87
16.1	Extra for depth of manholes dismantled :				
16.10.1	Rectangular manhole 90x80 cm and beyond 45 cm depth	2	metre	1280.18	2560.37
16.11	Raising manhole cover and frame slab to required level including dismantling existing slab and making good the damage as required (Raising depth of manhole to be paid separately) :				
16.11.1	Rectangular manhole 90x80 cm with rectangular cover 600 x 450 mm of grade LD - 2.5	2	each	2155.15	4310.30
16.12	Constructing brick masonry road gully chamber 45x45x77.5 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) with precast R.C.C. vertical grating complete as per standard design :				
16.12.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	10	each	5080.97	50809.73
17	ALUMINIUM WORK				

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

17.1	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :				
17.1.1	For fixed portion				
17.1.1.1	Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	50	kg	371.72	18586.15
17.1.2	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)				
17.1.2.1	Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	10	kg	450.15	4501.53
17.2	Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge.				
17.2.1	Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side	5	sqm	874.79	4373.96

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

17.2.2	Pre-laminated particle board with decorative lamination on both sides	5	sqm	917.93	4589.65
17.3	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):				
17.3.1	With float glass panes of 5 mm thickness (weight not less than 12.50 kg/sqm)	5	sqm	1136.69	5683.47
17.4	Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315, having brand logo embossed on the body / plate with double spring mechanism and door weight upto 125 kg, for doors, including cost of cutting floors, embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge.				
17.4.1	With stainless steel cover plate minimum 1.25 mm thickness	2	each	2115.30	4230.60
17.5	Filling the gap in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.				
17.5.1	Upto 5mm depth and 5 mm width	50	metre	69.66	3483.12
17.6	Providing and fixing aluminium tubular handle bar 32 mm outer dia, 3.0 mm thick & 2100 mm long with SS screws etc .complete as per direction of Engineer-in-Charge.				
17.6.1	Anodized (AC 15) aluminium tubular handle bar	2	each	449.19	898.38
17.7	Providing and fixing Brass 100mm mortice latch and lock with 6 levers without pair of handles (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.	2	each	402.06	804.12

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

17.8	Providing and fixing aluminium casement windows fastener of required length for aluminium windows with necessary screws etc. complete.				
17.8.1	Anodized (AC 15) aluminium	2	each	59.23	118.46
17.9	Providing and fixing aluminium round shape handle of outer dia 100 mm with SS screws etc. complete as per direction of Engineer-in-charge				
17.9.1	Anodized (AC 15) aluminium	5	each	69.79	348.97
17.1	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).	25	kg	455.81	11395.22
18	WATER PROOFING				
18.1	Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like consisting of: (i) 1st course of applying cement slurry @ 4.4 kg/sqm mixed with water proofing compound conforming to IS 2645 in recommended proportions including rounding off junction of vertical and horizontal surface. (ii) 2nd course of 20 mm cement plaster 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound in recommended proportion including rounding off junction of vertical and horizontal surface. (iii) 3rd course of applying blown or residual bitumen applied hot at 1.7 kg. per sqm of area. (iv) 4th course of 400 micron thick PVC sheet. (Overlaps at joints of PVC sheet should be 100 mm wide and pasted to each other with bitumen @ 1.7 kg/sqm).	10	sqm	618.76	6187.64

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

18.2	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.	30	sqm	408.24	12247.26
18.3	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			0.00	0.00

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

	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 :				
18.3.1	With average thickness of 120 mm and minimum thickness at khurra as 65 mm.	25	sqm	1226.22	30655.41
18.4	Grading roof for water proofing treatment with				
18.4.1	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size)	2	cum	6071.59	12143.18
19	NEW TECHNOLOGIES AND MATERIALS				
19.1	Providing, mixing and applying bonding coat of approved adhesive on chipped portion of RCC as per specifications and direction of Engineer-In-charge complete in all respect.				
19.1.1	SBR Polymer (@10% of cement weight) modified cementitious bond coat @ 2.2 kg cement per sqm of surface area mixed with specified proportion of approved polymer	25	sqm	102.85	2571.24
19.1.2	Epoxy bonding adhesive having coverage 2.20 sqm/kg of approved make	5	sqm	340.64	1703.20
19.2	Providing, mixing and applying SBR polymer (of approved make) modified Cement mortar in proportion of 1:4 (1 cement: 4 graded coarse sand with polymer minimum 2% by wt. of cement used) as per specifications and directions of Engineer-in-charge.				
19.2.1	25 mm average thickness in 2 layers.	25	sqm	412.98	10324.42

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

19.3	Providing, mixing and applying SBR polymer (of approved make @ minimum 2% by wt. of cement used) modified plain/reinforced cement concrete for structural members having minimum characteristic compressive strength [with ordinary portland cement, coarse sand and graded stone aggregate of 10mm maximum size in proportion as per design criteria] with specified average thickness.				
19.3.1	50mm thick in Grade M 25 with cement content not less than 330 kg per cum	15	sqm	473.39	7100.83
20	MINOR CIVIL MAINTENANCE WORK:				
20.1	"Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:5:10 (1 cement : 5 coarse sand (zone-III) derived from natural sources: 10 graded brick aggregate 40 mm nominal size derived from natural sources)	20	Cum	4455.55	89110.92
20.2	"P/F C.P brass towel rod complete with two C.P.brass brackets fixed to wooden cleats with C.P. brass screws of approved quality size of 600 x 20 mm.	10	Each	422.32	4223.24
20.3	"Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) : (a) 15mm nominal bore.	10	Each	555.02	5550.20
20.4	"Providing and fixing C.P. grating with or without hole for waste pipe for floor/ nahani trap 100 mm dia. weight not less than 100 grams.	25	Each	58.66	1466.46
20.5	"Cutting rubbing and polishing of old mosaic flooring of dado for rubbing and removal of rubbish i/c one coat of cement slurry for final rubbing and polishing.	500	Sqm	66.29	33143.36
20.6	"Providing and fixing C.P flange for C.P bib cock/C.P angle stop cock.	100	Each	29.33	2932.92
20.7	"Providing and fixing C.P Brass shower rose 15 mm or 20 mm inlet with shower arm (a) 75 mm dia fancy type.	10	Each	504.44	5044.37
20.8	"Providing and fixing C.P. waste 32 mm dia of make L&K for wash basin / sink.	10	Each	281.46	2814.56

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

20.9	"Providing and fixing ISI marked flush door shutter non decorative type, core of block board construction with frame of first class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters. 35 mm thick including ISI marked M.S butt hinges with necessary screw complete.	50	Sqm	2019.25	100962.30
20.1	"Providing and fixing white vitreous china oval type wash basin of size 550 x 480 with 15mm C.P brass pillar tap, 32mm C.P brass waste of standard pattern.	5	Each	3404.54	17022.71
20.11	"Providing and Fixing M.S handle for steel window.	5	Each	29.37	146.87
20.12	"Providing and fixing C.P. pillar cock 15 mm nominal bore (L&K make) for wash basin.	5	Each	633.49	3167.47
20.13	"Providing and Fixing white vitreous china flat back half stall urinal of size 580x 380 x 350 mm with fittings standard size, C.P. Brass domical waste 32 mm , C.P. Brass spreaders 15 mm , C.P. Connection pipe with Brass union & clamp and C.P Brass Push Cock 15 mm including cutting & making good the wall.	5	Each	6441.91	32209.56
20.14	"Providing and fixing C.P soap dish.	5	Each	316.74	1583.69
20.15	Providing & fixing C.P Coat Pin hanger	5	Each	117.32	586.58
20.16	"Providing and fixing C.P connection for gyser (15 x 450) mm with nut and washer.	10	Each	305.13	3051.29
20.17	"Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in: Cement mortar 1:6 (1 cement : 6 coarse sand) with old available bricks"	2	Cum	2827.49	5654.98
20.18	"Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:5:10 (1 cement : 5 coarse sand (zone-III) derived from natural sources: 10 graded brick aggregate 40 mm nominal size derived from natural sources). with old available brick aggregate.	2	Cum	3724.68	7449.36

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

20.19	Brick on edge flooring with old available bricks of class designation 7.5 on a bed of 12 mm cement mortar, including filling the joints with same mortar, with common burnt clay non modular bricks:1:6 (1cement : 6 coarse sand)	5	Sqm	445.51	2227.53
20.2	Half brick masonry with old available common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level. Cement mortar 1:4 (1 cement :4 coarse sand)	5	Sqm	529.42	2647.08
20.21	"Providing and fixing C.P waste 40 mm nominal bore for china sink or wash basin (L&K) make.	5	Each	293.29	1466.46
20.22	"Providing and fixing C.P waste 50 mm nominal bore for china sink or wash basin (L&K) make.	5	Each	363.88	1819.38
20.23	"P/F 1.50mm thick homogeneous polyvinyl chloride sheet/tile in flooring and skirting in approved pattern on a smooth and damp proof base using rubber base adhesive of approved quality and manufacturer like Dualpo S-758 , Fevicol SR 998 or equivalent including rolling with light wooden roller weight about 5 kg. All complete as directed by Engineer -in -charge in approved colour and shade.	50	Sqm	542.74	27137.22
20.24	Providing & fixing Kota Stone Strips with CM 1:4 in CC Road i/c cutting the kota in strips.	25	Rm	21.92	548.01
20.25	Providing and fixing C.P basin mixer of 15 mm nominal bore (L&K) make for one piece only	5	Each	2053.05	10265.23
20.26	Providing and fixing C.P. hand spray (heath faucet) with push button control and flexible hose connection with C.P hook of L&K make or approved equivalent complete in all respects.	5	Each	815.76	4078.78
20.27	"Providing and fixing 15 mm nominal bore C.P brass two way bib cock of L&K or approved equivalent make.	5	Each	1014.91	5074.53
20.28	"Rate for recovery from the contractor for the repurchase of dismantled material on the basis of as is where is:-				

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



IITK

20.28.1	"Door shutter including chowkhats and fittings etc. complete	5	Each	-771.59	-3857.96
20.28.2	"Window shutter including chowkhat fittings etc. complete.	5	Each	-569.93	-2849.63
20.28.3	Iron door	5	Each	-1139.85	-5699.25
20.28.4	Ventilator	5	Each	-350.72	-1753.62
20.29	Providing and fixing anti-cocroach grating 125 mm dia of approved equivalent make.	2	Each	334.50	669.00
20.3	Providing and fixing 15 mm nominal bore C.P. swan neck pillar cock of L&K or approved equivalent make.	2	Each	1125.82	2251.64
20.31	Providing and fixing 15 mm nominal bore two way angle valve of make L&K or approved equivalent make.	10	Each	1014.91	10149.06
20.32	Providing and fixing specified wood frame work consisting of battens 50x25 mm fixed with rawl plug and drilling necessary holes for rawl plug etc. including priming coat complete.				
20.32.1	"Sal wood seasoned and chemically treated"	0.1	Cum	150641.87	15064.19
20.32.2	"Second class Teak Wood seasoned and chemically treated"	0.1	Cum	156835.64	15683.56
	Total				7646958.00

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	



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IWD/D1

CORRECTION (C)	NIL	Sr. AE (SG) E.E.
INSERTION (I)	NIL	
DELETION (D)	NIL	