Notice Inviting Tender No. :-01/CSU/HQ/EC/25-26

**Technical Sanction No** 

: - 1/TS/CSU/HQ/25-26

Name of Work

: - Renovation of Ground Floor Space (Lift Side) for

Vice Chancellor's Secretariat

**Estimated cost** 

Rs. 54,30,006/-

**Earnest Money** 

Rs. 1,08,600/-

**Security Deposit** 

2.5% of the tendered Value

Time Allowed

04 Months

Certified that NIT contains 1 to -100- pages

Registrar

Director

# NOTICE INVITING TENDER

# N.I.T. NO.:01/CSU/HQ/EC/25-26

NAME OF WORK: Renovation of Ground Floor Space (Lift Side) for Vice Chancellor's Secretariat

Sl. No.	CONTENTS	Page No.
1	NIT Particulars and Index	
2	Sample Press Note to Publish on	3
3	Instructions and information for Bidders	4-5
4	PWD-6 NIT	6-8
5	Percentage rate Tender for work (Form CPWD-7)	9-11
4	Proforma of Schedule A to F	12-16
5.	Annexure-C 1	17
6	General terms and conditions	18-20
7	Special Conditions	21-36
8	Additional condition for steel reinforcement	37-38
9	Additional condition for cement	39-40
10	GUARANTEE TO BE EXECUTED BY CONTRACTORS FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WATER PROOFING WORKS	41
11	Guarantee bond in respect of Structural repair/rehabilitation/retrofitting works	42
12	Special condition to comply directive of Hon'ble National Green Tribunal & EIA Guidance Manual	43-46
13	Minimum Quality Assurance Plan (for the work costing more than 10 lac)	51
14	List of Preferred Make	53-61
15	Schedule of Quantities	62-100

# Certified that this N.I.T. contains page 1 to ----

N.I.T. approved for Rs. 54,30,006/- (Rupees Fifty Four Lakhs Thirty Thousand and Six only)

**Section Officer** 

Deputy Director (Admn)

# Registrar

# (PWD-6)

The Deputy Director, Central Sanskrit University, Head Quarter Janakpuri New Delhi-110058 on behalf of the Vice Chancellor CSU invites Percentage Rate sealed bids from enlisted and eligible contractors of CPWD and those of appropriate list of M.E.S., BSNL, Railway, Public Undertakings/Autonomous bodies and Delhi Govt.'s Department dealing with building and roads for NIT No 01/CSU/HQ/EC/25-26

NIT No. 01/CSU/HQ/EC/25-26, Name of work: Renovation of Ground Floor Space (Lift Side) for Vice Chancellor's Secretariat Estimated Cost: - Rs 54,30,006/- Earnest Money: - Rs. 1,08,600 /-, Period of completion: - 4 Months, Last time and date of submission of bid 15.00 hrs. on 11.08.2025 and opening time & date of bid 15.30 hrs. on 11.08.2025

14.08.2025

14.08.25

The bid forms and other details can be seen and downloaded free of cost from website Central Sanskrit University, Delhi i.e. <a href="https://www.sanskrit.nic.in">www.sanskrit.nic.in</a> and Central Public Procurement Portal (CPPP).

Copy to:

- (1) PS to Vice-Chancellors, Delhi
- (2) Registrar's Office, CSU, Delhi
- (3) Project Officer, CSU, Delhi- for uploading the same on CPP Portal and University's website.
- (4) Engineering Cell, HQ Office, CSU, Delhi

#### INFORMATION AND INSTRUCTIONS FOR BIDDERS FOR TENDERING FORMING PART OF BID DOCUMENT AND TO BE POSTED ON WEBSITE

The Dy. Director, Central Sanskrit University, Janakpuri, New Delhi on behalf of Vice Chancellor CSU invites Percentage Rate sealed bids from enlisted and eligible contractors of CPWD and those of appropriate list of M.E.S., BSNL, Railway, Public Undertakings/autonomous bodies and Delhi Govt.'s Department dealing with building and roads, for the following work: -

S. No.	NIT No.	Name of Work & Location	Estimated Costput to bid	Earnest	Period of completion	Last date &time of submission ofbid, EMD, e-tender processing feeand other Document asspecified in the press notice	Time & date of opening ofbid
1	01/CSU/HQ/EC/25-26	Renovation of Ground Floor Space (Lift Side) for Vice Chancellor's	Rs. 54,30,006/-	Rs. 1,08,600/-	4 Months	Up to 15.00 hrs on -11.08.2025 14.08.2025	15.30 hrs on - <del>11.08.202</del> 5 いち・2025

- 1. The intending bidder must read the terms and conditions of CPWD-7 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
- 2. Information and Instructions for bidders posted on web site shall form bid document.
- 3. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website Central Sanskrit University, Delhi i.e. <a href="https://www.sanskrit.nic.in">www.sanskrit.nic.in</a> and Central Public Procurement Portal (CPPP).
- 4. The bid of only those <u>eligible bidders</u> shall be considered who have submitted original EMD in shape of Insurance surety Bonds or Account Payee Demand Draft or Fixed Deposit Receipt (FDR), Banker's Cheque or Bank Guarantee issued by a Commercial bank towards EMD in favour of Registrar, CSU, and other documents as specified.
- 5. The Earnest Money Deposit (EMD) and the sealed financial bid shall be submitted in separate envelopes. These two envelopes must then be placed together inside a single larger envelope. Only the tenders of bidders who meet the eligibility criteria and whose EMD is found to be in proper order shall be opened.
- 6. Contractor must ensure to quote percentage rate of civil & electrical component as given in attached proform.
- 7. Contractor should quote the percentage rate to two places of decimal only.
- 8. The officer inviting tenders shall have the right of rejecting all or any of the tenders and will not be bound to accept the lowest or any other tender.

secrecy of the tender documents, drawings or other records connected with the work given to them. The unsuccessful tenderers shall return all the drawings given to them. Otherwise, the department may reject the bid.

- 9. The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices quoted in the Schedule of Quantities, which rates and prices shall, except as otherwise provided, cover all his obligations underthe Contract and all matters and things necessary for the proper completion and maintenance of the works.
- 10. If there are varying or conflicting provisions made in any one document forming part of the contract, the Accepting Authority shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on the contractor.
- 11. Any error in description, quantity or rate in Schedule of Quantities or any omission there from shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the works comprised therein according to drawings and specifications or from any of his obligations under the contract.

#### List of Documents to be submitted along with the bid:

- 1. Earnest Money in form of Insurance surety Bonds or Account Payee Demand Draft or Fixed Deposit Receipt (FDR), Banker's Cheque issued in favour of Registrar, CSU, Head Quarter New Delhi-110058
- 2. Enlistment Order of Contractors in appropriate category.
- Experience certificate along with affidavit as per para 1.1 & 1.2 respectively of CPWD -6
  Tendering.
- 4. GST Registration Certificate, if already obtained by the bidder

If the bidder has not obtained GST registration "as applicable" then he shall submit the following undertaking with bid document.

"If work is awarded to me, I/we shall obtain GST registration Certificate, as applicable, within one month from the date of receipt of award letter or before release of any payment by CSU, whichever is earlier, failing which I/We shall be responsible for any delay in payments which will be due towards me/us on accounts of the work executed and/or for any action taken by CSU or GST department in this regard.

"As applicable" means-GST registration is required in the State/UT from where the contractor makes a taxable supply of goods or services or both, and not in other states.

5. Contact details (Address, Telephone/Mobile No., E-mail address etc.) of the applicant.

DEPUTY DIRECTOR CSU

# CPWD-6 FOR TENDERING Central Sanskrit University (Under Ministry of Education, Govt. of India)

#### NOTICE INVITING TENDER

Percentage rate sealed bids are invited on behalf of Vice-Chancellor, CSU from enlisted and eligible contractors of CPWD and those of appropriate list of M.E.S., BSNL, Railway, Public Undertakings/ Autonomous bodies and Delhi Govt.'s Department dealing with building and roads, for the work of "Renovation of Ground Floor Space (Lift Side) for Vice Chancellor's Secretariat."

The enlistment of the contractors should be valid on the last date of submission of tenders.

In case the last date of submission of tender is extended, the enlistment of contractor should be validon the original date of submission of tender.

- 1. The work is of **Estimated Cost: Rs. 54,30,006/.** This estimate, however, is given merely as a roughguide.
  - 1.1 Intending bidders is eligible to submit the bid provided he has definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority, of having satisfactorily completed similar works of magnitude specified below:
    - Criteria of eligibility for submission of bid documents
    - Three similar works each of value not less than Rs 21,72,000/- or two similar works each of value not less than Rs 32,58,000/- or one similar work of value not less than Rs 43,44,000/- during the last 7 years ending last day of the month previous to the one in which tenders are invited.
  - 1.2 To become eligible for issue of bid, the bidders shall have to furnish an affidavit as under:
    - I/We undertake and confirm that eligible similar works(s) has/have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then I/we shall be debarred for bidding in CSU in future forever. Also, if such a violation comes to the notice of University before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.
  - 1.3 Agreement shall be drawn with the successful bidders on prescribed Form No. CPWD 7 (as amended up to last date of submission of bid & along with modification as appended herewith as Annexure-I) which is available as a Govt. of India Publication and also available on website www.cpwd.gov.in. Bidder shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
- 2. The time allowed for carrying out the work will be 4 Months from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.
- 3. The site for the work is available.

- 4. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents except Standard General Conditions of Contract Form can be seen downloaded on website www.sanskrit.nic.in and Central Public Procurement Portal (CPPP) free of cost.
- The bid submitted shall become invalid if:
  - (i) The bidder is found ineligible.
  - (ii) The bidder does not submit all the documents as stipulated in the bid documents.
  - (iii) If any discrepancy is noticed in the submitted documents.
  - (iv) If a tenderer quote nil rates against each item in item rate tender or does not quote any percentage above or below on the total amount of the tender or any section / sub head in percentage tender, the tender shall be treated as invalid and will not be considered as the lowest tender.
- 6. The contractor whose bid 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 Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt or Bank Guarantee from any of the Commercial Bank's in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F', including the extended period if any, then the contractor shall be suspended for one year and shall not be eligible to bid for CSU tenders from date of issue of suspension order. *Contractor whose bid is accepted will also required to furnish either copy of applicable licenses/registrations or proof for applying obtaining labour licenses, registration with EPFO, ESIC and BOCW Welfare Board including Provident Fund Code No. if applicable and also ensure the compliance of aforesaidprovisions by the sub contractors, if any engaged by the contractor for the said work and programme chart (Time and Progress) within the period specified in Schedule F.*
- 7. The description of the work is as follows:

#### "Renovation of Ground Floor Space (Lift Side) for Vice Chancellor's Secretariat"

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

- 8. The competent authority on behalf of Vice-Chancellor does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidders shall be summarily rejected.
- 9. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable for rejection.
- 10. The competent authority on behalf of Vice-Chancellor reserves to himself the right of accepting the whole or any part of the bid and the bidder shall be bound to perform the same at the rate quoted.
- 11. The contractor shall not be permitted to bid for works in the CSU campus responsible for award and execution of contracts, in which his near relative is posted as an officer in any capacity between the grades of Director and Assistant (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 officer in the CSU or in the Ministry of Education. In case of any breach of this condition by the contractor, the contract is liable to be cancelled.
- 12. No Officer employed in Engineering or Administrative duties in an CSU 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 any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the bid or engagement in the contractor's service.
- 13. The bid for the works shall remain open for acceptance for a period of Sixty (60) days from the date of opening of bid. If any tenderer withdraws his tender or makes any modification in the terms & conditions of the tender which is not acceptable to the department within 7 days after opening of tender (excluding date of opening of tender)
  - Then the tenderer be suspended for one year and shall not be eligible to bid for CSU tenders from date of issue of suspension order.
- 14. This Notice Inviting Tender shall form a part of the contract document. The successful bidder/contractor, on acceptance of his bid by the Accepting Authority shall within 7 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 bid at the time of invitation of bid and the rates quoted at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.
  - b) Standard C.P.W.D. Form 7 (Amended up to the last date of submission of bid along with modifications)
- 15. In the event of prolongation of agreement due to delay or reduction in the scope of work, no claim on a/c of reduction in the scope of work, loss of business, loss of profit consequently, overheads and anytype of interest etc. will be entertained.

DEPUTY DIRECTOR, CSU

C.P.W.D.- 7
Central Sanskrit University
(Under Ministry of Education,
Govt. of India)

STATE: - DELHI

CAMPUS: - CSU HeadQuarter

BRANCH: - B&R

Region: - JANAKPURI

Percentage Rate Tender & Contract for Work: Renovation of Ground Floor Space (Lift Side) for Vice Chancellor's Secretariat

(i) To be submitted at Central Sanskrit University, Headquarter Office, New Delhi by 15.00 hrs on 14.08.2025. 14.08.2025

14.08.2025

(ii) To be opened in presence of tenderers who may be present at 15.30 hrs on 11.08.2025 in the office of Deputy Director, CSU, HQ Office, Janakpuri, New delhi-110058.

#### **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, of 2023 (GCC Maintenance Works 2023) with amendments up to the last date of submission of tenders, 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 Renovation of Ground Floor Space (Lift Side) for Vice Chancellor's Secretariat 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 Sixty (60) days from the due date of opening of bid and not to make any modifications in its term & conditions.

The Performance Guarantee shall be a guarantee to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be in accordance with the provision contained in Clause 12.

Further, I/We agree that in case of forfeiture of 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 CSU in future forever. Also, if such a violation comes to the notice of university before date of start of work, the Engineer-in-Charge shall be free to cancel the agreement and to forfeit the entire amount of Performance Guarantee.

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

Dated: #.....

Witness:

Address: #

Occupation: #

# To be filled in by the contractor

Signature of Contractor #

Postal Address #

## **ACCEPTANCE**

No.		-	vided in the letters men Vice Chancellor CSU *	,
(Rupees	**********			)*
The letters referred			of this contract agreemer	ıt:
(a)				
(b)				
(c)				
For & on behalf of V ChancellorSignatur				
Dated:*	•••		Designation	
*				

\*To be filled in by the Engineer-in-charge

#### **PROFORMA OF SCHEDULES**

#### SCHEDULE 'A'

Schedule of quantities

Attached (Civil Page 62 to 100)

#### SCHEDULE 'B':

Schedule of materials to be issued to the contractor

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

#### SCHEDULE 'C'

Tools and plants to be issued to the contractor

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

#### SCHEDULE 'D'

Extra schedule for specific requirement/documents for the work, if any NIL

SCHEDULE 'E': Schedule of component of other materials, labour, POL etc., for price escalation. Reference to General Conditions of contract: Applicable GCC is (GCC Maintenance works 2023) as amended/modified upto last date of Submission of bid.

Name of work : Renovation of Ground floor space (lift side) for

Vice Chancellor secretariat

(i) Estimated cost of work : Rs. 54,30,006/-

(ii) Earnest Money : **Rs.** 108600/-

(iii) Performance Guarantee : 5% (Five percent) of tendered Value.

(iv) Security Deposit : 2.5% (Two-point Five percent) of tendered Value.

SCHEDULE 'F'

General Rules & Directions

(i)	Officer inviting tender:	DEPUTY DIRECTOR, CSU, Head Quarter, New Delhi-110058
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Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clauses 12.2 & 12.3. See below - Not applicable

# Definition

2(vi)	Engineer-in-charge(Civil)	DEPUTY DIRECTOR, CSU, Head Quarter		
	Engineer-in-charge(Electrical)	DEPUTY DIRECTOR, CSU, Head Quarter		
2(viii)	Accepting Authority	REGISTRAR, CSU, Head Quarter		
2(x)	Percentage on cost of materials and labour to cover all overheadand profits	15%		
2(x)(b)	Standard Schedule of Rates			
	1) For Civil Work	DSR 2023		
	2) For Elect Work	DSR 2022 & 2025		

2(xi)	Department	CENTRAL SANSKRIT UNIVERSITY
9(ii)	Standard CPWD	Standard CPWD contract Form GeneralCondition of Contract
	contract Form	Maintenance Works 2023, CPWD form 7/8 as modified and corrected upto previous day of the last date of submission of tender.

# Clause 1

(i)	Time allowed for submission of Performance Guarantee, program chart (Time and Progress) and applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board or proof of applying thereof from the date of issue of letter of acceptance			
(ii)	Maximum allowance extension with late fee @ 0.1% per day of Performance Guarantee amount beyond the period provided in (i) above	3 days		

# Clause 2

(i)	Authority	for	fixing	compensation	Registrar, CSU,56-57, Institutional
	under clause	e 2			Area, JanakPuri, New Delhi-58

# Clause 2A:

# Not Applicable

# Clause 5:

(i)	Authority to convey the decision of shifting of milestone and extension of time	Engineer in Charge		
(ii)	Authority to decide rescheduling of milestone and extension of time	Engineer in Charge		
(iii)				

#### MILE STONE (S) AS PER TABLE GIVEN BELOW Table of Milestone (s)

S.No.	Description of Milestone (Physical)	Time allowed in days (from date of start)	Amount of tendered cost to be with-held in case of non achievementofmilestone
1.	1/8 <sup>th</sup> (of whole work) *	1/4 <sup>th</sup> (of stipulated period)	In the event of not achieving the necessary progress as accepted from the running
2.	3/8 <sup>th</sup> (of whole work) *	1/2 <sup>th</sup> (of stipulated period)	payments, 1.25% of the tendered value of work will be withheld for failure of each
3.	3/4th (of whole work) *	3/4th (of stipulated period)	milestone.
4.	Complete work*	Stipulated period	

<sup>\*</sup> Calculate on the basis of work done amount.

Time allowed for execution of work:- 4 Months.

Clause 6: - Computerized Measurement Book.

Mode of measurement:

#### Clause 7

Gross work to be done together with	Rs. 10 Lakhs
net payment /adjustment of advances	
for material collected, if any, since the	
last such payment for being eligible to	
interim payment.	

#### Clause 7 A

No Running Account Bill shall be paid for the work till the applicable licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are submitted by the contractor to Engineer-in-charge.

Applicable

#### Clause 10A

List of testing equipment to be provided.

As per site requirement

#### CLAUSE 10B (i)

Whether applicable clause 10-B(i) shall be	Not Applicable		
CLAUSE 10C	Not Applicable		
Clause 10CA	Not Applicable		
CLAUSE 10 (CC):	Not Applicable		

#### Clause 11

	Specifications to be followed forexecution of work:				
	a) Civil work	(a) Civil work: CPWD Specifications 2019			
	b) Electrical Work	Volume- I & II with correction slips issued up to the last date of submission of bid.  (b) Electrical work General Specifications for Heating, Ventilation & Air-Conditioning (HVAC) -2024			
	(c) CPWD Latest General Specifications for Electrical Works(Part I to Part VII)				

#### Clause 16

(i)	Competent Authority for	deciding	Registrar, CSU,56-57, Institutional Area,
	reduced rates.		JanakPuri, New Delhi-58

#### Clause 18

List of mandatory machinery, tools & plants to be

deployed by the contractor at site: - As per site requirement

Clause 19C: Engineer-in-Charge to decide penalty for each default

Clause 19D: Engineer-in-Charge to decide penalty for each default

Clause 19G: Engineer-in-chargefor each default:

Clause 19K: Engineer-in-Charge to decide penalty for each default

Clause 25 Constitution of Dispute Redressal Committee

1.	Conciliator	Prof
2.	Arbitrator Appointing Authority	Hon'ble Vice Chancellor
3.	Place of Arbitration	New Delhi

#### CLAUSE 32-

Requirement of Technical Representative (s) and recovery Rate

S. No	Minimum qualification of	Discipline	Designation (Principal Technical/ Technical	chnical/ Technical experience		Rate at which recovery shall be made from the	
	Technical representative		representative)	contractor th	e event of	fulfilling provision of clause 32) Figures words	
1	Graduate Engineer or Diploma Engineer	Civil	Project Planning/quality billing Engineer	2 or 5 Respectively	1 No	15,000/- Per Month (Rs.Fifteen Thousand Per Month)	

Diploma holder with minimum 10 year relevant experience with a reputed construction co. can be treated at par with Graduate Engineer for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50% of requirement of Engineer-In-Charge.

#### **CLAUSE 38**

(i)	(a) Schedule/statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rates	
(ii)	Variations permissible on theoretical quantities	
	(a) Cement For works with estimated cost put to tender more than Rs. 25 Lakhs For works with estimated cost put to tender	3% plus/minus
	more then Rs. 25 Lakhs.	2% plus/minus
	(b) Bitumen all works	2.5% plus only & nil on minus side
	(c) Steel reinforcement and structural steel sections for each diameter, section and category	2% plus/minus
	(d) All other materials	Nil

Dy. Director, CSU

#### Annexure-C1

#### Form of Application by the Contractor for seeking Extension of Time

- 1. Name of Contractor:
- 2. Name of work as given in the agreement:
- 3. Agreement No.:
- 4. Estimated amount put tender:
- 5. Date of commencement of works as per agreement:
- 6. Period allowed for completion of work as per agreement:
- 7. Date of completion stipulated in agreement:
- 8. Period for which extension of time if has been given by authority in Schedule-F Previously :

	Director's Letter No. Extension and date		n granted	
		Months	Days	
(a) 1st Extension				
(b) 2nd Extension				
(c) 3rd Extension				
(d) Total extension previously given				

- Reasons for which extension have been previously given (Copies of the previous applications should beattached):
- 10. Period for which extension if applied:
- 11. Hindrances on account of which extension is applied for which dates on which hindrances occurred and the period for which these are likely to last (for causes under clause 5.2/ and 5.3):

Submitted to the authority indicated in Schedule "F" with copy to the Engineer –in –Charge

#### **GENERAL TERMS AND CONDITIONS**

- 1 The order of preference in case of any discrepancy may be read as the following:
  - i) Nomenclature of items as per schedule of quantities.
  - ii) Particular specification and special condition, if any.
  - iii) CPWD specifications. Architectural Drawings.

Indian standard specifications of B.I.S.Sound Engineering Practice.

A reference made to any Indian Standard specification in these documents, shall imply to the latest version of that standard. Including such revision/amendments as issued by the bureau of Indian standard upto last date of receipt of tenders. The contractor shall keep at his own cost all such publications of relevant Indian standard applicable to the work at site.

- Except for the items, for which particular specifications are given or where it is specifically mentioned otherwise in the description of items in the schedule of quantities the work shall generally be carried out in accordance with the "CPWD specifications 2019 Vol. 1 and Vol. 2 (with upto date correctionsslips). (Hereinafter to be referred to as CPWD specifications) and instructions of Engineer-in-Charge. Wherever CPWD specifications are silent the latest IS codes/specification shall be followed.
- 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.
- a) The contractor (s) shall inspect the site of work before tendering and acquaint himself with the site conditions and no claim on this account shall be entertained by the department.
  - b) The contractor (s) shall get himself acquainted with nature and extent of the work and satisfy himself about the availability of materials from kiln or approved quarries for collection and conveyance of materials required for construction.
- The contractor (s) shall give to the Municipality, Police and other authorities all necessary notices etc. that may be required by law and obtain all requisite Licenses for temporary obstructions, enclosures etc. and pay all fee, taxes and charges which may be leviable on account of these operations in executing the contract. He shall make good any damage to the adjoining property whether public or private and shall supply and maintain light and other illumination on for cautioning the public at night.
- 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.
- The contractor shall make his own arrangement for obtaining electric connection(s) if required and make necessary payments directly to the department concerned.
- Some restrictions may be imposed by the security staff etc. on the working and for movement of labour, materials etc. The contractor shall be bound to follow all such restrictions/instructions and nothing extra shall be payable on account of the same.

- The contractor shall fully comply with all legal orders and directions of the Public or local authorities or municipality and adhere by their rules and regulations and pay all fees and charges for which he may be liable in this regard. Nothing extra shall be paid/reimbursed for the same.
- 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.
- The contractor shall give a performance test of the entire installation(s) as per standing specifications before the work is finally accepted by making his own arrangements for water supply, electricity etc. and nothing extra whatsoever shall be payable for the same.
- If as per local Municipal regulations huts for labourers are not to be erected at the site of work, the contractor shall be required to provide such accommodation at a place outside the campus as is acceptable to the local body and nothing extra shall be paid on this account.
- 13 It shall be ensured by the contractor that no electric live wire is left exposed or unattended to avoid any accidents in this regard.
- 14 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 withthe tender and Architectural drawings relating to the relevant item, the former shall prevail unless otherwise given in writing by the Engineer-in-charge.
- 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.
- 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.
- 17 The contractor shall issue Identity card to all labourers and engineers/staff engaged by him and nothing shall be paid on this account.
- If the work is carried out in more than one shift or during night, no claim on this accounts shall be entertained.
- 19 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 athis own expense. The contractor shall not store materials or otherwise occupy any part of the site in amanner likely to hinder the operation of such services.
- 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 client department. No extra payment shall be made on this account.
- 21 The contractor shall bear all incidental charges for cartage, storage and safe custody of materials issued by department.

- 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.
  - Any trenching and digging for laying sewer lines/water lines/cables etc. shall be commenced by the contractor only when all men, machineries and materials have been arranged and closing of the trench(s) thereafter shall be ensured within the least possible time.
- 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.
- 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.
  - 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.
- Advance payment in no case shall be made more than 20% of the tendered amount in construction work.
- If the bill is not submitted by the agency within stipulated time period after receiving the advance payment, then 15% pa simple interest shall be levied for default period.
- 27. In the event of prolongation of agreement due to delay or reduction in the scope of work, no claim on a/c of reduction in the scope of work, loss of business, loss of profit consequently, overheads and any type of interest etc. will be entertained.

#### SPECIAL CONDITIONS

- 1.1 GENERAL: -The Contractors are advised to inspect and examine the site and its surroundings and satisfy themselves with the nature of site, the means of access to the site, the constraints of space for stacking material / machinery, labour etc. constraints put by local regulations, if any, weather conditions at site, general ground / subsoil conditions etc. or any other circumstances which may affect or influence their bids. The site will be provided in parts.
- 1.2 DRAWING: Wherever the BOQ item stipulates design, the contractor shall have to supply designs and shop drawings which shall have to be vetted by CPWD or any other Institute of repute as approved by Engineer-in-Charge, and all costs towards the same, including charges for vetting shall be deemed to have been included in the quoted rates
- 1.3 Nomenclature: -The nomenclature of the item given in the schedule of quantities gives in general the work content but is not exhaustive i.e. does not mention all the incidental works required to be carried out for complete execution of the item of work. The work shall be carried out, all in accordance with true intent and meaning of the specifications and the drawings taken together, regardless of whether the same may or may not be particularly shown on the drawings and/or described in the specifications, provided that the same can be reasonably inferred there from may be several incidental works, which are not mentioned in the nomenclature of each item but will be necessary to complete the item in all respects. All these incidental works / costs which are not mentioned in item nomenclature but are necessary to complete the item shall be deemed to have been included in the rates quoted by the contractor as percentage rate for various items in the schedule of quantities. No adjustment of rates shall be made for any variation in quantum of incidental works due to variation / change in actual working drawings. Also, no adjustment of rates shall be made due to any change in incidental works or any other deviation in such element of work (which is incidental to the items of work and are necessary to complete such items in all respects) on account of the directions of Engineer-in-Charge. Nothing extra shall be payable on this account.
- 1.4 Specifications: -The work shall generally be carried out in accordance with the "CPWD Specifications 2019 Vol. I & II" with correction slips issued up to the last date of submission of bids, additional/Particular Specifications, Architectural /Structural drawings and as per instructions of Engineer-in-Charge. Any additional item of the work, if taken up subsequently, shall also confirm to the relevant CPWD specifications as mentioned above. Working (both Architect and structural) drawings will be released progressively to the contractor commensurate to the construction schedule approved by Engineer-in-charge.
- 1.5 The several documents forming the bid are to be taken as mutually complementary to one another. Detailed drawings shall be followed in preference to small scale drawings and figured dimensions in preference to scale dimensions.
- 1.6 The works to be governed by this contract shall cover delivery and transportation up to destination, safe custody at site, insurance, erection, testing and commissioning of the entire works. The works to beundertaken by the contractor shall inter-alia include the following:
- 1.6.1 Preparation of detailed SHOP drawings and AS BUILT drawings wherever applicable.
- 1.6.2 Obtaining of Statutory permissions wherever applicable and required.
- 1.6.3 Pre-commissioning tests as per relevant standard specifications, code of practice, Acts and Rules wherever required.

1.6.4 Warranty obligation for the equipment's and / or fittings/fixtures supplied by the contractor: Contractor shall provide all the shop drawings or layout drawings for all the coordinated services before starting any work or placing any order of any of the services etc. These shop drawings/layout drawings shall be got approved from Engineer-in-charge before implementation and this shall be binding on the contractor.

The contractor shall submit material submittals along with material sample for approval of Engineer-in- Charge prior to delivery of material at site.

The work shall be carried out in accordance with the approved architectural drawings, structural drawings, and service 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, nomenclature of items and specifications etc. issued for the work and satisfy himself that the information available from there is complete and unambiguous. The figure and written dimension of the drawings shall be superseding the measurement by scale. 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 occurring by the commencement of work on the basis of any erroneous and or incomplete information and no claim whatsoever shall be entertained by the department on this account.

The delay caused on account of non-timely action by the contractor in resolution of the differences whatsoever shall not be considered as valid ground for extension of time unless otherwise accepted by Engineer in charge.

Unless otherwise provided in the Schedule of quantities vide Part-B the rates bided by the contractor shall be all inclusive and shall apply to all heights, lifts, leads and depths of the building and nothing extra shall be payable to him on this account. Payment for centering, shuttering, however, if required to be done for floor heights greater than 3.5m shall be admissible at rates arrived in accordance with clause 12 of the agreement if not already specified.

Stacking of materials:-The Contractor(s) shall take instructions from the Engineer-in-Charge regarding collection and stacking of materials at suitable place. No stacking of materials or excavated earth or building rubbish shall be stacked on areas where other buildings, roads, services and compound walls are to be constructed. The stacking shall take place as per stacking plan. However, if any change is required, the sameshall be done with the approval of Engineer-in-Charge.

The Contractor shall bear all incidental charges for cartage, storage and safe custody of materials, if any, issued by department as well as to those materials also arranged by the contractor.

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

Performance Test:-The contractor shall give performance test of the entire installation(s) as per the specifications in the presence of the Engineer-in-charge or his authorized representative before the work is finally accepted and nothing extra what-so-ever shall be payable to the contractor for such test.

Licensed Plumber:-Water tanks, taps, water supply & drainage pipes, fittings & accessories should conform to bye-laws of local body/corporation, where CPWD specifications are not

available. The Contractor should engage approved, licensed plumbers for the work and get the materials (fixtures/fittings) tested, by the municipal Body/ Corporation authorities wherever required at his own cost. The Contractor shall submit for the approval of the Engineer-in-Charge, the name of the plumbing agency (along with their working experience in recent past) proposed to be engaged by him.

The contractor shall make his own arrangements for water and for obtaining electric connections if required and make necessary payments directly to the State Govt. departments concerned. Contractor shall get the water tested from laboratory approved by the Engineer-in- charge at regular interval as per the CPWD Specifications 2019. All expenses towards collection of samples, packing, transportation and testing chargesetc. shall be borne by the contractor.

#### 1.12 PREVENTION OF NUISANCE AND POLUTION CONTROL

The contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the owners, tenants or occupiers of adjacent properties and to the public in general and to prevent any damage to such properties from pollutants like smoke, dust, noise. The contractor shall use such methodology and equipment so as to cause minimum environmental pollution of any kind during construction and minimum hindrance to road users and to occupants of the adjacent properties or other services running adjacent/near vicinity. The contractor shall make good at his cost and to the satisfaction of the Engineer-in-Charge, any damage to roads, paths, cross drainage works or public or private property whatsoever caused due to the execution of the work or by traffic brought thereon by the contractor. All waste or superfluous materials shall be carried away by the contractor, without any reservation, entirely to the satisfaction of the Engineer- in-Charge.

- 1.13 Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as faras possible is caused to the nearby occupants/users of building(s), if any.
- 1.14.1 The Contractor(s) shall take all precautions to avoid accidents by exhibiting necessary caution boards day and night. In case of any accident of labours / contractual staffs the entire responsibility will rest on the part of the contractor and any compensation under such circumstances, if becomes payable, shall be entirely borne by the contractor.
- 1.14.2 In the event of any restrictions being imposed by the Security agency of Client Department / CPWD/ Delhi Traffic or any other local authority having jurisdiction in the area on the working or movement of labour /material, the contractor shall strictly follow such restrictions and nothing extra shall be payable to the contractor on such accounts. The loss of time on these accounts, if any, shall have to be made up by augmenting additional resources whatever required.
- 1.14.3 The contractor shall be responsible for the watch and ward/guard of the safety of all fittings and fixtures including all equipments, services provided by him against pilferage and breakage during the period of Installations and thereafter till the building is physically handed over to the Client Department. No extra payment shall be made on this account and no claim shall be admissible on this account.
- 1.15 Labour Hut:-If as per the rules of the local authority, the huts for labour are not to be erected at the site of work by the contractors, the contractor is required to provide such accommodation as is acceptable to local bodies and nothing extra shall be paid by CPWD on this account. No accommodation is available at the site of work. He shall make his own arrangements for stores, field office etc. Before tendering, he shall visit the site and assess the

manner in which he is able to arrange the above facilities. The Engineer-in- Charge shall in no way be responsible for any delay on this account and no claim, whatsoever, on this account shall be entertained.

- 1.16 Natural Calamities: -No payment shall be made for any damage caused by rain, snowfall, flood or any other natural calamity, whatsoever during the execution of the work. The contractor shall be fully responsible for any damage to the govt. property and the work for which payment has been advanced to him under the contract and he shall make good the same at his risk and cost. The contractor shall be fully responsible for safety and security of his material, T&P/Machinery brought to the site by him.
- 1.17 Godowns:-The contractor shall construct suitable godowns, yard at the site of work for storing all other materials so as to be safe against damage by sun, rain, damages, fire, theft etc. at his own cost and also employ necessary watch and ward establishment for the purpose at his cost.
- 1.18 Material check before use:-All materials obtained from contractor shall be got checked by the representative of Engineer-in-Charge on receipt of the same at site before use.
- 1.19 Royalty:-Royalty at the prevalent rates shall have to be paid by the contractor on all the boulders, metals, shingles sand and bajri etc. collected by him for the execution of the work, direct to the Revenue authority or authorized agent of the State Government concerned or Central Government.

Royalty at the prevalent rates shall be paid by the Contractor or the ready mix concrete (RMC) supplier as per the terms of supply between them, on all materials such as boulders, metals, all sizes stone aggregates, brick aggregates, coarse and fine sand, moorum, river sand, gravels and bajri etc. collected by him for the execution of the work, directly to the revenue authority of the state government concerned. Further, contractor needs to submit proof of submission of full royalty to the state government or local authority. Nothing extra shall be payable on this account.

1.20 The Contractor shall keep himself fully informed of all acts and laws of the Central & State Governments, all orders, decrees of statutory bodies, tribunals having any jurisdiction or authority, which in any manner may affect those engaged or employed and anything related to carrying out the work. All the rules & regulations and bye-laws laid down by Collector / DDA/NDMC/ State Govt. and any other statutory bodies shall be adhered to, by the contractor, during the execution of work. The Contractor shall also adhere to all traffic restrictions notified by the local authorities.

All statutory taxes, levies, charges (including water and sewerage charges, charges for temporary service connections and / or any other charges) payable to such authorities for carrying out the work, shall be borne by the Contractor. The water charges (for municipal water connection as well as tanker water) shall be borne by the contractor. Also, if the contractor obtains water connection for the drinking purposes from the municipal authorities or any other statutory body, the consequent sewerage charges shall be borne by the contractor. The Contractor shall arrange to give all notices as required by any statutory / regulatory authorityand shall pay to such authority all the fees that is required to be paid for the execution of work. He shall protect and indemnify the Department and its officials & employees against any claim and /or liability arising out of violations of any such laws, ordinances, orders, decrees, by himself or by his employees or his authorized representatives. Nothing extra shall be payable on these accounts. The fee payable to statutory authorities for obtaining the various permanent service connections and Occupancy Certificate for the building shall be borne by the Department.

#### 1.21 INTEGRATED SERVICE DRAWINGS

Before taking up the work, the contractor shall plan various civil and electrical services and mobilize his resources as per the Integrated drawings and as per the site conditions to facilitate convenient execution, installation as well as maintenance of these services. Nothing extra shall be payable on this account.

#### 1.22 TOOLS AND PLANTS

The contractor should have own construction equipment required for the proper and timely execution of the work. Nothing extra shall be paid on this account.

No tools and plants including any special T&P etc. shall be supplied by the Department and the Contractor shall have to make his own arrangements at his own cost. No claim of hindrance (or any other claim) shallbe entertained on this account.

1.23 The Contractor shall maintain all the work in good condition till the completion of entire work. The Contractor shall be responsible for and shall make good, all damages and repairs, rendered necessary due to fire, rain, traffic, floods or any other causes. The Engineer-in-Charge shall not be responsible for any claims for injuries to person/workmen or for structural damage to property happening from any neglect, default, want of proper care or misconduct on the part of the Contractor or of any other of his representatives, in his employment during the execution of the work. The compensation, if any, shall be paid directly to the Department / authority / persons concerned, by the Contractor at his own cost.

# 1.24 CO-OPERATION WITH OTHER CONTRACTORS/SPECIALIZED AGENCIES/SUB-CONTRACTORS

The Contractor shall take all precautions to adhere by the environmental related restrictions imposed by any statutory body having jurisdiction over work site as well as prevent any pollution of streams, ravines, river bed and waterways. All waste or superfluous materials shall be transported by the Contractor, entirely to the satisfaction of the Engineer- in- Charge and disposed at designated places only. Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to the occupants / users of adjoining buildings. No claims whatsoever on account of site constraints mentioned above or any other site constraints, lack of public transport, inadequate availability of skilled, semi-skilled or unskilled workers in the near vicinity, non- availability of construction machinery spare parts and any other constraints not specifically stated herein, shall be entertained from the Contractor. Therefore, the bidders are advised to visit site and get first-hand information of site constraints. Accordingly, they should quote their bids. Nothing extra shall be payable on this account.

The Contractor shall cooperate with and provide the facilities to the sub-Contractors and other agencies working at site for smooth execution of the work. The contractor shall indemnify the CPWD against any claim(s) arising out of any disputes. The Contractor shall:

Allow use of scaffolding, toilets, sheds etc.

Properly co-ordinate their work with the work of other Contractors.

Provide control lines and benchmarks to his Sub-Contractors and the other Contractors. Provide electricity and water at mutually agreed rates.

Provide hoist and crane facilities for lifting material at mutually agreed rates.

Co-ordinate with other Contractors for leaving inserts, making chases, alignment of services etc.

at site. Adjust work schedule and site activities in consultation with the Engineer-in- Charge and other Contractorsto suit the overall scheduled completion.

Resolve the disputes with other Contractors/ sub-contractors amicably and the Engineer-in-Charge shall notbe made an intermediary or an arbitrator.

The work should be planned in a systematic manner so as to ensure proper co-ordination of various disciplines viz. water supply, drainage, rain water harvesting, electrical, firefighting, information technology, communication & electronics and any other services.

Other Associated agencies will also simultaneously execute and install the works of other-disciplines for the work and the contractor shall afford necessary facilities for the same. The contractor shall leave such recesses, holes, openings trenches etc. as may be required for such related works (for which inserts, sleeves, brackets, conduits, base plates, 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 and brick work, if required, and nothing extra shall be payable on this account.

The contractor shall conduct his 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 in a proper coordinated manner and shall perform it in proper sequence to the complete satisfaction of others.

#### 1.25 SUPERVISION OF WORK

The Contractor shall depute Site Engineer & skilled workers as required for the work. He shall submit organization chart along with details of Engineers and supervisory staff. It shall be ensured that all decision making powers shall be available to the representatives of the Contractor at work site itself to avoid any likely delays on this account. The Contractor shall also furnish list of persons for specialized works to be executed for various items of work. The Contractor shall identify and deploy key persons having qualifications and experience in the similar and other major works, as per the field of their expertise. If during the course of execution of work, the Engineer-in-Charge is of the opinion that the deployed staff is not sufficient or not well experienced; the Contractor shall deploy more staff or better-experienced staff at site as mentioned in the bid document to complete the work with quality and within stipulated time limit.

#### 1.26 Specialized Agencies

The bid comprises of. civil work. The list of specialized items for civil which are to be got executed throughspecialized agencies are as below:

Fire door shutters.

The specialized agency should have successfully completed works as listed in this tender document elsewhere. If nothing is written then it should have successfully completed, at least one work of similar nature.

The contractor shall submit the following details of the specialized agency before execution of work for approval of Engineer in charge.

List of similar works carried out by the agency during the last seven years ending March 2019, along with the name of work, name and address of clients, year of execution, value of work done and brief specification of the work. The credentials for such completed works shall be obtained by the department and got verified from the Project Manager/Executive Engineer concerned.

The main contractor shall submit the credential of specialized agency well in advance as per the direction of Engineer-in-charge. After verification of the same, written approval will be conveyed to main contractor in this regard. The quantum of credentials will be broadly in line with CPWD guidelines. The main Contractor shall not change the specialized agency. However, if the change is warranted, he may do so, with permission of Engineer-in-charge. However before making any such change he has to enter into similar agreement entered into as with the previous agency & submit the same to Engineer – in – Charge for approval. This shall however be without any change in the accepted rates of the contract agreement and without any cost implications to the Department.

It shall be the responsibility of main contractor to sort out any dispute / litigation with the Specialized Agencies without any time & cost overrun to the Department. The main contractor shall be solely responsible for settling any dispute / litigation arising out of his agreement with the Specialized Agencies. The contractor shall ensure that the work shall not suffer on account of litigation/ dispute between him and the specialized agencies / sub- contractor(s).

No claim of hindrance in the work shall be entertained from the Contractor on this account. No extension of time shall be granted and no claim what so ever, of any kind, shall be entertained from the Contractor on account of delay attributable to the selection/rejection of the Specialized Agencies or any dispute amongst them.

#### 1.27 RATE(S) OFFERED

The rate(s) quoted by the bidder, shall be firm and inclusive of all taxes and levies (including GST and construction labour welfare cess).

For completing the work in time, the Contractor might be required to work in two or more shifts (including night shifts). No claim whatsoever shall be entertained on this account, notwithstanding the fact that the Contractor may have to pay extra amounts for any reason, to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour and other statutory bodies regulations and the agreement entered upon by the Contractor with them. All material shall only be brought at site as per program finalized with the Engineer-in- Charge. Any pre-delivery of the material not required for immediate consumption shall not be accepted by the department and thus not paid for.

The percentage (rates) quoted by the Contractor are deemed to be inclusive of site clearance, setting out work (including marking of reference points, center lines of buildings), construction and maintenance of reference bench mark(s), taking spot levels, construction of all safety and protection devices, barriers, barricading, signage, labour safety, labour welfare and labour training measures, preparatory works, working during monsoon, working at all depths, height and location etc. and any other incidental works required to complete this work. Nothing extra shall be payable on this account.

The Contractor shall bear all incidental charges for cartage, storage and safe custody of materials, if any, issued by department as well as to those materials also arranged by the contractor.

Any cement slurry added over base surface (or) for continuation of concreting for better bond is Correction = Nil, Insertion = Nil, Overwriting = Nil, Deletion = Nil,

deemed to have been built in the items and nothing extra shall be payable or extra cement considered in consumption on this account.

#### 1.28 SAFETY MEASURES

(i) Necessary protective and safety equipment's such as helmet, safety shoes, gloves, googles, safety harness etc shall be provided to the Site Engineers, Supervisory staffs, labours, technical staffs of the contractor and also to the Departmental officials supervising / inspecting the works by the Contractor at his own cost and to be used at site. Nothing extra will be paid on this Account.

#### 1.29 QUALITY ASSURANCE

The contractor shall ensure quality construction in a planned and time bound manner. Any substandard material / work beyond set out tolerance limit shall be summarily rejected by the Engineer-in-charge &contractor shall be bound to replace / remove such sub-standard / defective work immediately. If any material, even though approved by Engineer-In-Charge is found defective or not conforming to specifications shall be replaced / removed by the contractor at his own risk & cost.

All materials and fittings brought by the contractor to the site for use shall conform to the samples approved by the Engineer-in-charge which shall be preserved till the completion of the work. If a particular brand of material is specified in the item of work in Schedule of Quantity, the same shall be used after getting the same approved from Engineer-In-Charge. Wherever brand / quality of material are not specified in the item of work, the contractor shall submit the samples as per suggested list of brand names given in the tender document / particular specifications for approval of Engineer-In-Charge. For all other items, materials and fittings of ISI Marked shall be used with the approval of Engineer-in-Charge. Wherever ISI Marked material/ fittings are not available, the contractor shall submit samples of materials / fittings manufactured by firms of repute conforming to relevant specifications or IS codes and use the same only after getting the approval of Engineer-In-Charge.

The Contractor shall procure and provide all the materials from the manufacturers / suppliers as per the list attached with the tender documents, as per the item description and particular specifications for the work. The equivalent brand for any item shall be permitted to be used in the work, subject to documentaryevidence produced by the contactor for non-availability of the brand specified and also subject to independent verification by the Engineer-in-Charge. In exceptional cases, where such approval is required, the decision of Engineer-in- Charge as regards equivalent make of the material shall be final and binding on the Contractor. No claim, whatsoever, of any kind shall be entertained from the Contractor on this account. Nothing extra shall be payable on this account. Also, the material shall be procured only after written approval of the Engineer-in-Charge.

All materials whether obtained from Govt. stores or otherwise shall be got checked by the Engineer-in- Charge or his authorized supervisory staff on receipt of the same at site before use.

The tests, as necessary, shall be conducted in the laboratory approved by the Engineer-in-Charge. The samples shall be taken for carrying out all or any of the tests stipulated in the particular specifications and as directed by the Engineer-in- Charge or his authorized representative.

The Contractor shall at his own risk and cost make all arrangements and shall provide all such facilities including material and labour, the Engineer-in-Charge may require for collecting, Correction = Nil, Insertion = Nil, Overwriting = Nil, Deletion = Nil,

preparing, forwarding the required number of samples for testing as per the frequency of test stipulated in the contract specifications or as considered necessary by the Engineer-in-Charge, at such time and to such places, as directed by the Engineer-in-Charge. Nothing extra shall be payable for the above.

The Contractor or his authorized representative shall associate in collection, preparation, forwarding and testing of such samples. In case he or his authorized representative is not present or does not associate him, the result of such tests and consequences thereon shall be binding on the Contractor. The Contractor or his authorized representative shall remain in contact with the Engineer-in-Charge or his authorized representative associated for all such operations. No claim of payment or claim of any other kind, whatsoever, shall be entertained from the Contractor.

All the testing charges shall be borne by the contractor.

The contractor shall give performance test of the entire installation(s) as per the standing specifications before the work is finally accepted and nothing extra whatsoever shall be payable to the contractor for the test.

#### 1.30 SUBMISSION AND DOCUMENTATION

- (i) The contractor will record measurements for the work carried out by him for making payment as per the CPWD General Conditions of Contract 2023 (Maintenance Work) with correction slips issued upto previous day of the last date of submission of bid.
- (ii) To avoid delay, contractor should submit all samples well in advance so as to give timely orders for procurement.

## 1.31 TEMPORARY WATER/ ELECTRICITY/ TELEPHONE CONNECTION

Arrangement of temporary telephone connection, water and electricity required by Contractor, shall be made by him at his own cost and also necessary permissions shall be obtained by him directly from concerned authorities, under intimation to the Department. Also, all initial cost and running charges, and security deposit, if any, in this regard shall be borne by him. The Contractor shall adhere by all the rules/ bye laws applicable in this regard and he shall be solely responsible for any penalty on account of violation of any of the rules/byelaws in this regard. Nothing extra shall be payable on this account.

The Contractor shall be responsible for maintenance and watch and ward of the complete installation and water / electricity meter and shall also be responsible for any pilferage, theft, damage, penalty etc. in this regard. The Contractor shall indemnify the Department against any claim arising out of pilferage, theft, damage, penalty etc. whatsoever on this account. Nothing extra shall be payable on this account.

The Department shall in no way be responsible for either any delay in getting electric and/or water and/or telephone connections for carrying out the work or not getting connections at all. No claim of delay or any other kind, whatsoever, on this account shall be entertained from the Contractor. Also contingency arrangement of stand-by water & electric supply shall be made by the Contractor for commencement and smooth progress of the work so that work does not suffer on account of power failure or disconnection or not getting connection at all. No claim of any kind whatsoever shall be entertained on this account from the Contractor. Nothing extra shall be payable on this account.

#### 1.32 CLEANLINESS OF SITE

The Contractor shall not stack building material/malba/muck on the land or road of the local development authority or on the land owned by the others, as the case may be. So the muck, rubbish etc. shall be removed periodically as directed by the Engineer-in-Charge, from the site of work to the approved dumping grounds as per the local byelaws and regulations of the concerned authorities and all necessary permissions in this regard from the local bodies shall be obtained by the Contractor. Nothing extra shall be payable on this account. In case, the Contractor is found stacking the building material/malba as stated above, the Contractor shall be liable to pay the stacking charges/penalty as may be levied by the local body or any other authority and also to face penal action as per the rules, regulations and bye-laws of such body or authority. The Engineer –in-Charge shall be at liberty to recover, such sums due but not paid to the concerned authorities on the above counts, from any sums due to the Contractor including amount of the Security Deposit and performance guarantee in respect of this contract agreement.

The contractor shall take instructions from the Engineer-In-Charge regarding collection and stacking of materials at any place. No excavated earth or building rubbish shall be stacked on areas where other buildings, roads, services and compound walls are to be constructed.

The site of work shall be always kept clean due to constraints of space and to avoid any nuisance to the users of buildings in the adjacent plots. The Contractor shall take all care to prevent any water-logging at site. Thewaste water, slush etc. shall not be allowed to be collected at site. It may be directly pumped into the creek with prior approval of the concerned authorities. For discharge into public drainage system, necessary permission shall be obtained from relevant authorities after paying the necessary charges, if any, directly to the authorities. The work shall be carried out in such a way that the area is kept clean and tidy. All the fees/charges in this regard shall be borne by the Contractor. Nothing extra shall be payable on this account.

1.33 INSPECTION OF WORK: In addition to the provisions of relevant clauses of the contract, the work shall also be open to inspection by Senior Officers of CPWD & GRIHA Evaluators, if needed. The contractor shall at times during the usual working hours and at all times at which reasonable notices of the intention of the Engineer-in-charge or other officers as stated above to visit the works shall have been given to the contractor, either himself be present to receive the orders and instructions or have a responsible representative duly accredited in writing, to be present for that purpose.

#### 1.34 GENERAL CLARIFICATIONS

Wherever any reference to any Indian Standards occurs in the documents relating to this contract, the same shall be inclusive of all amendments issued thereto or revisions thereof, if any, up to the date of receipt of bids.

Unless otherwise specified in the schedule of quantities, the rates for all items of work shall be considered, as inclusive of pumping out or bailing out water, if required throughout the construction period for which no extra payment shall be made. This shall also include water encountered from any source such as rains, floods, sub soil water table being high and/or due to any other cause whatsoever.

All stone aggregate and stone ballast shall be of hard stone variety to be obtained from approved quarries. Coarse sand should be obtained from approved sources. The same shall be clean and sharp angular grit type. The coarse sand shall be screened before using, if required. If the sand brought to site is dirty, it must be washed in clean water to bring the sand to the required specifications.

Nothing extra shall be payable on this account.

The rates for all items of work, shall unless clearly specified otherwise, include cost of all operations and all inputs of labour, material, T & P, scaffolding, wastages, watch and ward, other inputs, all incidental charges, all taxes, cess, VAT, duties, levies etc. required for execution of the work.

1.35 Compliance on Construction and Waste Management Rules-2016:

The contractor shall comply the Construction & Demolition Waste Management Rules-2016 notified by the Ministry of Environment and Forest, Government of India (web address: www.moef.gov.in)regarding the disposal of waste. Nothing extra shall be payable on tis account.

# 2.0 PARTICULAR SPECIFICATIONS FOR MAJOR COMPONENT (CIVIL):

- 2.1.1. The work shall in general be carried out in accordance with CPWD specifications for the works 2019Vol. I & II with up to date corrections slips.
- 2.1.2. However, if the said specifications differ from those detailed in the description of any particular itemin the schedule of quantities and specifications finally accepted by the Department, the later shall prevail.
- 2.1.3. Similarly, if the said specifications differ from the particular specifications given hereunder, the particular specifications given hereunder shall prevail.
- 2.1.4. If the detailed description of any particular item in the schedule of quantities and specifications finally accepted by the department differs from the particular specifications given hereunder, the former shall prevail to the extent applicable.
- 2.1.5. If the particular specifications given here under differ from IS Code provisions in any respect, the former shall prevail.

#### 2.2.1 CONDITIONS FOR WATER:

The contractor shall make his own arrangement for providing water for construction and drinking purpose. Water charges shall not be recovered on account of it. Contractor shall get the water tested from any laboratory approved by the Engineer-in-charge at regular interval as per the CPWD Specifications 2019. All expenses towards collection of samples, packing transportation including testing charges etc. shall be borne by the contractor.

#### 2.2 STRUCTURAL STEEL WORK

#### General:

The work includes supplying, providing, fabricating, assembling, and erecting at site Tubular structure steelin the bended profile shaped as per the drawing with special plate connectors, pinion joints, using SAW

/MAW / MIG welding process.Material:

MS Pipes to be used shall be as per IS 1161 YST 310 Gr. or equivalent standards. Manufacturing process shall be of ERW type. Material grade less than YSt 310 shall not be allowed to use in the work. However higher grade shall be permitted without any extra cost to CPWD.

Bolts to be high tensile bolts of minimum 10.9 grades having black phosphate coating. The Bolts should be as per IS 1363/1364. Bolts shall be provided with a washer of sufficient thickness to avoid any threaded portion falling within the thickness of the parts bolted together if required. The bending of the members wherever specified should be in exact profile as per requirement. Correction = Nil, Insertion = Nil, Overwriting = Nil, Deletion = Nil,

Connector should be of high strength, manufactured out of similar grade of pipe material of required dimensions and holes for the bolts in the required position and direction.

The structure should be properly bended, connected welded and aligned to get the required profile. Execution:

Structure work (Built-up section and in pattern as per design and drawings) shall be got executed by specialized agencies having requisite experience in execution of similar nature of works as approved by Engineer-in-Charge.

The structure should be properly bended, connected, welded and aligned to the required profile, i.e. work shall be executed as per designs and drawings. Shop drawings shall be prepared by the agency and got approved by the Engineer-in-Charge.

#### Test & Codes Applicable

Welding shall be in accordance with the following Indian Standards as applicable.

- a) IS: 816 Code of Practice for use of metal arc welding for general construction in mild steel.
- b) IS: 820 Code of Practice for the use of welding in tubular construction.

The joining faces of structural elements shall be made proper by shearing, chipping, gas cutting and grindingetc. and should be dressed properly before welding.

The surface to be welded and adjoining metal for distance of at least 20mm must be cleaned free of rust, scale, paint etc.

Each bead of metal shall have the slag removed by light hammering and wire brushing before the next bead is deposited. The weld must show a good clean contour and on a cut specimen good fusion with parent metal. Before applying paint the weld shall be carefully chipped and wire brushed.

The work includes preparation of shop drawings giving complete information, necessary for the fabrication of the component parts of the structure including the location, type, size, length and detail of all welds, and nuts, bolts, rivets etc. as per as per approved structural drawings. The shop drawings shall be sufficient to ensure convenient/correct assembly and erection at site. These drawings shall also include full details of alljoints, connections, splices etc.

#### Fabrication:

#### Site Arrangements

For fabrication at site suitable yard shall be constructed and separate arrangements for surface preparation &painting shall be made.

#### Assembly

All connections shall be either bolted or welded as shown on the drawings. The contractor shall not redesign or alter any connection without prior approval of the Engineer-in-Charge. The components parts shall be assembled in such a manner that they are neither twisted nor otherwise damaged and shall be prepared such that the specified cambers, if any, are provided. Drifting done during assembly shall not distort the metal or enlarge the holes.

#### Bolting

a. All steel work, which is bolted together, shall be in close contact over the whole surface. Where two bolted surfaces are to be inn permanent contract after assembly, each shall be

thoroughly scraped free of loose sales, dirt and burs and a heavy coat of primer or other approved paint after cleaning and drying.

All bolts shall be provided with washers under the nuts and the washers shall be tapered on the inside of the flanges or RS joists and channels. Bolts and studs shall project not less than one full thread through the nut after tightening. Unless otherwise specified, the ends of the bolts shall be burred after erection of prevent theremoval of nuts.

- b. High strength bolts shall be used in bearing of friction as per the drawings. High strength bolted joints shall be made without the use of erection bolts. Bolts shall be of a length that will extend not less than 10mm beyond the nuts. Bolts shall be entered into the holes without damaging the tread members. They shall be brought tightly together with sufficient high strength fitting up bolts, which shall be re tightened as all the bolts are finally tightened. Bolt heads shall be protected from damage during placing. Bolts that have been completely tightened shall be marked for identification. Bolted parts shall fit solidly together and shall not be separated by interposed compressible materials. The contract surface in high strength bolted connections shall be free of oil, paint, lacquer, loose scale or other coatings. The facing surfaces shall be machined flat. Final tightening of high strength bolts shall be by turn of nut method.
- c. Anchor bolts shall be set by use of templates secured firmly in place to permit true positioning of the bearing plates and assembles. When in drawings anchor bolts are shown to be installed in sleeves, the sleeves shall be filled with grout.

#### Welding

Welding shall generally be done by electric arc process as per IS 816 and IS 823. The electric arc method is usually adopted and is economical. Where electricity for public is not available generators shall be arranged by the contractor at his own cost unless otherwise specified. Gas welding shall only by resorted to using oxyacetylene flame with specific approval of the Engineer-in-charge. Gas welding shall not be permitted for structural steel work Gas welding required heating of the members to be welded along with the welding rod and is likely to create temperature stresses in the welded members. Precautions shall therefore be taken to avoid distortion of the members due to these temperature stresses. The work shall be done as shown in the shop drawings which should clearly indicate various details of the joint to be welded, type of welds, shop and site welds as well as the types of electrodes to be used. Symbol for welding on plans and shops drawings shall be according to IS 813. As far as possible every effort shall be made to limit the welding that must be done after the structure is erected so as to avoid the improper welding that is likely to be done due to heightsand difficult positions on scaffolding etc. apart from the aspect of economy. The maximum dia of electrodes for welding work shall be as per IS 814. Joint surfaces which are to be welded together shall be free from loose mill scale, rust, paint, grease or other foreign matter, which adversely affect the quality of weld and workmanship.

#### Erection

As far as possible, the contractor shall deliver the fabricated steel work to the site in the same sequence as that which he wishes to follow for the erection. Dispatch should be scheduled to avoid cluttering up of the site. The bolts required for erection shall be bagged according to size prior to dispatch.

All structural work shall be erected in accordance with IS: 800, IS: 806 and IS: 1915 and as per the approved erection drawings. The contractor shall be responsible for setting out the works. The

suitability and capacity of all plant and equipment used for erection shall be to the satisfaction of the Engineer-in-Charge. These shall be regularly serviced and maintained. Occupational safety practices shall be strictly adhered to and shall be to the satisfaction of the Engineer-in-Charge.

Individual places shall be plumbed, leveled and aligned. Drifting shall be used only to bring together the several parts. They shall not be used in such manner as to distort or damage the metal. Temporary bracing and staging shall be provided to ensure proper alignment and to adequately protect all persons, property and to withstand all loading to which the structure may be subjected during erection.

Attachment of such temporary steel work to the permanent steel work shall only be done with the approval of the Engineer-in-Charge. Temporary steel work shall remain in position until the structure is stable and self-supporting and permanently bolted or welded to the satisfaction of the Engineer-in-Charge after removal of temporary steel work, the permanent structure shall be made good to the complete satisfaction of the Engineer-in-Charge.

No permanent bolting or welding shall be done until proper alignment has been obtained. Erection of the parts with any moderate amount of reaming, chipping or cutting shall be immediately reported to the Engineer-in-Charge. The steel work shall be rejected unless corrective action is approved by the Engineer- in-Charge.

Placement of joists shall not start until the supporting work is secured. Temporary bridging, connections and anchors shall be provided to assure lateral stability during erection. Bridging to steel joists shall be installed immediately after joint erection, before any construction loads are applied. Horizontal or vertical bridging shall be provided in accordance with the type of span of the joists. Ends of the bridging lines shall be anchored at top and bottom chords were terminating to walls or beams.

#### Steel Primer

A priming coat of approved steel primer such as Red Oxide/Zinc Chromate primer conforming to IS 2074shall be applied before any member of steel structure are placed in position or taken out of workshop Measurement

The work as fixed in position shall be measured in running meters correct to a millimeter and their weight calculated on the basis of standard table correct to the nearest kilogram. Steel section shall be acceptable within tolerance limits. Payment for the steel section shall be made as per actual weight within tolerance. Section having weight on higher side than permissible tolerance, may be acceptable but payment shall be made on the basis of standard weight only. Steel section having weight variations lower than permissible variation shall not be acceptable.

Unless otherwise specified weight of cleats, brackets, plates, packing, bolts nuts, washers, distance pieces, separators diaphragm gussets (taking overall square dimensions) fish plates etc. shall be added to the weight of respective items. No deduction shall be made for skew cuts. No deduction shall be made for rivet/ or boltsholes (excluding holes for anchor or holding down bolts) Deduction in case of rivet or bolts hole shall, however, made if its area exceeds 0.02 sqm.

The weight of steel sheet and strips shall be taken from relevant Indian standards based on 7.85 kg/ sqm. for every millimeter sheet thickness. For rolled section, steel rods and steel strips, weight given in relevant Indian Standards shall be used.

#### Rates

Rate includes the cost of labour and materials required for all the operations described above.

#### WATER PROOFING WORK

The work shall be got executed as per CPWD Specifications and as per the manufacturer's specificationthrough specialized agency as approved by the Engineer-in-Charge.

The contractor shall furnish the following particulars immediately after the issue of letter of acceptance bythe Department.

The name of the specialized firm.

The trade names of the product, which would be used. List of works where the treatment has been used.

Quantity of chlorides and sulphides used in the product.

Terrace Roof: -

terrace water proofing, as per CPWD Specifications 2019 with upto date correction slips, shall be done toentire satisfaction of Engineer-In-Charge.

The finished surface after water proofing treatment shall have adequate smooth slope as per the direction of the Engineer-in-charge.

Before commencement of treatment on any surface, it shall be ensured that the outlet drain pipes / spoutshave been fixed and the spout openings have been eased and rounded off properly for easy flow of water.

Measurements: Dimension of length, breadth and thickness shall be measured correct to nearest cm. The cubical contents of consolidated concrete shall be worked out to nearest 0.01 cum. Any work done in excessover the specified dimension or sections shown in design/drawings shall be ignored.

Rate: The rate quoted by the contractor shall be for the complete execution of the item based on the approved design & drawing, which also includes cost of all materials, T&P, soil investigation, and labour involved etc in all the operations described above and in the specifications, conditions mentioned in this agreement and the relevant BIS codes. The item does not include the cost of reinforcement.

#### GUARANTEE FOR WATER PROOFING TREATMENT

The contractor shall be fully responsible for and shall guarantee proper performance of the entire waterproofing system for a period of five years from the final completion of works. In addition, specific five years written guarantee (to be furnished in a non-judicial stamp paper of value not less than Rs.100/-) in approved proforma attached as Annexure-1 shall be submitted for the performance of the system, before final payment and shall not in any way limit any other rights the Employer may have under the contract. Guarantee for water proofing shall comprises of all the items described above in particular specification.

All water-proofing work shall be carried out through approved specialist agency as per method of working approved by the Engineer-in-charge. However, the Contractors shall be solely responsible for waterproofingtreatment until the expiry of the above guarantee period.

Five years guarantee in prescribed proforma attached shall be given by the contractor for the water proofing treatment. Towards that 10% (ten percent) of the cost of these items of water proofing under this sub head shall be retained as guarantee to watch the performance of the work executed. If any defect is noticed during the guarantee period, it should be rectified by the

contractor within seven days of issuing of notice by the Engineer-in-Charge and, if not attended to, the same shall be got done through other agency at the risk and cost of the contractor and recovery shall be effected from the amount retained towards guarantee. In any case, the contractor and the specialist agency, during the guarantee period, shall inspect and examine the treatment once in every year and make good any defect observed and confirm the same in writing. The security deposit can be released in full, if bank guarantee of equivalent amount, valid for the duration of guarantee period, is produced and deposited with the Department.

GUARANTEE FOR "Structural repair/ Rehabilitation/ Retrofitting works"

The contractor shall be fully responsible for and shall guarantee proper performance of the entire Structural repair/ Rehabilitation/ Retrofitting works for a period of five years from the final completion of works. In addition, specific five years written guarantee (to be furnished in a non-judicial stamp paper of value not less than Rs.100/-) in approved proforma attached as Annexure-2 shall be submitted for the performance of the system, before final payment and shall not in any way limit any other rights the Employer may have under the contract. Guarantee for water proofing shall comprises of all the items described above in particular specification.

All water-proofing work shall be carried out through approved specialist agency as per method of working approved by the Engineer-in-charge. However, the Contractors shall be solely responsible for waterproofingtreatment until the expiry of the above guarantee period.

Five years guarantee in prescribed proforma attached shall be given by the contractor for the Structural repair/ Rehabilitation/ Retrofitting works. Towards that 10% (ten percent) of the cost of these items of Structural repair/ Rehabilitation/ Retrofitting works under this sub head shall be retained as guarantee to watch the performance of the work executed. If any defect is noticed during the guarantee period, it should be rectified by the contractor within seven days of issuing of notice by the Engineer-in-Charge and, if not attended to, the same shall be got done through other agency at the risk and cost of the contractor and recovery shall be effected from the amount retained towards guarantee. In any case, the contractor and the specialist agency, during the guarantee period, shall inspect and examine the treatment once in every year and make good any defect observed and confirm the same in writing. The security deposit can be released infull, if bank guarantee of equivalent amount, valid for the duration of guarantee period, is produced and deposited with the Department.

#### ADDITIONAL CONDITIONS FOR STEEL REINFORCEMENT

The contractor shall procure TMT bars of Fe 500 D grade from primary steel producers such as SAIL, Tata Steel Ltd, RINL, Jindal Steel & Power Ltd and JSW Steel Ltd or any other producer as approved by CPWD who are using iron ore as the basic raw material/input and having crude steel capacity of 2.0 million tonnes per annum and above.

- 1. TMT bars shall meet the provisions of IS 1786: 2008 pertaining to Fe 500 D grade of steel.
- The contractor shall have to obtain vouchers and furnish test certificates to the Engineer-incharge in respect of all supplies of steel brought by him to the site of work.
- 3. Samples shall also be taken and got tested by the Engineer-in-charge as per the provisions in this regard in the relevant BIS codes. In case the test results indicate that the steel arranged by the contractor does not conform to the specifications as defined under para 1.1 and 1.2 above, the same shall stand rejected and it shall be removed from the site of work by the contractor at his cost within a week time of written orders from the Engineer-in-charge to do so.
- 4. The steel reinforcement shall be brought to the site in bulk supply of 50 tonnes or more or as directed by the Engineer-in-charge.
- 5. The steel reinforcement bars shall be stored by the contractor at site of work in such a way as to prevent distortion & corrosion, and nothing extra shall be paid on this account. Bars of differentsizes and lengths shall be stored separately to facilitate easy counting and checking.
- 6. For checking nominal mass, tensile strength, bend test, re-bend test etc. specimens of sufficient length shall be cut from each size of the bar at random at frequency not less than that specified below:

Size of bar	For consignmentbelow 100 tonnes	For consignment over100 tonnes  One sample for each 40 tonnes or part thereof	
Under 10 mm diabars	One sample for each 25tonnes or part thereof		
10 mm to 16 mm dia bars	One sample for each 35tonnes or part thereof	One sample for each 45 tonnes or part thereof	
Over 16 mm diabars	One sample for each 45tonnes or part thereof	One sample for each 50 tonnes or part thereof	

- 7. The contractor shall supply free of charge the steel required for testing including its transportation to testing laboratories. The cost of tests shall be borne by the contractor.
- 8. The actual issue and consumption of steel on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of steel shall be worked out as per procedure prescribed in clause 42 of the contract and shall be governed by the conditions laid therein. In case the consumption is less than theoretical consumption including permissible variations recovery at the rate so prescribed shall be made. In case of excess consumption, no adjustment need to be made.
- The steel brought to the site and the steel remaining unused shall not be removed from site without the written permission of the Engineer-in-charge
- 10. Steel bars brought by the contractor for use in the work small be got checked from the Engineer-in-Charge or his authorized representative of the work on receipt of the same at site before use.

- 11. In case the contractor brings surplus quantity of steel the same after completion of the work will be removed from the site by the contractor at his own cost after approval of the Engineer-in- Charge.
- 12. Reinforcement including authorized spacer bars and lap pages shall be measured in length of different diameters, as actually (not more than as specified in the drawing) used in the work, nearest to a centimeter. Wastage and unauthorized overlaps shall not be measured.
- 13. The standard sectional weights referred to as in Table 5.4 under para 5.3.4 in CPWD specifications for works 2019 Vol. 1 will be considered for conversion of length of various sizes of MS bars, Tor steel bars and TMT bars into standard weight.
- 14. Records of actual sectional weight shall also be kept dia-wise & lot-wise. The average sectional weight for each diameter shall be arrived at from samples from each lot of steel received at site. The decision of the Engineer-in-Charge shall be final for the procedure to be followed for determining the average sectional weight of each lot. Quantity of each diameter of steel received at site of work each day will constitute one single lot for the purpose. The weight of steel by conversion of length of various sizes of bars based on the actual weighted average sectional weight shall be termed as derived actual weight.
- 15. If the derived weight as in para 14 above is lesser than the standard weight as in para 13 above, the derived actual weight shall be taken for payment.
- 16. If the derived actual weight is found more then the standard weight then the standard weight as worked out in para 13 above shall be taken for payment. In such case nothing extra shall be paid for the difference between the derived actual weight and the standard weight.
- 17. Mixing of different type of steel/different grades of steel shall not be allowed in the same structural members as main reinforcement to satisfy clause 26.1 of IS:456.
- 18. Tolerances on Nominal Mass (individual sample) shall be as under:-

Sl. No.	Nominal size mm	Tolerances on the Nominal Mass, percentage
1	Upto and including 10	-8%
2	Over 10 upto & including 16	-6%
3	Over 16	-4%

### ADDITIONAL CONDITIONS FOR CEMENT

1. The contractor shall procure Portland Pozzolana Cement conforming to IS: 1489 (Part-I) as required in the work, from reputed manufacturers of cement, such as A.C.C., Ultratech, Vikram, Shri cement, Ambuja, Jaypee Cement, Century Cement, J.K. Cement or from any other reputed cement Manufacturer having a production capacity not less than one million tonnes per annum. The tenderers may also submit a list of names of cement manufacturers which they propose to use in the work. The tender accepting authority reserves right to accept or reject name(s) of cement manufacturer(s) which the tenderer proposes to use in the work. No change in the tendered rates will be accepted if the tender accepting authority does not accept the list of cement manufacturers, given by the tenderer, fully or partially.

Supply of cement shall be made in 50 kg. bags bearing manufacturer's name and ISI marking. Samples of cement arranged by the contractor shall be taken by the Engineer-in-Charge and got tested in accordance with provisions of the relevant BIS codes. In case the test results indicate that the cement arranged by the contractor does not confirm to the relevant BIS code the same shall stand rejected and shall be removed from the site by the contractor at his own cost within a week's time of written order from the Engineer-in-Charge to do so.

- 2. The cement shall be brought at site in bulk supply of approximately 10 tonnes or as decided by the Engineer-in-Charge.
  - The cement godowns of the capacity to store a minimum of **1000** bags of cement shall be constructed by the contractor at site of work for which no extra payment shall be made.
- 3. Double lock provision shall be made to the door of the cement godown. The keys of one lock shall remain with the Engineer-in-charge or his authorized representative and the key of the other lock shall remain with the contractor. The contractor shall be responsible for the watch and ward and safety of the cement godown. The contractor shall facilitate the inspection of the cement godown by the Engineer-in-Charge at any time.
- 4. The cement shall be got tested by the Engineer-in-Charge and shall be used on the work only after satisfactory test results have been received. The contractor shall supply free of charge the cement required for testing including its transportation cost to test laboratories. The cost of tests shall be borne by the contractor.

The actual issue and consumption of cement on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of cement shall be worked out as per procedure prescribed in clause 42 of the contract and shall be governed by conditions laid therein. In case the cement consumption is less than theoretical consumption including permissible variation, recovery at the rate show prescribed shall be made. In case of excess consumption no adjustment need to made.

- 5. The cement brought to site and the cement remaining unused after completion of the work shall not be removed from site without the written permission of the Engineer-in- Charge.
- 6. The damaged cement shall be removed from the site immediately by the contractor on receipt of a notice in writing from the Engineer-in-Charge. If he does not do show within three days of receipt of such notice, the Engineer-in-Charge shall get it removed at the cost of the contractor.
- 7. The contractor may use OPC in place of PPC only after written permission of Engineer-in- Charge. In such case, no extra payment shall be made in any form to the contractor by the Department.
- 8. The Batch Mix Plant (Minimum capacity of 0.50 cum per batch /25 cum per hour) at construction site can be installed and operated for use in this work subject to compliance of pollution control norms and other mandatory requirements in force at the place, subject to availability of space and consent of the client. Cost adjustment for quantity used from site plant to be made in the schedule item of RMC.

# GUARANTEE TO BE EXECUTED BY CONTRACTORS FOR REMOVAL OF DEFECTS AFTERCOMPLETION IN RESPECT OF WATER PROOFING WORKS.

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1.		
2.		
Signed for and on behalf of Directo	or CSU BY	in the presence of:
1.		

# Special condition to comply directive of Hon'ble National Green Tribunal & EIA Guidance Manual

- 1. The contractor shall not store/dump construction material or debris on metalled road.
- 2. The contractor shall get prior approval from Engineer-in-charge for the area where the construction material or debris can be stored beyond the metalled road. This area shall not cause any obstruction to the free flow of traffic/inconvenience to the pedestrians. It should be ensured by the contractor that no accidents occue on account of such permissible storage.
- 3. The contractor shall take appropriate protection measures like raising wind breakers of appropriate height on all sides of the plot/area using CGI sheets or plastic and/or other similar material to ensure that no construction material dust fly outside the plot area.
- 4. The contractor shall ensure that all the trucks or vehicles of any kind which are used for construction purposes/or are carrying construction material like cement, sand and other allied material are fully covered. The contractor shall take every necessary precautions that the vehicles are properly cleaned and dust free to ensure that enroute their destination, the dust, sand or any other particles are not released in air/contaminate air.
- 5. The contractor shall provide mask to every worker working on the construction site and involved loading, unloading and carriage of construction material and construction debris to prevent inhalation of dust particles.
- 6. The contractor shall provide all medical help, investigation and treatment to the workers involved in the construction building and carry of construction material and debris relatable to dust emission.
- 7. That contractor shall ensure the C&D waste is transported to the C & D Waste site only and due record shall be maintained by the contractor.
- 8. The contractor shall compulsory use of wet jet in grinding and stone cutting.
- The contractor shall comply all the preventive and protective environmental steps asstated in the MoEF guidelines, 2020.
- The contractor shall carry out on-Road-inspection for black smoke generating machinery.
   The contractor use cleaner fuel.
- 11. The contractor shall ensure that all DG sets comply norms notified by MoEF.
- 12. The contractor shall use vehicles having pollution under control certificate. The emissions can be reduced by a large extent by reducing the speed of a vehicle to 20 kmph. Speed bumps shall be used to ensure speed reduction. In cases where speed reduction cannot effectively reduce fugitive dust, the contractor shall divert traffic to nearby paved areas.
- 13. The contractor shall ensure that the construction material is covered by tarpaulin. The contractor take all other precaution to ensure that no dust particles are permitted to pollute air quality as a result of such storage.

#### GENERAL CONDITIONS FOR ASSOCIATE/SPECIALIZED ELIGIBLE AGENCIES

Name of Work: "Renovation of Ground Floor Space (Lift Side) for Vice Chancellor's Secretariat.

The tenderer should either himself meet the eligibility criteria for execution of specialized component of work or otherwise he will have to associate with agencies, fulfilling the eligibility requirements prescribed in the tender document.

- 1. The tenderer shall also be eligible to carry out himself any or all of the above Electrical/specialized works without associating any specialized agency provided they fulfil the eligibility criteria for each of the above Electrical/specialized work(s). In case the main contractor himself is not eligible (as per eligibility criteria) for executing any of the components of E&M work, he can directly associate the OEM/ authorized service provider of the OEM orspecialized agency as per criteria mentioned for associate eligible agency. (Joint ventures are not accepted), within 15 days of issue of letter of intent and also after taking prior approval from the Engineer- in-charge.
- 2. The intending bidder shall upload an undertaking along with the bid that "I/We shall associate specialized agencies as per the above eligibility criteria within 15 days of issue of letter of intent otherwise department may take action against me/us as per clause-3 of the applicable GCC of the agreement & may forfeit performance guarantee absolutely and also shall fulfil all the formalities for association of the specialized agencies as per the conditions mentioned in the "General conditions for specialized eligible agencies".
- 3. The tenderer or associate agency shall submit the similar work experience documents in respect of experience of having satisfactory completed similar works as defined below during last seven years ending last day of the month previous to the one in which tenders are invited, issued by client department clearly indicating; 1. Name of Work, 2. Scope of Work, 3. Agreement No., 4. Estimated Cost, 5. Tendered Cost, 6. Final Value of Work Done, 7. Date of Start, 8. Stipulated date of Completion, 9. Actual date of completion, 10. Nature of the Work. (In case some of above said details are not mentioned in the Completion certificate, the firm shall attach sample proof in support of above details), self-attested copy of valid Electrical contractor license, GST registration of the proposed associated specialized agencies for verification (if required) and for approval of the department as per eligibility requirement mentioned in above as per FORM within 15(fifteen) days from date of issue of Letter of Intent (LOI). Main contractor shall also be required to furnish either copy of applicable licenses/registrations or proof of applying for obtaining labour licenses, registration with EPFO, ESIC and BOCW Welfare Board of proposed associated specialized agencies along with above documents.
- Consent letter of such selected associated specialized agencies for association shall also be enclosed in the prescribed format as per FORM within 15(fifteen) days along with documents.
- 5. After approval of associated specialized agencies by Engineer-in-Charge, the main contractor will submit MoU signed with the Associated Specialized Agency in shape of **affidavit on stamp paper** duly attested by notary in original **within 5 (Five) Days** after issue of approval letter (for Associate Specialized Agency). The MoU shall be signed by both the parties i.e. Main Contractor as 1st party and Associated Specialized Agency as 2nd party, independently for all speciali k ozed work(s).
- 6. All technical discussions during currency of contract shall be attended by the Associated Specialized Agencies and the Main Contractor. Commercial/Technical submissions for the specialized work(s) shall be signed and submitted by the Associate Specialized Agencies along with the Main Contractor.

- 7. The Associated Specialized Agencies and the Main Contractor shall attend the site during inspection of the work by the Engineer-in-Charge or higher authority.
- 8. The Main Contractor shall be entirely responsible and answerable for all the works done by his Associated Specialized Agency regarding their quality, adherence to the laid down specification, terms and conditions, warranty/guarantee etc. as per the agreement and he shall be liable to bear any compensation that may be levied by the department under any of the clauses of the agreement.
- 9. Experience gained by executing work on back-to-back contract basis is acceptable. Back-to-back contract means work awarded by owner to first agency and then by the first agency to the second agency. The first agency shall not be eligible for work experience in such a case. To get the weightage of experience, following conditions must be fulfilled.
  - a. Work should be actually executed by the second agency with due concurrence of the owner as tri-partite agreement. It should be backed by valid agreement and experience certificate.
  - b. Payments received by second agency should be reflected in bank accounts and income tax statements.
  - c. Owner of the project and first agency should jointly certify the experience certificate.
  - d. The actual amount of payment received by the second agency shall be considered for experience.
- 10. In the event of the associated E&M agency not performing satisfactorily or failure of associate agency to complete the E&M work, the main contractor on written directions of the department, shall remove the Associate agency deployed on the work and shall submit proposal for approval of New associate agency without any loss of time or variation in cost to the department after completion of all formalities mentioned as above Such New associate agency shall also give an undertaking along with the main tenderer that both of them shall guarantee for the equipment already supplied for which payment has been released by the department in part. If any equipment supplied for the work, during the currency of the earlier associate agency and paid partly by the department, becomes redundant /not in a position to be installed and Commissioned and put to beneficial use due to change in agency for execution of E&M work, the main contractor shall be responsible for replacement of the equipment(s) at no cost to the department. If Main Contractor wants to change the Associated Specialized Agency during the currency of the contract he shall submit name of new Associated Specialized Agency as per eligibility criteria mentioned in the NIT to execute the left over specialized work(s) after completion of all formalities mentioned as above.
- 11. No change of associate agency will be allowed without prior approval of the Engineerin-charge of the work.
- 12. The main contractor shall be responsible and liable for proper and complete execution of the Electrical work and ensure coordination and completion of both civil and electrical work.
- 13. Running payment for the work shall be made to the Main Contractor. In case, Main Contractor fails to make the payment to the Associated Specialized Agency(s) by him within 15 days of receipt of each running account payment then on the written complaint of any Associated Specialized Agency(s) for such work, Engineer-in-Charge shall serve the show cause notice to Main Contractor and after considering the reply of the same he may make the payment directly to the concerned Associated Specialized Agency(s) for the work as per the terms & conditions of the agreement/MoU drawn between Main

Contractor and Associated Specialized Agency(s) fixed by him, if reply of main contractor either not received or found unsatisfactory. Such payment made to the Associated Specialized Agency(s) shall be recovered by Engineer-in- Charge from the next RA/final bill due to Main Contractor as the case may be.

- 14. The associate contractor shall attend the inspection of the work by the Engineer-incharge of E&M works as and when required.
- 15. The associated E&M agency/specialized firm for air conditioning shall have executed at least one E&M work of 80 percent of estimated cost or two works of 60 percent of estimated cost or three works of 40 percent of estimated cost of E&M component.

The main contractor has to furnish the detail of the associate agency as per the performa mentioned above.

If the main contractor fails to associate agency for execution of minor components of work within 30 days of award of work OR atleast two months before start of minor component of work whichever is earlier or furnishes incomplete details or furnishes details of ineligible agencies even after the tenderer is given due opportunity, the entire scope of such component of work shall be withdrawn from the tender and the same shall be got executed by the Engineer-in-Charge at the risk and cost of the main contractor after due approval by NIT accepting authority.

Normally, there shall be no change in associated contractor for minor component work during the execution of the work. If at all, a change is necessitated, the same should be acceptable to the department and such acceptable contractor shall fulfill the conditions laid down for the selection of the associated contractor in the tender document.

In the event of the concerned associate not performing satisfactory or not completing the work, the department can also direct the main contractor to remove the associate agency deployed on the work and ask him to deploy another associate contractor who fulfills the eligibility conditions. The New associate contractor will be bound to execute the left over work without any loss of time or variation in cost to the department. Such associate agency shall be permitted after the approval of the Engineer in Charge and shall enter into a memorandum of understanding as per the enclosed proforma along with the main contractor.

The main agency will be responsible for all acts of omission and commission of the associate contractors including the changed one (s) as referred above.

The main contractor shall be responsible for co-coordinating the activities of all the works and will ensure progress of all works as per the laid down programme. The main contractor shall also arrange for proper storage of the accessories at site and will be responsible for their watch ward.

The Associated Electrical Contractor or his representative is bound to sign the site order book as and when required by the Engineer-in-charge and will comply with the remarks therein.

The work completion certificate for E&M works shall be issued in favour of the associated E&M contractor engaged for the particular subhead. The contractor shall have valid electrical license from competent authority in his name or he may associate appropriate contractor having valid electrical license as per NIT conditions. After obtaining concurrence of competent authority department, the main agency shall finalize one associate for execution of each electrical component of the work. The contractor shall use any of the makes as per approved makes for use in the work after obtaining the approval of the Engineer-in-charge.

# CONSENT LETTER FROM ELIGIBLE ASSOCIATE AGENCY OF MINOR COMPONENT OF WORK

I / We hereby give my consent to associate with M/s,	for executing
The specialized work of	100 miles

- 1) I / We will execute the work as per specifications and conditions of the agreement and as per directions of the Engineer –in-Charge for the corresponding minor work till the completion of the work.
- I / We will be responsible for Necessary action to handover the installations and for rectification of defects and repair during the maintenance / warranty period.
- 3) Also I / We will employ full time technically qualified Engineer / supervisor for the minor component of the work as required for the work. I / We will attend inspection of officers of the department as and when required.

Date:

Signature with date of Major component Contractor Address

Signature with date of Associate / Minor component Contractor Address

Witness with address (From major component contractor side)

Witness with address (From minor component contractor side)

#### PERFORMA FOR ASSOCIATING AGENCY

I/we hereby propose the following agency for execution of work component mentioned herein. Consent Letter from the proposed associated agency is enclosed.

Name of Work: RMO HVAC SYSTEM at Rashtrapati Bhavan, New Delhi. (SH: - Replacement of (14 HP x 3) VRV/VRF SYSTEM at President Secretariat Rashtrapati Bhawan, New Delhi.

1.	Component of E&M Work	* ********		•••
ii.	Name of Associated Agency			• • •
iii.	Details of Enlistment	:		
iv.	Category and Class of Enlistment			
v.	Monetary limit of work in Enlistment	*		
vi.	Validity of Enlistment			•••
vii.	Copy of Enlistment Order attached		(Yes /No)	
viii.	Copy of electrical contractor license atta	ached:	(Yes /No)	
ix.	Copy of completion certificates of similar	ar		
	Work experience attached	:	(Yes /No)	
х.	Copy GST Registration attached	ė.	(Yes/No)	
xi.	Copy PAN Card Attached	:	(Yes/No)	
xii.	Consent Letter of agency attached	•	(Yes/No)	

Encl: Self Attested photocopies of as stated above

Signature with date of Major component Contractor Address

Witness with address (From major component contractor side) Signature with date of Associate/ Minor component Contractor

Address

Witness with address (From minor component contractor side)

AFFIDAVIT OF MEMORANDUM OF UNDERSTANDING (MOU)

(To be submitted by main contractor)

- 2) M/s. (Name of the firm with full address) (Henceforth called Associated Contractor)

For the execution of E & M component Works -

We state that M.O.U between us will be treated as an agreement and has legality as per Indian Contract Act (amended up to date) and the department (CPWD) can enforce all the terms and conditions of the agreement for execution of the above work. Both of us shall be responsible for the execution of work as per the agreement to the extent this MOU allows. Both the parties shall be paid consequent to the execution as per agreement to the extent this MOU permits. In case of any dispute, either of us will go for mediation by the Engineer In charge. Any of us may appeal against the mediation to the Superintending Engineer, President Estate Circle, CPWD, New Delhi-110004. His decision shall be final and binding on both of us. We have agreed as under:

- The Associated Contractor will execute all E & M works in the wholesome manner as per terms and conditions of the agreement.
- The Associated Contractor shall be liable for disciplinary action if he fails to discharge the action(s) and other legal action as per agreement.
- 3) All the machiNery and equipments, tools and tackles required for execution of the works, as per agreement, shall be the responsibility of the Associated Contractor.
- 4) The site staff required for the E & M work shall be arranged by the Associated Contractor as per terms and conditions of the agreement.
- 5) Site order book maintaiNed for the said work shall be signed by the main contractor as well as by the Engineer of the Associated Contractor and by Associated Contractor himself.
- 6) All the correspondence regarding execution of E & M work shall be doNe by the department with the Associated Contractor with a copy to the main contractor. In case of non-compliance of the provisions of agreement, the main contractor, as well as the associated contractor shall be responsible. The action under clauses 2 and 3 shall be initiated and taken against the main contractor.

Signature of main contractor  Date: Place:	Signature of associated contractor  Date: Place:
1. Witness with address	2. Witness with address
(From major component contractor side)	(From minor component contractor side)

### Modification in General Conditions of Contract (CPWD - 7)

The intending bidders must read the terms and conditions of CPWD-7 carefully. The agreement shall be drawn with the successful bidders on prescribed form no. CPWD-7 (as amended up to last date of submission of bid) along with the following modifications.

- "President of India" may be read as "Vice Chancellor of Central Sanskrit University, 56-57, Institutional Area, Janakpuri, New Delhi - 110058.
- 2. "Vice Chancellor" means "Vice Chancellor of Central Sanskrit University, 56-57, Institutional Area, Janakpuri, New Delhi 110058.
- 3. "Assistant Engineer" as "Section Officer/Estate Officer of Central Sanskrit University, Campus"
- 4. "Executive Engineer" as "Director, CSU Campus"

- 5. "Superintendent Engineer" as "Registrar CSU, 56-57, Institutional Area, Janakpuri, New Delhi 110058.
- 6. "Department" means "Central Sanskrit University, 56-57, Institutional Area, Janakpuri, New Delhi 110058."

## Minimum Quality Assurance Plan (for the work costing more than 10 lac)

- Tests which are mandatory as per CPWD specification 2019 Vol I & II are to be carried out by the contractor. While deciding these criteria CPWD Specifications & Provisions of BIS Code and Standard Practices may be referred if not mentioned in the annexure mentioned above.
- 2. Machinery and other Tool & Plants required to be deployed at site by the contractor as per Annexure requirement of Entire Machinery and T&P may not be required at the start of work, therefore, a proper time schedule by which each Machinery & T&P is to be brought at site shouldbe submitted by the contractor to the site staff before start of the work.
- Field laboratory is required if necessary for this work then testing equipments to be arranged by the contractor If field lab is to be setup by the Department then contractor may be allowed for conducting the test there.
- 4. Maintenance of Register of Tests -
  - (i) All the registers of tests carried out at Construction Site or in outside laboratories shall be maintained by the contractor which shall be issued to the contractor by Engineer-in-charge at the time of issue of award letter.
  - (ii) All Samples of materials including Cement Concrete Cubes shall be taken by Contractor jointly with Estate officer in charge of work and out of this at least 50% samples shall be taken in presence of Section officer in charge. If there is no JE, all Samples of materials including Cement Concrete Cubes shall betaken by contractor in presence of section officer in charge of work. All the necessary assistance shall be provided by the contractor. Cost of sample materials is to be borne by the contractor, and he shall be responsible for safe custody of samples to be tested at site.
  - (iii) All the test in field lab setup at Construction Site shall be carried out by the Engineering Staff deployed by the contractor in presence of Estate officer -in-charge and at least 50% of tests in presence section officer in-charge.
  - (iv) All the entries in the registers will be made by the designated Engineering Staff of the contractor and same should be presented before Estate officer/section officer/Director for their review.
  - (v) Contractor shall be responsible for safe custody of all the test registers.
- 5. It is mandatory to the contractor to submit copy of all test registers, Material at Site Register and hindrance register along with each alternate Running Account Bill and Final Bill. These registers shall further be checked by Estate officers/ section officers and receipts of registers should also be acknowledged by Section Officer by signing the copies and register to confirm receipt in campus office.

If all the test registers and hindrance register is not submitted by contractor along with each alternate R/A Bill & Final Bill, no payment shall be released to the contractor.

- 6. Maintenance of Material at Site (MAS) Register -
  - (i) All the MAS Registers including Cement and Steel Registers shall be maintained by Contractor which shall be issued to the contractor by Engineer-in-charge along with the award letter.
  - (ii) The contractor shall get 100% test checked by Estate officer or by Section officer if

- there is no Estate officer after each entry of receipt of material at site in MAS register.
- (iii) The contractor shall get MAS Register test checked by Estate officer at least twice a week and at least once a week by Section officer. If Estate officer is not available then MAS register must be checked by SO at least twice a week.
- (iv) Cement register shall be got reviewed by section officer at least once in a month.
- 7. The concrete mix design/laboratory tests with and without admixture shall be got done bycontractor at his own cost and will be carried out by the contractor through one of the following laboratory/Test houses:
  - All Govt. Institutions, Indian Institutes of technology, National Institutes of technology, Central and State research Centre, Centrally and state funded laboratories stand approved. No approval is required for testing in these laboratories/institutions.
- 8. Approved Lab/Govt. Engineering Institutions as directed by the Engineer-in-charge. The various ingredients for mix design / laboratory tests shall be sent to the test houses through the Engineer- in-Charge and the samples of such aggregate & cement shall be preserved at site by the department.

## LIST OF APPROVED MAKE OF MATERIALS (FOR CIVIL WORKS)

Specification/brands names of materials (Refer materials, whichever are applicable for the scope of work) and finishes approved by the Engineer-in-Charge are listed below. However approved equivalent materials and finishes of any other specialized firms may be used, in case it is established that the brands specified be low are not available in the market and subject to approval of the alternate brand by the Engineer-in-Charge, (See

also	conditions	of	contract)	
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S1.	Materials	Approved make
No.		
1.	Poly-Sulphide Sealant	Pidilite, Tuffseal, Choksey / DURABUILD
2.	Damp Proof Material	Impermo, Dura Build, Acco-Proof, CHOKSEY
3.	Structural Steel, Sections	Tata, Sail, RINL, Jindal, Prakash, Rana Capital, Apollo, Bhusan, JSW, JSPL
4.	Admixture	Fosroc, MC BAUCHEMIE, CICDura Build, CHOKSEY, BASF O/
5.	White Cement	J.K. White, Birla White
6.	Water Proofing Compound	Tap Crete, CICO, Dura Build, Accoproof, Impermo(BySnowcem India Ltd.), Pidilite, Fosroc, Asian
7.	Bitumen	Indian Oil Carporation Ltd, Hindustan Petroleum, Bharat Petroleum
8.	Injection Grouting	Pidilite (Dr Fixit), Sika, Fosroc, DURABUILD.
9.	Non-metallic Surface Hardener	MC Deritop F.H.
10.	Locks/Latch	Godrej, Dorma, Dorset, Hafele, Geze, Ozone
11.	Laminates, Veneer	Merino, Greenlam, Century, Greenply,
12.	Wire Mesh	Sterling Enterprises, Trimurty Welded Mesh
13.	Prelaminated Particle Board	Action TESA, Bhutan Boards, Greenlam, Kitlam, Century
14.	Adhesive	Pidilite, Dunlop, Asian ,sika
15.	Epoxy Mortar	Fosroc, Dura Build, Sika,
16.	Dash Fasteners	Hilti, Bosch, Wurth
	Flush Door Shutters (Decorative Non- Decorative)	Century, Green Ply, Duro, Merino, Greenlam, Europly, ARCHID
18.	Board & Plywood	Century, Green Ply, Duro, Merino, Greenlam, Europly, ARCHID

19.	Hydraulic Door Closer/Floor	Godrej, Dorset, Dorma, Hafele
20.	Spring Wooden Door Fittings of Brushed Steel	B & R Dorma, Godrej, Hafele, Geze
21.	S.S. Staircase Railing	Jindal Stainless Steel Ltd., Essal, Dorma, D line, KICH INDUSTRIES
22.	Fire Check Door	Sukriti, Pacific, Navair, Shakti House
	Fire Check Accessories Calcium Silicon Board	Promat, Hiliex, Ramco
24.	Smoke Seal Strip	Imported Promat/Astro Flame
-	Door Closer Lock	Ingerboll Rand/Dorma, ASES, Hardwyn, Everest, Hafele, Assa Abloy
26.	Panic Exit Device	Ingerrsoll, Godrej, Everest, Hafele,
27.	Anodized Aluninium Hardware (Heavy Duty)	Jindal, hindalco, geze, Dorma
28.	Tempered Glass	Modi Float & Saint Gobain, ASAHI, Glaverbel
-	Polyester Powder Coating Shades	Nerolac, Berger, J & N
30.	Aluminum Sections	Jindal, Hindalco, Indalco, Global, Bhoruka
	Friction Stay Hinges	Godrej, Hettich, Hafele
	Nuts, Bolts and Screws, Stee	
	EPDM Gasket	Hanu/Anand
	Structural Silicone	Dow Corning/Wacker
	Weather Silicone	Dow Corning/Wacker, Dura Build, Choksey
	Adhesive Tape	Norton, 3M, A very Denisson
	Terrazzo Tiles (Precast)/Plain/ Chequerred	NITCO, MODERN, Unistone, K.K. Manhole, Krishana
38.	Glazed Ceramic Tiles	JOHNSON, SOMANY, KAJARIA, RAK
39.	Cement Concrete Tiles/Hardonite Tiles	NITCO, NTC, HINDUSTAN, Unistone, Dalal, Surendera
40.	Vitrified Tiles (all types)	KAJARIA, SOMANY, JOHNSON, RAK
41.	Tile Adhesive.	PIDLITE FERROUS, Asian Paint, Fosroc, LATICRETE
42.	Clay Tiles on Roof	KENZAI, SUNHEART, JOHNSION
43.	C.C. Pavers	NITCO-(ROCKARD), TUFTEK, K.K Pvt. Ltd., HindustanTile, Dalal, MODERN
44	Acrylic Emulsion Paint	ASIAN Paints, NEROLAC, BERGER, DULUX
	Luxury Emulsion Paint	ASIAN Paints, NEROLAC, BERGER, DULLUX
40.	Luxury Linuision Laun	ASIAN FAIRS, NEROLAC, BERGER, DULUA

46.	Grass Paver	UNISTONE, ULTRA TILES, NITCO, DU'RACRETE, DALAL
47.	Water-Proof Cement Paint	Kilicknixon, Durocem, Snowcem, Burger, ICI, Asian Paints
48.	Synthetic Enamel Paint	Berger, Nerolac, Asian Paints, DULUX
49.	Plastic Emulsion Paint	Berger, Nerolac, Asian Paints, DULUX
-	Vitreous China Sanitary ware	Parryware, Hindware, CERA, Kohlar, Toto, Roca
51.	Fireclay Sinks & Drain Boards	Hindware, Cera, Parryware
52.	Stainless Steel Sinks	Nilkanth, AMC, Cobra, Jayna, ,Nirali,CERA
53.	C.P. Brass Fittings	Jaquar, Kohler, Roca, Grohe,
	Soil, Waste & Vents Pipes &Fittings A) Centrifugal Cast Iron B)Hubless Centrifugal Cast(spun)Iron pipes & fittings	Neco, RIF, SKF, HIF, RPMF
55.	LA (CI) Pipes	RIF, Neco, Electro Steel, Kesoram
56.	G.I. Pipes	Tata, Jindal -Prakash Surya
57.	G.I. Fittings (Malleable Cast Iron)	Unik, ICS
58.	Gunmetal Valves	Leader, Sant, Zoloto, ATAM/FEBI, DEEPAK
59.	Stone Ware Pipe & Gully Traps	Perfect, Parry, Anand
60.	R.C.C. Pipes-(NP-2)	Lakshmi, Sood&Sood, Jain & Co.
61.	MS Pipe	Electro Steel, TATA, Well Span
62.	C.I. Double Flanged Sluice Valves	Kirloskar, IVS, Burn ATAM/FEBI, DEEPAK,
63.	C.I. Double Flanged Non- Return Valves	Kirloskar, ATAM/FEBI, DEEPAK
64.	C.I. Manholes Covers	B.C. RIF, NECO, SKF, RPMF
65.	UPVC Pipe	Supreme, Finolex, Astral
66.	Copper Tubes/Pipes	Rajco, Max Flow ABC
	Copper Fittings	Yorkshine, IBP, Bconex
	Ball Valves	Zoloto, IBP, Arco, ATAM/FEBI, DEEPAK
69.	Butterfly Valves	Audco, ATAM/FEBI, DEEPAK
	Unglazed Vitrified Tiles	Johnson – (Endura), SUNHEART, Somany – (Dura Stone), Regency– (Tiles), Kajaria, Oasis, Varmora
71.	Spider Fittings	Dorma, Sevax, Hettich, Hafele, ASSA ABLOY(ENOX)
	Mineral Fibre False ,	Armstrong, Hi Steel, Hunter Douglas, Dexune, Diamond
A	APP Sheet for water proofing	Roflex, STP, Dermabit, Watertite (Alex), Bitumat Co.

73.	PE-AL-PE PIPES & FITTINGS	Jindal, Supreme, Kitec
74.	PVC/SINTHETIC WATER TANK	Sintex, Uniplast, Polycon
- 75.	Self Closing Pillar Taps	Jaquar, KAISER VITALS
76.	Hot Water Insulation	Glass Wool/ Mineral Wool
77.	Elastomeric Sleeve	Up Twiga / Rocklloyd
	Beveled Edge Mirror	Atul/Saint Gobain/Modi guard,
	Rolling Shutters	Rama Rolling Shutters / Joyti Rolling Shutters.
80.	Wall Putty	Birla White, J.K White, Berger, Asian Paint.
81.	Drapery Rod, Venetian Blinds, Roller blinds	Vista, Hunter-Douglas, Rossele, Wall Track, Deck
82.	Ready Mixed Concrete	ACC, Unitech, Ultra Tech (Birla), Shri Ram Ready Mix, RMC India.
83.	PTMT Fittings	Prayag, Shakti
	HDPE PN-6, PE-80	Dure-line, Supreme, Vikas - "Tijaria"
	Electric Resistance Welded (ERW) Pipes Slotted/Blind for Tube well	Jindal, SAIL, TATA,
86.	Polycarbonate sheet	Lexan,demplon,
87.	Texture Decorative Paint	ASIAN, DULUX, BERGER, NEROLAC
88.	Metal False Ceiling	Armstrong, Hi Steel, Durlum, SaintGobain, Diamond
89.	UPVC Window/Door	Rehau, Fenesta,
	Lacquered Glass	Modi, Saint Gobain, Asahi, Glaverbel
	Bamboo and wooden grill/ baffle, backer/ box metalspecial false ceiling	Armstrong, Hunter Douglas, SAS, Dampa, Lindner, Anutone, Ecophone, USGBoral, AMF
92.	Hard wood Flooring/Engineering wood flooring	Juncker,Pergo, Mikasa, Vista
93.	Wooden Laminate Flooring	Pergo, Vista
	Nylon Carpet Tiles/ Rolls	Forbo Flotex, Euronics, SHAW
	Calcium Silicate and Gypsum Board/ Tiles	Ramco-Hilux, Gyproc, Boral, Saint Gobain, USG, Dexune, WESTERN
96.	CarpetFlooring	Mohawk, Milliken, Interface, Shaw
	Furniture	Godrej, Rockworth, Delite, Durian
-	Fabric	Response, SAROM, RR DÉCOR, D DÉCOR
	AccousticBoard / Panel	

100. HARDWARE&FITTING	DORMA, HAFELE, GEZE, ASSA ABLOY
101.GLASS	SAINTGOBAIN, AIS, ART N GLASS
102.PLY	Duro, Greenply, Centuryply
103. GYP Board	Saint Gobain, USG Boral
104. Glass partition	Dorma, JEB, HAFLE, Alloy, ASSA ABLOY
105.Glass film	3M Film, Innovation Décor, Millenium, Business Ltd.
106. Acoustic Board/Panel	Anutone, Ecophone, Gyptech
107. Vinyl Flooring	Gerflor, Tarkett, Responsive, LG Hausys, Show
	Wonder Floor.
108. Entrance Matting	3m, Forbo, Parker Electrocnics, Abhishek Solution
109. Fire Rated Clear Glass	Saint Gobain, Modi, AIS
110. Fire Seal	Abacus, Sealz, Alstroflame. Athmer
111. Waste Bins	Mofna Industries, K.C. Green Revolutions, Hafele
112.Signages	PROLITE, GLOLITE, VISTA Hanu Marketing Pvt.

		Ltd. sign xpress india			
113	. Laquered Glass	Saint Gobain, AIS, Modi			
114	.Italian Marble	Stonex, Marble City, J.C.R. Marble, Malani marble			
115	.Engineered Stone	Kalinga, Shubham Stone, Rahul Marble			
116	. Melamine foam	Ecotone, NSA Builtech			
117	. Mosaic & Decorative Tiles	Cameo Impex, Sindron			
118	Stone / Tile Adhesive	MYK Laticrete, Pidilite, Mapei			
119	Shower Cubicle	Jacquar, Assaabloy			
120	Sliding Foldable Partition	Dorma, Hafele, Assabloy			
121	.R.O. System	Venza, Sarah Aquasoft, Sarah Puritech, Kent			
122	Pre-laminated MDF Board	Marino, Century, Greenlam			
123	.PU-Polish & Sealer	NEROLAC, ASIAN PAINT, PIDILITE			
124	Steel Reinforcement (TMT Bars)	TATA, SAIL, RINL, JSPL, JSW			
125	.Crystalline water proofing admixtures	Penetron, Fosroc, BSF, Asian			
126	.HDPE water proofing	Pidilite,GRACE, FOSROC,			
	membrane	BASF, SOPREMA			
127	.GRC tiles and Jalli	Dalal, Unistone			
128	. Automatic Sensor Door	Hafele, DormaKaba ,Assa Abloy			
129	.Glass Hardware	Hafele , Dormakaba			
130	.Shower System Hardware	Hafele ,Dormakaba ,			
131	Block Adhessive	Ultratech, Pidilite , laticrete			
132	. Epoxy Grout	MYK Laticrete, Fosroc, Pidilite			
133	.Cement	ACC, AMBUJA,ULTRATECH, SHREE CEMENT, JAYPEE CEMENT,			
134	WPC/ frame and Doors	ALSTONE, RAJSHRI PLASTIWOOD, ECOSTE			
135	.GRG False Ceiling Tiles	Diamond International, Saint Gobain, SG Boral ARMSTRONG, DECOSONIC, DAIKEN			
136	. FRP Door Shutters	Fibreways, SABRI			
137	Looking Mirror	Saint Gobain, Asahi			
138	.Sanitaryware	Hindware, Parryware, Cera, Jaquar, Kohler			
139	Profile Sheet	JSW,Tata,			
140	. APP	Asian, Fosroc, Penetron, BSF			
141	SBR Polymer	FOSROC, CICO, Pidilite - Dr. Fixit			
142	HDMR/HDHMR Board	CENTURY, GREENLAM, MERINO, ACTION TESSA			
143	Bamboo Wood flooring	EPITOME, AMITEX, ECO GREEN FLOORING,			
		VIVANTA, FLOOR INDIA			

	Approved Brands fo	or electrical items
Sl. No.	Description of Item	Acceptable Makes
(1)	Split AC/ Window AC / Variable Refrigerant Flow/Variable Refrigerant Volume (Indoor & Outdoor unit)	Daikin / Mitsubishi / O-General
(2)	Copper Pipe	Malesia / Mandwa / Malwa / Visiaro
(3)	Cable / Wire	RR Kable / Havells / Polycab / Finolex
(4)	PVC channel / Casing, capping channel / Conduit	Legrand / AKG / MK / BEC / Polycab / Astral / Supreme / Precision
(5)	DWC HDPE pipe	Dura Plast/Tirupati/Dura Line/Rex
(6)	MCCB, DB, Industrial Socket, MCB, Isolator, Industrial plug Socket, RCCB, RCBO's (ISI Marked/IEC Compliant)	Schneider Electric / Legrand / Hager/ L&T/ ABB / Siemens
(7)	FRLS PVC Insulated Copper Conductor Wire, XLPE Al. armoured cable (ISI marked)	Finolex / RR kabel/ Havells/Polycab/Rallison/ Greatwhite/KEI
(8)	MCB's, MCB DB's, MCCB's, RCCB/ELCB	L&T/Havells / Legrand/Schneider Electric/ Hager/ABB/HPL

(9)		25A modular SPMCB "C" curve	L&T/Havells / Legrand/Schneider Electric/
		along with one no 2 module 25	Hager/ABB/HPL
		A socket outlet on modular	
		plate and cover.	
(10)		Modular/Piano Type switch,	Anchor Panasonic/ Havells Crabtree
(2)		socket, cover plate, Regulator (2	/Northwest/ ABB/
	.1	module size), blanking plate,	/Legrand/Philips/L&T/Greatwhite/HPL
		ceiling rose, Bell push, and their	
		GI Box, Call bell	
(11)		Steel Conduit/ PVC Conduit	BEC / NIC / AKG/Rallison
		(ISI marked)	
(12)		All LED fittings/ LED fixtures	Philips/ Havells/ Orient / Wipro/Crmpton
(13)	101	Wall bracket fitting	Twinkle lite / Luster / Twinkle Lux
			max/Havells/
			Orient/Wipro/Crompton/Philiips
(14)		Ceiling Fan/ Exhaust Fan	Havells/Orient/Usha/ Anchor Panasonic
(15)		GI Pipe / MS Pipe	TATA / Jindal Hisar/ SAIL
(16)		Phenolic laminated sheet	Hylam/ Formica/Super hylam
(17)		All other items not covered	As per samples approved by Engineer In-
	(10) (11) (12) (13)	(10) (11) (12) (13) (14) (15)	along with one no 2 module 25 A socket outlet on modular plate and cover.  (10) Modular/Piano Type switch, socket, cover plate, Regulator (2 module size), blanking plate, ceiling rose, Bell push, and their M.S. Boxes/ brass batten angle holder/ electronic fan regulator, GI Box, Call bell  (11) Steel Conduit/ PVC Conduit (ISI marked)  (12) All LED fittings/ LED fixtures  (13) Wall bracket fitting  (14) Ceiling Fan/ Exhaust Fan  (15) GI Pipe / MS Pipe

Note:-

- A) Material specified in the list of Preferred makes shall be got approved from Engineer-in-charge before use on work. Decision of Engineer-in-charge shall be final in this regard.
- B) Material not specified in the list of preferred makes shall be got approved from Engineer-in-charge before use on work. Decision of Engineer-in-charge shall be final in this respect.

### Schedule of Quantity

Name of work: Renovation of VC office at Central Sanskrit University, 56-57 Institutional area, Janakpuri New Delhi (Civil Works)

S.N	Description of item	Qty.	Unit	Rate	Amount	DSR Ref
1	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, for all lift,					
	including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.					2.80
1.1	All kinds of soil.	15.00	cum	260.30	3905.00	2.8.1
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:  1:5:10 (1 cement : 5 coarse sand (zone-III) derived from natural					4.20
2.1	sources : 10 graded stone aggregate 40 mm nominal size derived from natural sources)	2.00	cum	8519.20	17038.00	4.2.8
3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:					
3.1	1:2:4 (1 cement : 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 20 mm nominal size derived from natural	4.00	cum	7878.5	31514.00	4.1.3

	sources)					
					: 3:	
4	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:					
4.1	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	1.00	cum	9045.75	9046.00	5.1.2
5	Centering and shuttering including strutting, propping etc. and removal of form for:					5.9
5.1	Shelves (Cast in situ)	3.00	sqm	927.25	2782.00	5.9.4
6	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.					5.22A
6.1	Thermo-Mechanically Treated bars of grade Fe-500D or more.	400.00	kg	107.85	43140.00	5.22A.6
7	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:					6.1
7.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	6.00	cum	7132.25	42794.00	6.1.2
8	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.					6.13
8.1	Cement mortar 1:4 (1 cement :4 coarse sand)	62.00	sqm	1123.80	69676.00	6.13.2

9	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					
9.1	all levels.  Granite stone slab of colour black, Cherry/Ruby red					8.2.2
9.1.2	Area of slab over 0.50 sqm	10.00	sqm	5136.30	51363.00	8.2.2.2
10	Providing and fixing plywood 4 mm thick, one side decorative veneer conforming to IS: 1328 (type-1), for plain lining / cladding with necessary screws, including priming coat on unexposed surface with:					8.28
10.1	Decorative veneer facings of approved manufacture	150.00	sqm	1946.25	291938.00	8.28.1
11	Providing and fixing Ist quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.		sqm	1267.95	63398.00	8.31

12	Extra for fixing marble /granite stone, over and above corresponding basic item, in facia and drops of width upto 150 mm with epoxy resin based adhesive, including cleaning etc. complete.	5.00	mtr.	568.55	2843.00	8.40
13	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	2.00				
14	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).		each	978.70	1957.00	9.1
14.1	Second class teak wood	0.80	cum	142949.70	114360.00	9.1.1
15	Providing wood work in frames of false ceiling, partitions etc. sawn and fixed in position with necessary stainless steel screws etc.					9.3
15.1	Sal wood	0.50	cum	104754.35	52377.00	
16	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:					9.21
16.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	20.00	sqm	2392.65	47853.00	9.21.1

17 m de sh sh Pr m 18 w pl ur	ass teak wood battens 25 mm inimum depth on all edges of flush oor shutters (over all area of door nutter to be measured).  roviding and fixing wooden oulded beading to door and rindow frames with iron screws, lugs and priming coat on	20.00	sqm	462.35	9247.00	9.23
Promote the second seco	roviding and fixing wooden oulded beading to door and indow frames with iron screws,					1.20
101	nexposed surface etc. complete :					9.40.
18.1 2r	nd class teak wood					9.40.1
18.1.2	0 x 20 mm	42.00	metre	271.75	11414.00	9.40.1.2
19 fra nu en 30 3	roviding 40x5 mm flat iron hold fast 00 mm long including fixing to ame with 10 mm diameter bolts, uts and wooden plugs and inbedding in cement concrete block 00x100x150mm 1:3:6 mix (1 cement : coarse sand : 6 graded stone ggregate 20mm nominal size).	32.00	each	228.85	7323.00	9.53
20 br	roviding and fixing bright finished rass hanging type floor door stopper ith necessary screws, etc. complete.	8.00	each	121.65	973.00	9.82
ex ur (h en up fro do	roviding and fixing aluminium struded section body tubular type niversal hydraulic door closer aving brand logo with ISi, IS: 3564, abossed on the body, door weight pto 36 kg to 80 kg and door width om 701 mm to 1000 mm), with buble speed adjustment with ecessary accessories and screws etc.					
Pr pla 22 an	omplete.  roviding and fixing chromium ated brass 100 mm mortice latch and lock with 6 levers and a pair of ver handles of approved quality	8.00	each	983.15	7865.00	9.84
	ith necessary screws etc. complete.	8.00	each	998.35	7987.00	9.88
ch loc qu	roviding and fixing special quality romium plated brass cupboard cks with six levers of approved ality including necessary screws c. complete.					9.9
	ze 40 mm	20.00	each	319.75	6395.00	9.90.1

23.2	Size 50 mm	20.00	each	333.95	6679.00	9.90.2
24	Providing and fixing chromium plated brass 50 mm cupboard or wardrobe knobs with nuts complete.	10.00	each	151.05	1511.00	9.91
25	Providing and fixing chromium plated brass handles with necessary screws etc. complete:					9.92
25.1	100 mm	20.00	each	206.25	4125.00	9.92.2
25.2	75 mm	20.00	each	176.40	3528.00	9.92.3
26	Providing and fixing wooden moulded corner beading of triangular shape to the junction of panelling etc. with iron screws, plugs and priming coat on unexposed surface etc. complete 2nd class teak wood.					9.11
26.1	50x50 mm (base and height)					
20.1		116.00	metre	354.35	41105.00	9.111.1
27	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-incharge.		metre	102.15	18898.00	9.112
28	Providing and fixing magnetic catcher of approved quality in cupboard / ward robe shutters, including fixing with necessary screws etc. complete.					9.114
28.1	Triple strip vertical type	20.00	each	52.50	1050.00	9.114.1
29	Providing and fixing powder coated telescopic drawer channels 300 mm long with necessary screws etc. complete as per directions of Engineer- in-charge.		one set	414.20	8284.00	9.115
30	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.					9.135

31	Providing and fixing plain lining with necessary screws/nuts & bolts/nails, including a coat of approved primer on one face, and fixed on wooden /steel frame work, complete as per direction of Engineer-in-charge (Frame work shall be paid for separately).					9.140.
31.1	12mm thick commercial ply conforming to IS: 1328 BWR type	139.00	sqm	1224.65	170226.00	9.140.1
32	Providing and fixing factory made uPVC glazed/wire mesh windows/doors comprising of lead free uPVC multi-chambered frame, sash and mullion/coupler (where ever required) extruded profiles having minimum wall thickness of 1.70 mm for Series R1 and R2 profiles and 2.10 mm for Series R3 and R4 profiles conforming to EN: 12608 in any shape, colour and design duly reinforced with galvanized mild steel section made of required shape & size as per CPWD Specification, uPVC extruded glazing beads, interlocks and Inline sash adaptor (where ever required) of appropriate dimension, EPDM gasket, hardware, SS 304 grade fasteners of minimum 8 mm dia with countersunk head, comprising of matching polyamide PA6 grade sleeve for fixing frame to finished wall as per IS 1367: Part 1 to 14, plastic packers, plastic caps and necessary stainless steel screws etc. Profile of frame, sash & mullion (if required) shall be mitred cut and fusion welded/mechanically jointed duly sealed at all corners, including drilling of holes for fixing hardware and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon			1224.00		7.140.1
	sealant over backer rod of approved					9.147A

	size and quality, all complete as per approved drawing conforming to CPWD specification & direction of Engineer-in-Charge. Section of steel			***		
	reinforcement and cross sections of uPVC profiles to be as per design approved by Engineer-in-Charge.					
	Wire mesh / Glazing of plain/ toughened/ laminated/ double glass unit with / without high performance coatings as per design requirements and conforming to IS: 3548 & IS: 16231 shall be paid					
	separately.					
32.1	Three track three panels sliding window with two glazed & one wire mesh panels with Aluminium channel for roller track, wool pile,					
	nylon rollers with SS 304 body.					9.147.A4
32.1.2	Using R3 series with frame (98mm & above) x (40mm & above) & both glazed and fly screen sash (30mm & above) x (55mm & above) with zinc alloy (zamak) powder coated handle					
	on every glazed panel along with multi-point locking system. (Height upto 1.8m).	30.00	sqm	10874.20	326226.00	9.147.A4.2
33	Fixed window / ventilator with mullion / transom.					9.147.C2

33.1	Using R3 series with frame (55mm & above) x (45mm & above) & mullion (55mm & above) x (65mm & above). (Height upto 2.5 metre)		sqm	7827.75	93933.00	9.147.C2.3
34	Providing and fixing SS handles, ISI marked, with necessary SS screws etc. complete:					9.165
34.1	125 mm	40.00	each	119.20	4768.00	9.165.1
35	Providing and fixing 6mm thick both sides Pre-laminated cement bonded wood particle board as per IS: 15786:2008 of approved brand and shade with suitable full threaded steel screws etc. on the backing of racks, drawer, cupboard, kitchen cabinet under kitchen counter etc. all complete as per direction of Engineer-in-charge.		sqm	1010.60	55583.00	9.167
36	Providing and fixing cupboard shutter with 19mm thick one side decorative and other side balancing lamination factory pressed BWP grade marine ply as per IS 710 of approved brand including 2mm thick PVC edge banding tape with hot glue by edge bending machine etc. with auto closing spring loaded hinges (hydraulic type) etc. complete as per direction of Engineer-incharge. (Payment of providing and fixing auto closing hinges shall be paid separately)		sqm	2829.25	226340.00	9 1 6 8
37	Providing and fixing 19mm thick both side balancing lamination factory pressed BWP grade marine ply as per IS 710 of approved brand boxes, shelves, racks, almirah, cupboard and drawer etc. including necessary nails, screws etc. complete as per direction of Engineer-in-charge.		sqm	2593.15	171148.00	9.169

	Providing and fixing stainless steel					
38	soft closing spring hinges at 0 degree					
	hinges (hydraulic type) of approved					
	make/brand to cupboard shutters					
	with full threaded steel screws					
	including making necessary recess in			1,000		
	board and finished etc. complete as					
		E0 00	1	272 00	10.000.00	0.454
	per direction of Engineer-in-charge.	50.00	each	272.00	13600.00	9.171
	Providing and fixing ready made 304		-			-
	grade stainless steel Modular kitchen					
	basket and accessories such as right					
	angle basket (Plain Cup & Saucer,					
	plant, Partition, Bottle rack, Thali,	N.				
	Cutlery) kitchen utensil basket,					
	Dinner set basket, kitchen grain					
	basket, Multipurpose basket as per					
	site requirement including finishing					
	(wherever required) and fittings. The					
20	same shall be fixed with necessary					
39	stainless steel nuts & bolts, Stainless					
	Steel screws & telescopic channel etc.					
	as per direction of Engineer-in-			4		
	charge. (For payment purpose only			- 1		
	weight of Stainless steel basket shall					
	be considered excluding weight of all					
	fixing accessories such as nuts, bolts,			the second	-:	
				All the second	L	
	fasteners telescopic basket channels	1				
	etc. Payment of providing and fixing				50 - 10	
	telescopic channel shall be paid	the or the be	-	500.05	5000.00	0.450
	Separately)	10.00	kg	533.25	5333.00	9.173
	Providing and fixing 2mm thick 16 to					
	19mm wide PVC edge binding tape		II			
1.0	of approved quality for					
40	cupboard/wardrobe shutters					
	including necessary synthetic resin					
	hot pressed to edges on binding					
	machine etc. complete as per					
	directions of Engineer- in-charge.	50.00	metre	43.80	2190.00	9.174

42.1.2		5.00	sqm	1464.85	7324.00	11.41A.3.1
10.1.0	Size of Tile 600 x 600 mm					
42.1	finish of size					11.41A.3
-	Glazed Vitrified tiles Matt/Antiskid					11.71/
	and rubber mallet for placing the tiles gently and easily.		4 6			11.41A
	required thickness, leveling system					
	notch trowel, plier, wedge, clips of					
	Laying of tiles will be done with the					
	chipping diamond cutter only .					
	The tiles must be cut with the zero				7 4 1 1	7 P
	cement and matching pigments etc.		14 6			
	grouting the joints with white					philip
42	slurry @3.3 kg/sqm including					
	sand) jointing with grey cement					
	and shade, laid on 20 mm thick cement mortar 1:4 (1 cement: 4 coarse		- 44			
	brand & manufacturer, in all colours					
	conforming to IS:15622, of approved					
	water absorption less than 0.08% and					
	specified by the manufacturer) with					
	floor in different sizes (thickness to be					
	Providing and laying Vitrified tiles in					
41.2	10 x 120 mm	25.00	Each	170.95	4274.00	10.27.3
41.1	10 x 80 mm	10.00	Each	137.65	1377.00	10.27.2
	direction of Engineer-in-charge.					10.27
	concrete/ masonry, etc. as per					
	including drilling of hole in frame,					176 -
	polyamide PA 6 grade sleeve,					
41	head, comprising of 10 mm dia					
	strength 480 N/mm2), counter sunk			Tarib Filling		
	double threaded 6.8 grade (yield					و امانه
	galvanised (minimum coating 5 micron) dash fastener of 10 mm dia					
	Providing and fixing carbon steel					April 1

43	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.					11 16
43.1	Size of Tile 1000x1000 mm	10.00	sgm	2162.60	21626.00	11.46 11.46.4
44	floor in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid on 20 mm thick cement mortar 1:4 (1 cement: 4 coarse sand) jointing with grey cement slurry @3.3 kg/sqm including grouting the joints with white cement and matching pigments etc. The tiles must be cut with the zero chipping diamond cutter only. Laying of tiles will be done with the notch trowel, plier, wedge, clips of required thickness, leveling system and rubber mallet for placing the tiles gently and easily.					11.41A
	Double charge vitrified tile polished finish of size					
44.1	Size of Tile 1000 x 1000 mm	147.00	sqm	1801.7	264850.00	11.41A.1.5

Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound, jointing tapes, finishing with jointing 12.45

45

31

15.1	12.5 mm thick tapered edge gypsum moisture resistant board	75.00	sqm	1529.10	114683.00	12.45.3
						-
		- 4				
	cherdanig die cost of panithig with.			75.50		
	of the Engineer in Charge but excluding the cost of painting with :					
	drawings, specification and direction		<b>3</b>			i ne
	suitably fixed, all complete as per					
	with frame of perimeter channels		المجائر و			
	fittings, grills, diffusers, cutouts made			-		
	specification and also including the cost of making openings for light				4	
	board, all as per manufacturer's		Partie			4
	two coats of primer suitable for					
	150 mm on both sides of joint and					

	Providing and fixing false ceiling at					
	all heights with integral densified					
	calcium silicate reinforced with fibre					
	and natural filler false ceiling tiles of					
	Size 595x595 mm of approved					
	texture, design and patterns as per		4 +			1991 113
	CPWD Specification 2019, to be laid					
	in true horizontal level suspended on					
	inter locking metal T-Grid of hot		eric land		1. 10. 11. 1	
	dipped galvanised iron section of 0.33					
						1 3 to 1 1
	mm thick (galvanized @ 120 grams					
	per sqm including both					
	sides)comprising of main-T runners					
	of size 24x38 mm of length 3000					1
	mm,cross - T of size 24x32 mm of					
	length 1200 mm and					
	secondaryintermediate cross-T of size					
	24x32 mm of length 600 mm to					
	formgrid module of size 600 x 600					
	mm, suspended from ceiling using					
	galvanised mild steel items					
	(galvanizing @ 80 grams per sqm) i.e.					
	12x50 mm long dash fasteners, 6 mm					
	dia fully threaded hanger rod upto					7 ( 20)
	1000 mm length and L-shape level					
	adjuster of size 76x25x25x1.6 mm					
	fixed with grid and Z cleat of size					
	25x37x25x1.6 mm thick with precut				H13 TALE	
	hole on both 25 mm flange to pierce					
	into 12x50 mm or even bigger size					
	dash fastener if require, fixed with					
	Glavanised iron perimeter wall angle					
	or size 24x24x0.40 mm of length 3000					
	mm to be f ixed on periphey wall /					
-	partition with the help of plastic rawl					
	plugs at 450 mm center to center and					
7	40 mm long dry wall S.S screws. The					5 7 5 5 5
	work shall be carried out as per					
	specifications, drawing and as per					26.22
	directions of the Engineer-in-Charge.					26.22
	With 15 mm thick tegular/butt edged					
	without perforation plain/designer					
	light weight calcium silicate Anti-					
	Microbial Bio-Safe coated false ceiling	F <sub>1</sub>				
	tiles Confirming to JIS-Z2801 and	30.00	sqm	2301.1	69033.00	26.22.2
			-		Au.	

	ASTM G-21					
		. 4				
46	12 mm cement plaster:					13.1
46.1	1:6 (1 cement : 6 fine sand)	100.00	sqm	333.35	33335.00	13.1.2
	15 mm cement plaster on the rough					
47	side of single or half brick wall of mix	h - 1	No. of			
						13.2
47.1	1:6 (1 cement: 6 fine sand)	100.00	sqm	383.00	38300.00	13.2.2
48	Finishing walls with textured exterior		L. L.			
10	paint of required shade:					13.45
	New work (Two or more coats					
48.1	applied @ 3.28 ltr/10 sqm) over and					
10.1	including priming coat of exterior					
	primer applied @ 2.20kg/10 sqm	200.00	sqm	223.60	44720.00	13.45.1
	Finishing walls with ready mixed					
	Premium acrylic emulsion paint					
	(Company Depot Tinted) having	- 6	E 1.			
49	VOC less than 50 gm/litre and UV					
	resistance as per IS 15489:2004, Alkali					
	& fungal resistance, dirt resistance exterior paint of required shade with		-1 4			
	silicon additives.		- 4			13.48A
	New work (Two or more coats					13.46A
	applied @ 1.43 litre/ 10 sqm over and					
49.1	including priming coat of exterior	H H				
	primer applied @ 0.90 litre/10 sqm.	100.00	sqm	181.25	18125.00	13.48A.1
	Providing and applying white	100.00	Squi	101.20	10125.00	13.40A.1
	cement based putty of average					
	thickness 1 mm, of approved					
50	brand and manufacturer, over the					
	plastered wall surface to prepare					
	the surface even and smooth					
	complete.	314.00	sqm	156.05	49000.00	13.80
	Wall painting with acrylic emulsion					
	paint, having VOC (Volatile Organic					
<b>E</b> 1	Compound ) content less than 50					
51	grams/ litre, of approved brand and		-			
	manufacture, including applying additional coats wherever required,					
			1			La dia
	to achieve even shade and colour.					13.82

52	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content.					13.85
52.1	With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre	314.00	sqm	73.95	23220.00	13.85.3
	Polishing in high gloss/matt finish melamine clear polish on wood work in required color/wooden shade texture with following process in the sequence as detailed below:  1. The surface to be polished is rubbed with sand paper 80/120 no. and then with sand paper of 160/180 nos.					
	2. Applying two coats of sealer with spray gun and allowing sufficient drying time for 1st coat and 2nd coat is allowed to dry for 8 to 12 hrs.  3. On drying of sealer coat, wet rubbing with emery cloth of finer grading with ample water to remove					
53	excess sealer layer and make the surface further smooth after this wet rubbing, then surface is applied with special grade melamine fillers to fill all the small and big holes/grooves etc. Filler coat to be allowed to dry	4				
	for 4 to 6 hrs on which again a light wet rubbing is done this surface is further allowed to dry for 12 hrs. 4. On this, 1st coat of melamine polish is applied with spray gun using melamine clear polish and					
	melamine thinner in required proportion. This 1st coat is allowed to dry for 24 hrs then this dry surface is again fine wet rubbed smooth, which is further allowed to dry for 12 hrs. The final melamine polish is applied					
	with compressor pressure spray gun using melamine clear polish and melamine thinner mixed in required proportion complete as per direction	<b>1</b> 75.00	sqm	1360.45	238079.00	13.116

pairs to plaster of thickness 12 m to 20 mm in patches of area					
sq.meters and under, including thing the patch in proper shape,					
king out joints and preparing d plastering the surface of the alls complete, including disposal rubbish to the dumping					
ound, all complete as per rection of Engineer-in-Charge.					14.1
	15.00	sqm	547.40	8211.00	14.1.1
i	ound, all complete as per ection of Engineer-in-Charge. th cement mortar 1:4 (1cement: Fine sand) molishing cement concrete	bund, all complete as per ection of Engineer-in- Charge.  th cement mortar 1:4 (1cement: 15.00 molishing cement concrete mually/ by mechanical means luding disposal of material	ound, all complete as per ection of Engineer-in- Charge.  th cement mortar 1:4 (1cement: Fine sand)  molishing cement concrete anually/ by mechanical means	ound, all complete as per ection of Engineer-in- Charge.  th cement mortar 1:4 (1cement: Fine sand)  molishing cement concrete nually/ by mechanical means luding disposal of material	ound, all complete as per section of Engineer-in- Charge.  th cement mortar 1:4 (1cement: 5100 sqm 547.40 8211.00 molishing cement concrete should by mechanical means

55.1	Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	3.25	cum	2434.25	7911.00	15.1.2
56	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge.		cum	3551.25	3551.00	15.30
57	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.					15.7
57.1	In cement mortar	5.50	cum	2060.20	11331.00	15.7.4
58	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead:					15.12
58.1	Of area 3 sq. metres and below	5.00	each	367.20	1836.00	15.12.1
58.2	Of area beyond 3 sq. metres	4.00	each	502.75	2011.00	15.12.2
59	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.					
59.1	For thickness of tiles 10 mm to 25 mm	30.00	sqm	73.4	2202.00	15.23.1
60	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	125.00	sqm	266.45	33306.00	15.25
61	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.	100.00	sqm	54.65	5465.00	15.56

	Dismantling aluminium/ Gypsum					
	partitions, doors, windows, fixed					
	glazing and false ceiling including					
62	disposal of unserviceable material					
	and stacking of serviceable material					
	with in 50 meters lead as directed by			*		
	Engineer-in-charge.	41.00	sqm	56.35	2310.00	15.57
	Disposal of building rubbish /					
	malba / similar unserviceable,					
	dismantled or waste materials by					
	mechanical means, including					
63	loading, transporting, unloading to					
03	approved municipal dumping					
	ground or as approved by					
	Engineer-in-charge, beyond 50 m					
	initial lead, for all leads including all					
	lifts involved.	50.00	cum	263.95	13198.00	15.60
	Taking out existing CC interlocking					
	paver blocks from footpath/ central					
	verge, including removal of rubbish					
	etc., disposal of unserviceable					
64	material to the dumping ground, for					
	which payment shall be made					
	separately and stacking of serviceable	F				
	material within 50 metre lead as per					200
	direction of Engineer-in-Charge.	20.00	sqm	131.75	2635.00	16.83
	Laying old cement cocrete					
	interlocking paver blocks of any					
	design/ shape laid in required line,					1,000
	level, curvature, colour and pattern					h
	over and including 50 mm thick					
65	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		- 1 -			
	blocks shall be supplied by the					
	department free of cost).	20.00	sqm	402.95	8059.00	16.84
	Providing and fixing Stainless Steel A					
	ISI 304 (18/8) kitchen sink as per					
	IS:13983 with C.I. brackets and					
66	stainless steel plug 40 mm, including					
	painting of fittings and brackets,					
	cutting and making good the walls					
	wherever required :					17.10
66.1	Kitchen sink with drain board					17.10.1

66.1.2	510x1040 mm bowl depth 250 mm	1.00	each	6945.60	6946.00	17.10.1.1
67	Providing and fixing 8 mm dia C.P. / S.S. Jet with flexible tube upto 1 metre long with S.S. triangular plate to Eureopean type W.C. of quality and make as approved by Engineer - in -charge.	1.00	each	349.15	349.00	17.16.1.1
68	Providing and fixing CP Brass 32mm size Bottle Trap of approved quality & make and as per the direction of Engineer-in-charge.	2.00	each	1034.80	2070.00	17.22A
69	Providing and fixing CP Brass Single lever telephonic wall mixer of quality & make as approved by Engineer in charge. (a) 15 mm nominal dia	1.00	each	6940.75	6941.00	17.22B
70	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.	1.00	each	1607.95	1608.00	17.31
71	Providing and fixing toilet paper holder.					17.34
71.1	C.P. brass	1.00	Each	803.70	804.00	17.34.1
72	Providing and fixing soil, waste and vent pipes:					17.35
72.1	100 mm dia					17.35.1
72.1.2	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	30.00	metre	1169.30	35079.00	17.35.1.3
73	Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.					17.38
73.1	100 mm dia pipe					17.38.1
73.1.2	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	4.00	each	567.20	2269.00	17.38.1.3
74	Providing and fixing plain bend of required degree.					17.39
74.1	100 mm dia					17.39.1

7410	Hubless centrifugally cast (spun) iron					
74.1.2	pipes epoxy coated inside & outside IS:15905	4.00	Each	368.00	1472.00	17.39.1.3
75	Providing and fixing heel rest sanitary bend					17.40
75.1	100 mm dia pipe					17.40.1
75.1.2		4.00	each	548.70	2195.00	17.40.1.2
76	Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete.				2175.00	17.44
76.1	100x100x100 mm					17.44.1
76.1.2	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	4.00	each	581.45	2326.00	17.44.1.3
77	Providing and fixing shielded coupling for Hubless centrifugally cast iron pipe					17.57A
77.1	100 mm dia					17.57A.1
77.1.2	SS 304 grade coupling with EPDM rubber gasket	20.00	each	432.05	8641.00	17.57A.1.1
78	Providing and fixing M.S. stays and clamps for sand cast iron/centrifugally cast (spun) iron pipes of diameter:					17.59
78.1	100 mm	5.00	each	139.70	699.00	17.59.1
79	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					
	•					17.60
79.1	100 mm inlet and 100 mm outlet					17.60.1
79.1.2	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	0.00	4			
	TO 10.1000	2.00	each	854.55	1709.00	17.60.1.3

	Providing and fixing floor mounted,					
	white vitreous china single piece,					
	double traps syphonic water closet of					
	approved brand/make, shape, size		- P			
	and pattern including integrated					
	white vitreous china cistern of					
6.14	capacity 10 litres with dual flushing					
80						
	system, including all fittings and					
	fixtures with seat cover, cistern					
	fittings, nuts, bolts and gasket etc					
	including making connection with					
- 9	the existing P/S trap, complete in all					
	respect as per directions of Engineer-					
	in-Charge.	1.00	each	18212.90	18213.00	17.81
	Providing and fixing Chlorinated					
	Polyvinyl Chloride (CPVC) pipes,				-41	
	having thermal stability for hot			100		
	& cold water supply, including					
	all CPVC plain & brass					
	threaded fittings, including fixing					
81	the pipe with clamps at 1.00 m					
	spacing. This includes jointing of				1. (Cont.)	
	pipes & fittings with one step				2 S C T L L	
	CPVC solvent cement and testing of					
-	joints complete as per					
	direction of Engineer in Charge.					
	Internal work - Exposed on wall	9			_	
81.1	25 mm nominal dia Pipes					
81.1		20.00	metre	401.55	8031.00	18.7.3
	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					
82	jointing of pipes & fittings with		4 -			
	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					
	Concealed work, including			[) I		
	cutting chases and making good					18.8

	the walls etc.					
			5.7			
						-
						-
		-				
82.1	20 mm nominal dia Pipes	50.00	metre	537.60	26880.00	18.8.2
00	Providing and fixing brass bib cock of		THE CLIC	007.00	20000.00	10.0.2
83	approved quality:					1015
83.1	15 mm nominal bore	4.00	each	353.25	1/12 00	18.15
	Providing and fixing uplasticised	TO ASSTRUCTION AND THE PROPERTY OF THE PROPERT	Cacit	333.23	1413.00	18.15.1
84	PVC connection pipe with brass		<u> </u>			
7.7	unions.					10.01
84.1	45 cm length					18.21
		4.00	2 - 1		204.00	18.21.2
V 1.1.Z		4.00	each	97.75	391.00	18.21.2.
	Providing and fixing C.P. brass angle valve for basin mixer and geyser					
85						
	points of approved quality conforming to IS:8931 :					40.50
85.1	15mm nominal bore.	2.00	1	E74.00	444000	18.53
00.1		2.00	each	574.30	1149.00	18.53.1
	Providing and fixing C.P. Brass		7 1 7			
86	extension nipple (size 15mmx50mm)					
	of approved make and quality as per		- 1			
	direction of Engineer-in-charge.	4.00	each	74.80	299.00	18.53A

7.5	Constructing brick masonry manhole in cement mortar 1:4 (1 cement: 4 coarse sand) with R.C.C. top slab with 1:1.5:3 mix (1 cement: 1.5 coarse sand (zone-III): 3 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement: 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 :					19.7
87.1	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):					19.7.1
87.1.2	With common burrst clay F.P.S. (non modular) bricks of class designation 7.5	1.00	each	12770.55	12771.00	19.7.1.1
88	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:					19.4
88.1	100x100 mm size P type					19.4.1
88.1.2	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	1.00	each	2707.65	2708.00	19.4.1.1

	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse					
89	sand: 10 graded stone aggregate 40					
0)	mm nominal size) up to haunches of					
	S.W. pipes including bed concrete as					
	per standard design :					19.3
39.1	100 mm diameter S.W. pipe	25.00	metre	458.50	11463.00	19.3.1
	Providing and laying water					
	proofing treatment in sunken					_
	portion of WCs, bathroom etc.,					
	by applying cement slurry mixed		Mark of			
	with water proofing cement					Street, Street
	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.					
90	(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				100 00 00 10	h
	mixed slurry.	5.00	sqm	617.05	3085.00	22.50

	Providing and fixing factory made 18					
	mm thick single extruded WPC					
	(Wood Polymer Composite) solid					
	plain white colour board Jali, CNC	- 1				
	(Computer numeric control) routed	100				
	of approved design by Engineer-in -					
	charge which are machine cut for	L				
	duct/shaft covering, partitions and					
	facades comprising of virgin polymer	-				
	of K value 58-60 (Suspension Grade),					
	calcium corbonate and natural fibers		3 491			
	(wood powder/ rice husk/wheat					
	husk) and non toxic					
	additives(maximum toxicity index of		( 4			
	12 for 100 gms) having minimum					
	density of 650 kg/cum and screw		mar er'i			
	withdrawal strength of 1800 N (Face)	- 11				
	minimum compressive strength 50		h i			
91	N/mm2, modulus of elasticity 850					
	N/mm2 and resistance to spread of		. 91			
	flame of Class A category with		- 10			
	properties of being termite/borer		And a septiment			
	proof, water/moisture proof and fire		- 19			
	retardant and fixing on M.S (mild					
i .	steel) frame made of 25 x 25 x 1.5					
	mm square hollow box section		A. 1			
	including applying a priming coat of		- 101			
	approved steel primer, placed at grid					
	made at 1.0 x 1.0 m or as per					
	requirement at site with necessary					
	stainless steel fasteners and SS screws					
	etc., all complete as per direction of					
	Engineer-In- Charge.					
	(Note: M.S (mild steel) framework					
	with priming coat and necessary SS					
	fasteners and SS screws shall be paid					
	separately.	20.00	sqm	3437.15	68743.00	26.91

				Total	3491353.63	
	Item No 1 to 92 on account of GST @ 0		u ractor	On DSK	3491353.6 3	
	Modified Estimated cost after using C	orrection	n factor	Total	3588236.00	
	CAUSSITICATION.	42.00	sqm	5159.90	216716.00	27.3.2
	Classification.	42.00	0.0333	5150.00	01/71/00	07.0.0
	zone except cold climate and refer ECBC- 2017 for climate zone					
	equal 15 degree and for all climate		<b>L</b>			
	north having latitude more than or					
	more than 3 W/m2 degree K etc. for					
	more than 0.50 and U value of not					
	Solar Heat Gain Coefficient of not					
	light transmittance (VLT) of 35-55%,					
	make having properties as visible					
	glass fully toughened of approved					
	+ 6mm Clear Glass (inner side) both					
	face # 2 (outer side). + 12mm Airgap					-
12	completeFloat glass 6mm thick substrate with reflective coating on				_ '	1.
92	direction of Engineer-in-charge					
	specifications, drawings and			4 10 14		
	secondary sealant) etc. as per			-		
	desiccants, sealant (Both primary and					
	gasket perforated aluminium spacers,					
	approved make and including EPDM					
	side), both glass fully toughened of					-
	Airgap + 6mm Clear Glass (inner		7 (1)			
	on face #2 (outer side), + 12mm				2 7 7 7	
	thick substrate with reflective coating		P 10			41.
	windows. ventilators and partition etc. consisting of float glass 6mm			8.4		
	sealed double glazing unit in					
	Providing and fixing hermetically					

	Providing and fixing U Baffle G.I.					
	panel False ceiling Vertical Linear					
	Baffle Ceiling made out of G.I.The					
	baffle blade shall be size of					
	100x50x3600mm in Wooden Shade					
	powder coated finish of approved					
	shade. The baffle blade shall be		and the state of			
-	suspended using C- channel/ Slotted					
1	U-profile powder coated to black					
	color at an on-center spacing of 100					
	mm.The C-Channel/U profile of size					
	20mmX30mmX3750mm shall be					
	suspended at every 1200mm on-		4		474	
	centre using 6mm threaded		p. 4.			
	rod/4mm rod/12 gauge hanger wire		Hd			
-	from the structural soffit at every					
	1200mm intervals using Uprofile		et in		7 7 4 7	
-	hanger/C-channel hanger. Multiple		THI THE			
	lengths of U- profile/C-channel shall					
93	be connected using Uprofile		- 17		4 . 4	
	connector/ C-Channel connector. The					
	baffle blades shall be suspended from					
	the C-channel/Uprofile carrier bars		- H			
	at the required intervals 100mm Clear				HE - 2-1	
	Gap Between 2 Baffle. using baffle					
	hangers. Spacing between blades					
-	shall be adjusted using the slots in		- I			
	carrier or the special spacer		F"			
	arrangement provided for this	F 4 1				
	purpose. Multiple lengths of baffles					
	shall be connected using Baffle					
	Jointer and ends covered with end					
	caps (Black color).Installation shall be					
	according to the instructions					
	provided by manufacturer complete					
	in all respects and as per instructions					
	of Engineerin-charge (Make:					
	Gyptech, Armstrong, Hunter					
	Douglas).	36.00	Sqm	7329.00	263844.00	NS
	Providing and fixing stainless steel					
	304 sliding door bolts of approved					
94	quality and make with nuts and					
	1	20.00			13798.00	

95	Providing and fixing bright / matt finished stainless steel 304 tower bolts of approved quality and make with necessary screws etc. complete 250X10mm	20.00	each	292.75	5855.00	N.S
96	Providing & fixing C.P. Health Faucet of premium quality with 1.00 Meter Long Flexible Tube and Wall Hook etc. complete as per direction of Engineer in Charge. (CAT No. ALD-573 of Jaquar, Kohler, Roca or equivalent)	1.00	each	1750.90	1751.00	
97	Providing and fixing stainless steel grating with / without waste hole of approved quality as per direction of engineer-in-charge. (125mm normal dia)	2.00	each	234.80	470.00	N.S
98	Providing and fixing premium quality CP brass overhead shower with Arm of 15 or 20 mm inlet as per direction of engineer-in-charge. (CAT No. Awaken K-72425IN-CP of Kohler, Jaquar, Roca or equivalent) 175 to 200mm nominal dia	1.00	each	4948.05	4948.00	
99	Providing and fixing CPVC Ball Valve of approved quality complete as per direction of Engineer-incharge.			1710.00	1710.00	14.0
99.1	32 mm nominal bore	1.00	each	596.45	596.00	N.S
100	Providing & fixing white vitreous china table top wash basin of minimum size 530X420X140mm With 32 mm C.P. brass waste coupling including cutting holes & making good the supporting platform & wall wherever required complete work shall be executed as per manufacturer specification and as per direction of Engineer in Charge. (CAT No. JDS-WHM-25907N Jaquar, Kohler, Roca					
	or equivalent	2.00	each	9738.40	19477.00	NS

101	Providing & fixing tall boy single lever basin mixer with 150mm extention body 600mm long braided hoses including all fittings & fixtures etc. complete as per direction of Engineer in Charge. (CAT No. ARI-39005B Jaquar, Kohler, Roca or equivalent)	1.00	each	6106.40	6106.00	N.S
102	Providing and fixing premium quality C.P soap dish holder of standard quality and make with necessary fitting arrangements as per direction of Engineer in Charge. (CAT No. ACN-1131N Jaquar, Kohler, Roca or equivalent)	1.00	each	865.90	866.00	MR
103	Providing and fixing premium quality 600 mm long Stainless Steel towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fitting arrangement of approved quality and as per direction of Engineer in Charge. (CAT No. ACN-11118M Jaquar, Kohler, Roca or equivalent	2.00	each	2003.50	4007.00	MR
104	Providing and fixing premium quality fancy two way C.P. brass bib cock with wall flange of approved quality conforming to IS:8931: all as per manufacturer specification and as per direction of Engineer in Charge. 15 mm nominal bore (CAT No. ARI-39041 Jaquar, Kohler, Roca or equivalent	2.00	each	2200.75	4402.00	NS

	Providing and fixing horizontal level					
	Open cell Aluminium lay-in ceiling					
	tiles with border panels forming				112-1-12	
	board edge of size 600x600x38mm					
	(Nominal) having cell size of					
	150x150mm made of AA-3003-H14					
	(Tempered) grade Aluminium	L 1				
	suitable for architectural finishes in					
	0.35mm thickness as per in IS:2676					
	(1981) in Global white color. The tile					
	shall be electrostatically polyester					
	powder coated using RoHS			N .		
	compliant powder having coating					
	thickness ranging from 60-80	14				
	microns. The powder coating shall					
	pass Salt Spray Test for 750 hours as					
	per ASTM B117, QUV -A Test for					
	1000 hours as per ASTM G-154 -					
	(Cycle - 1) and Humidity test for					
	1000 hours as per DIN 50017. The					1.41
	powder coating shall have an					
	adhesion of GT0 as per EN ISO 2409.					
	The shade variation across batches					
	shall be delta E<1 using					
	Excite/BYK Gardner instrument and					
	gloss level of 25±5% at 60° as per					
	ASTM D523. Tile shall have a Fire					
	Performance class A as per GB 8624-					
	2012. Installation should be carried		E -			
	out as per the drawing or as per the					
	direction of engineer in charge	16.00	Sqm	3290.00	52640.00	NS
	Providing and fixing of Roller					
	type Zebra blinds to layered with					
	fabric one (shear type) and fabric					
	two (black out type), the fabric					
	one will be in the front side and					
	with Partial visibility and fennic					
	two block out type shall be in the					
11111	black side. The fabric thickness not					
	less than 0.35 mm and fabric					
	classficiation M-I both the blinds					
	shall be fixed using specified		11			
	channels as per specification					
	7.					
	including all accessories texture and			l I		

	of Engineer-in-charge.					
		19				
				.,		
	Providing and fixing premium					
	quality C.P. brass sink mixture with		" T			
	swinging casted spout (wall mounted model) with connecting legs and wall					
107	flanges all complete of approved		- L			
	quality and as per direction of	- 1				
	Engineer in Charge. (CAT No. ARI-					
	39165 Jaquar, Kohler, Roca o equivalent	2.00	each	5145.30	10291.00	MR
	Total "B"				536651.00	
	Total A+B				4028004.63	
	Say				4028005.00	

## Electrical Executivation ESTIMATE

Name Of work:-Renovation of VC office at Central Sanskrit University 56-57, Institutional Area,

Item No.		Q	ty	Rate	Amount	
						Remarks
	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.					
(a)	Group C					MANUAGO B A A
2	Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existing surface/ recessed steel/ PVC conduit as required.	\$0	Pts.	1845	166050.00	1.3.3
(a)	3 x 1.5 sq. mm	180.00	Mtrs.	05.00	17100.00	1 17 0
(b)	3 x 4 sq. mm	220.00	Mtrs.	95.00 206.00	17100.00	1.17.3
(c)	3 x 6 sq. mm	120.00	Mtrs.	304.00	45320.00	1.17.21
(d)	6x4 sq. mm	60.00	Mtrs.	396.00	36480.00 23760.00	1.17.24
	Supplying and fixing of following sizes of steel conduit along with accessories in surface/recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required.					
(a)	20 mm	260.00	Mtrs.	223.00	57980.00	1.20.1
(b)	25 mm	220.00	Mtrs.	256.00	56320.00	1.20.2
	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc.  as required.				30320.00	
	3 Module (100mmX75mm)	20.00	nos	327.00	6540.00	1.27.2
	6 Module (200mmX75mm)	40.00	nos	402.00	16080.00	1.27.4
	8 Module (125mmX125mm)	10.00	nos	454.00	4540.00	1.27.5
(d)	12 Module (200mmX150mm)	6.00	nos	547.00	3282.00	1.27.6
5	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.					
(a)	5/6 A switch	152.00	nos	103.00	15656.00	1.24.1
(b)	3 pin 5/6 A socket outlet	40.00	nos	122.00	4880.00	1.24.4
(c)	15/16 A switch	60.00	nos	156.00	9360.00	1.24.3
		AN AND DESCRIPTION OF THE PARTY	200		THE PARTY OF THE P	The second second

. ]	Supplying and fixing two module stepped type electronic fan ulator on the existing modular plate switch box including connections but excluding modular plate etc. as required.	2.00	Nos	369.00	738.00	DSR-1.25
	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.					
a	25 mm	70.00	mtr	145.00	10150.00	1.21.2
æ	SITC of PVC (Minimum 15 Kg/Sqcm pressure rated) Drain Water Piping complete with fittings (elbows, tees, reducers, sockets etc.), supports, jointing and any other item required to make the system complete. Nominal Diameters of Pipes in mm as indicated below:					
(a)	25 mm dia.	70	Rmt	220	15400.00	MR
	Supplying & fixing suitable size GI box wih modular plate and cover in front on surface or in recess including providing and fixing 25 A modular socket outlet and 25 A modular SP MCB, "C" curve including connections, painting etc. as required.	5.00	nos	727.00	3635.00	1.57
10	Supply, installation of 400 mm sweep single phase plastic body wall fan having air delivery between (65-75) CMM speed 1300 to 1400 rpm including connection and testing etc complete as rqd.	15	Nos	3005	45075.00	MR
11	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
(a)	Single pole	36.00	Nos	256.00	9216.00	2.10.1
12	Supplying and fixing following rating, four pole, 415 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required.					
(a)	100A	1.00	Nos	1227.00	1227.00	2.13.3
13	Providing and fixing following rating and breaking capacity and pole MCCB with thermomagnetic release and terminal spreaders in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required.					
a	100 A,30KA,FPMCCB	1.00	Nos	7723.00	7723.00	2,2.13
14	C C 11 1 C C C C					
(a	12 way (4 + 36), Double door	00.1	Nos	12833.00	12833.00	2.5.3

	Supplying Laying and fixing of one number PVC iulated and PVC sheathed / XLPE aluminium conductor power cable of 1.1 kV grade of following size on wall surface as required.					
	4 x25 Sq.mm	60	mtr	344	20640.00	140
	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				20640.00	MF
a 	4 X 25 sq. mm (28mm)  Supply, Installation, Testing and Commissioning of	4.00	Nos	315.00	1260.00	9.1.3
	ceiling fan with Brush Less Direct Current (BLDC) Motor, class of insulation: B, 3 nos. metal (Aluminum alloy) blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, steel/Al body Power Factor not less than 0.9, Service Value (CM/M/W) minimum as below, 350 RPM (tolerance as per IS: 374-2019), THD (Total Harmonic Distortion) less than 10%, suitable for operation with regulator for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 degree C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC Ceiling Fan compliant to IS 374:2019 fan Supply, earthing etc. complete as req					
a	1200mm, service value ≥ 6.0 CM/Min/Watt, air delivery 210 CM/Min (Minimum)					
18	Supplying, installation, Testing & Commissioning of LED Recessed/ surface Down lighter (Round/ square/ Rectangular) SMD type of following body material with PMMA and prismatic diffuser and construction as per IS: 10322 with driver as per the requirement with Driver efficiency >85%, Operating voltage AC 140-270 Volt, frequency 50/60 hz, Operating temp range -15 deg to 40 deg	5	Nos	2230	13380.00	2.2
	centigrade, internal surge protection of 2.5 KV with Short & Open circuit protection ,THD < 10% , P. F.≥0.95, IP20, CRI >80 , UGR (Unified Glare Rating) < 19, Flicker free (flicker should be below 5%), life time (LED,Driver & electrical circuitary), of minimum 50000 Burning Hours with 70% of initial Lumen maintained till life ends , CCT 3000°K / 4000°K / 5700°K / 6000°K / 6500°K (As per ANSI Bin), SDCM (Standard Deviation Color Matching) <3, Maximum power consumption should not more than the specified rating and Fixture shall be confirming to relevant BIS standards and trade mark certificate (T.C.). Manufactures Word Mark/ Name Engraved/ Embossing/ Screen printing on housing Complete in all respect i/c connections with 1.5 sq mm FRLS, PVC insulated copper conductor single core cable and earthing etc. as required with Minimum 5 year OEM warranty. System lumen efficacy ≥105 and <120 lm/Watt output .LM79 & LM80 Test report from NABL lab for all testing required for LED fixtures as per BIS shall be submitted. Shape size and CCT shall be as approved by Engineer-in-Charge as per requirement. (Thermal management: heat sink of aluminum housing such that LED junction temperature shall not rise above 90°C)					

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9	4.6 TR		Nos	52799	211196.00	7.4.10
	following minimum capacity 4 way Cassette Type Indoor ceiling mounted unit equipped with synthetic washable media pre-filter, fan section with low noise fan / dynamically balanced blower, multispeed motor, coil section with DX Copper coil, electronic expansion valve, outer cabinet, drain pump, grill, necessary supports, vibration Isolation, Corded remote control etc., suitable for operation on single phase 230 V ± 10%, 50Hz AC supply, complete, as required. The Indoor units must shut down upon receiving a singal from the BMS System/Fire Signals. The system shall be capable to adjust air flow as per room requirement in auto mode. The cooling capacity of indoor unit will be at air inlet conditions of 27 Degree C DB and 19 Degree C WB temperature. (Make will be same as of Outdoor)					
21	Supply, Installation, Testing and Commissioning of	20	HP	19111	382220.00	7.1.3
a	ECSBC Building) 14 HP to 22 HP	E				200.000 0000
	Variable Refrigerant Flow/Variable Refrigerant Volume air cooled Outdoor units suitable for cooling/heating having 100% hermetically sealed inverter type twin Rotary/Scroll Compressor(s), minimum two compressors (with individual seperate PCB) for above 14HP modules, microprocessor based Controller, top discharge type condensing unit(s), with R-410-A Refrigerant or equivalent, vibration Isolators with suitable foundation etc. complete as required. To have better efficiency condensor fan shall be capable to operate at different speed with respect to load. The unit shall deliver the rated capacity and in confirmation as per IS 18728:2024 and CPWD Specifications and work even at 50°C ambient temperature without tripping. The system shall be able to deliver 100% of the rated capacity upto 39 Degree Celcius. The unit shall be suitable to work on 400V +/- 10%, 3 Phase, 50Hz AC power supply and BMS compatible. The unit shall be filled with first charge of the refrigerant and ready for use as required. The condenser should be coated with a hydrophilic film to prevent water accumulation on the surface of the heat exchanger, enhance water dispersion, and reduce the risk of degradation, thereby improving overall performance and durability. The Indian Seasonal Energy Efficiency Ratio (ISEER) of the unit shall be as per Energy Conservation and Sustainable Building Code (ECSBC) 2024 as below and complete as per CPWD specification, connections, interconnections etc. as required. (For capacity <40 kWr ISEER 5.4, Capacity > 40 and <70 ISEER 5.5, Capacity > 70 ISEER 5.6 for					
20	150 mm width X 50 mm depth X 1.6 mm thickness  Supply, Installation, Testing & Commissioning of Modular type	60	mtr	604	36240.00	MR
a)	including bolts & nuts, painting suspenders etc as required	e zemi				
**	Supplying and installing following size of perforated painted the powder coating M.S. cable trays with perforation not more than 17.5%, in convenient sections, joined with connectors, suspended from the ceiling with M.S. suspenders including belts to note pointing supplying belts to note pointing supplying the state of perforated painted.					

,				Total Rs	1402001.00	11)
c	19 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm	25	mtr	739	18475.00	7.14.5
d	15.86 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm	30	mtr	615	18450.00	7.14.4
c	12.7 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm	35	mtr	487	17045.00	7.14.3
b	9.5 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm	30	mtr	346	10380.00	7.14.2
a	6.4 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm	40	mtr	256	10240.00	7.14.1
	Supply, Installation, testing and commissioning including vaccumiazation and Nitrogen testing of following nominal sizes of soft/hard drawn copper refrigerant piping for VRV/VRF system, complete with fittings, with suitable adjustable ring type hanger supports, jointing/brazing including accessories, insulated with XPLE Class-O tubular insulation/with Class-O closed cell elastometric nitrile rubber tubular sleeves sections of 19 mm thick insulation as given below for Suction and Liquid lines, all accessories as per specifications etc. as required:					
(a)	2 core X 2.5 sq. mm (between indoor and out door units)	120	mtr	180	21600.00	MR
	Supplying and drawing of following sizes of FRLS PVC insulated round sheathed flexible copper conductor cable in the existing PVC conduits / cable tray etc as required.					



## Central Sanskrit University

N.I.T. No: 01/CSU/HQ/EC/25-26

Name of work:- Renovation of Ground Floor Space (Lift Side) for Vice Chancellor's Secretaria:

## SCHEDULE OF QUANTITY

Name of the Contractor						
Sl. No.	Name of component	Estimated cost	Percentage above or below the estimated cost	% in Figures	Total Cost	
1	Civil Work	Rs.4028005	#	#	#	
2	Elect Work	Rs.1402001	#	#	#	
	Grand Total	Rs. 5430006			#	

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1 ) 7	tod.	#
Da	icu.	TT

Signature of Contractor #

# To be filled in by the contractor