

राया—सूचाना (बागला), जिला साबा—181143, जम्मू (जम्मू एवं कश्मार) Rahya-Suchani (Bagla), District: Samba – 181143, Jammu (J&K)

TENDER

FOR

CONSTRUCTION OF SATISH DHAWAN
CENTRE OF SPACE SCIENCE FOR ISRO AT
CENTRAL UNIVERSITY OF JAMMU,Rahya
Suchani (Bagla) Distt.SAMBA

Estimated Cost

Rs. 4.36 Cr.



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SECTION 1

LIST OF IMPORTANT DATES PRESS NOTICE NOTICE INVITING TENDER

NIT No.:- 09/2019-20 DT.: 31.05.2019

Name of work.:- Construction of SATISH DHAWAN CENTRE FOR SPACE SCIENCE

OF ISRO at Central university of jammu Rahya suchani (Bagla) Distt.

Samba

2.1 Completion Period for construction: 12 <u>Months</u>

2.2 Defect Liability period is: 05 Years

3. Date of Issue of Notice Inviting Bid	03/06/ 2019
4. Period of downloading Tender Documents:-	From 03/06/ 2019 Time 15:00Hrs.
	To 26/06/ 2019 Upto 14:00 Hrs.
	Places(s) https://cujammu.euniwizarde.com
5. Time, date and Place of pre-bid Meeting	18/06/ 2019
	Time 15:00Hrs.
	Place: Office of the Executive Engineer, Central University of Jammu
6. Deadline for Receiving Bids	26/06/2019 Time 16:00 Hrs.

7. Time and date for opening Technical Bid/Bids	28/06/ 2019
	Time 13:00Hrs.
8. Time and Date of opening Financial Bid	To be notified after bid evaluation is completed
9. Place of opening Bids	Place Office of the Executive Engineer, Central University of Jammu
10. Last Date of bid validity	25 /10/ 2019
11. Officer Inviting Bids	Executive Engineer, CUJ
	Designation: Executive Engineer, Central University of Jammu.
	Address.:- Rahya- Suchani (Village – Bagla), Distt. Samba (J&K)-181143

OFFICE OF THE EXECUTIVE ENGINEER, CENTRAL UNIVERSITY OF JAMMU

NOTICE INVITING TENDER

e- NIT No.:-09/2019-20 Dated:-31.05.2019

Executive Engineer, Central University of Jammu (CUJ) for and on behalf of the Vice Chancellor, Central University of Jammu, invites e-tenders on Percentage(%age) basis from approved and eligible Contractors registered with J&K State Govt. CPWD, Railways, MES, BRO and other State/Central Governments for the following work:-

S.	Name of Work	Name of	Estimated	Earnest	Time	Schedule	Class of
N		Division	Cost of	Money	Allowed	Time and	Contractor
О			Construc-	@ 2%	for	date of	
			tion (Rs.	(Rs in	completion	opening of	
			In Cr.)	lacs)		tender	
1	2	3	4	6	7	8	9
					12		Super Class/
1.	Construction of	Engineering			MONTH	28/06/2019	AAY Class
	SATISH	Wing,	4.36	8.72		(13:00Hrs.)	with HMP
	DHAWAN	Central					
	CENTRE FOR	University					
	SPACE SCIENCE	of Jammu					
	OF ISRO at central	•					
	university of						
	jammu Rahya						
	suchani (bagla)						
	Distt. sanba						

- 1. The Bidding documents can be downloaded from the website https://cujammu.euniwizarde.com from 03/06/2019 (15:00Hrs) to 26/06/2019 (14:00 Hrs)
 - a. The Bids shall be deposited in electronic format on the website https://cujammu.euniwizarde.com from 03/06/2019 (15:00Hrs) to 26/06/2019 (14:00 Hrs upto 14:00Hrs). The bids received will be opened at 13:00Hrs on <a href="https://cujammu.euniwizar
 - b. The complete bidding process will be on line.
 - c. A Pre-bid meeting will be held on <u>18/06/2019 at 15:00 Hrs</u> in the office of the Executive Engineer, Central University of Jammu to clarify the issues and to answer question on any matter that may be raised at that stage as stated in Clause 9 of Instruction to Bidders (ITB) of the Bidding documents
 - d. Technical bids of bidders shall be opened on line in the office of Executive Engineer, Central University of Jammu on or after 28/06/2019 at 13:00Hrs
- 3. Bid document can be seen at and downloaded from the website https://cujammu.euniwizarde.com/ Bid document contain information of qualifying criteria for bidder, specifications, bill of quantities, conditions and other details.
- 4. The site for the work is available

2.

Executive Engineer, Central University of Jammu Rahya- Suchani (Village – Bagla), Distt. Samba (J&K)-181143

OFFICE OF THE EXECUTIVE ENGINEER, CENTRAL UNIVERSITY OF JAMMU

NOTICE INVITING TENDER

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Executive Engineer, Central University of Jammu (CUJ) for and on behalf of the Vice Chancellor, Central University of Jammu, invites e-tenders on Percentage (% age) basis from approved and eligible Contractors registered with J&K State Govt., CPWD, Railways, MES, BRO and other State/Central Governments for the following work:-

S.	Name of Work	Name of	Estimated	Earnest	Time	Scheduled	Class of
No		Division	Cost of	Money	Allowed	Time and	Contractor
			Construct	@2%	for	date of	
			ion (Rs.	(Rs in	complete	opening of	
			In cr.)	lacs)	-on	tender	
1	2	3	4	6	7	8	9
	Construction of				12		Super
1.	SATISH	Engineering	4.36	8.72	MONTH	28/06/2019	Class/
	DHAWAN	Wing,				(13:00Hrs.)	AAY
	CENTRE FOR	Central					Class
	SPACE	University of					with
	SCIENCE OF	Jammu					HMP
	ISRO at central						TIVIT
	university of						
	jammu Rahya						
	suchani (bagla)						
	Distt. sanba						

1. The Bidding document can be downloaded from the website https://cujammu.euniwizarde.com/ from 03/06/2019 (15:00Hrs) to 26/06/2019 (14:00 Hrs)

2.

- (a) The Bids shall be deposited electronic the website in format on https://cujammu.euniwizarde.com/ from _03/06/2019(15:00 Hrs) to 26/06/2019 upto 14:00_Hrs. The bids received will be opened at ___ 13:00Hrs on 28/06/2019 on-line.
- b. The complete bidding process will be online.
- c. A Pre-bid meeting will be held on **18/06/2019** at **15:00 Hrs** in the Office of the Executive Engineer, Central University of Jammu to clarify the issues and to answer questions on any matter that may be raised at that stage as stated in Clause 9 of Instruction to Bidders (ITB) of the Bidding document.
- d. Technical bids of bidders shall be opened on line in the Office of the Executive Engineer, Central University of Jammu on or after <u>28/06/2019</u> at **13:00 Hrs.**
- 3. Bid document can be seen at and downloaded from the website https://cujammu.euniwizarde.com/. Bid document contains information of qualifying criteria for bidder, specifications, bill of quantities, conditions and other details.

- 4. In case it is observed that the bidder has uploaded fake documents, his EMD/CDR will be immediately forfeited and his case will be recommend for debarment in further tendering for one year.
- 5. The site for the work is available.
- 6. Bids must be accompanied by Bid security (EMD) as specified in column 5 & 6 of the above table, both payable at Jammu & Pledged in favour of Finance Officer, CUJ as specified in the Clause 16.2 of ITB. Bid security will have to be in any one of the forms as specified in the bidding document and shall have to be valid upto completion time of the work or more after last date of receipt of Bid.
 - i. The original instruments including a copy of RTGS/NEFT/Challan transfer in respect of EMD and relevant technical Bid documents etc must be delivered in the Office of the Executive Engineer, Central University of Jammu (as per tender conditions) on or before 26.06.2019 upto 16:00 Hrs. by Registered Post/courier only. If the office happens to be closed on the date of receipt as specified, these shall be received on the next working day at the same time and venue.
 - ii. Financial Bids will be opened in the Office of the Executive Engineer, Central University of Jammu. If the office happens to be closed on the date of opening of the bids as specified, these will be opened on the next working day or any subsequent date at the same time and venue.
 - iii. Financial bid will be downloaded and opened only after technical evaluation is complete and financial bids of only those bidders will be opened who are technically substantially responsive.
- 7. The bid for the work shall remain open for acceptance for a period of **120 days** from the date of opening of bids. If any bidder/tenderer withdraws his bid/tender before the said period or makes any modifications in the terms and conditions of the bid, his earnest money shall stand forfeited.
- 8. No Engineer of Gazetted rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the State Government/University is allowed to work as a Contractor for a period of two years after his retirement from Government service, without permission of the Government. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government as aforesaid before submission of the tender or engagement in the Contractor's Service.
- 9. Other details can be seen in the bidding documents.

10. INSTRUCTIONS TO BIDDERS FOR E-TENDER:

Special Instructions for e-Tender. Submission of online Bids is mandatory for this Tender. For conducting electronic tendering, CUJ is using the portal https://cujammu.euniwizarde.com_of M/s ITI Ltd, a Government of India Undertaking.

1.0 Tender Bidding Methodology:

The offer should be submitted through e-tendering mode in the website https://cujammu.euniwizarde.com containing two e-bid viz. Technical and Financial Bid. The Bids will be uploaded along with all signed and scanned documents those are required for particular tender.

.Digital Certificate:

It is mandatory for all the bidders to have class-III Digital Signature Certificate – Signing + Encryption (in the name of person who will sign the Bid) from any of the licensed Certifying Agency (Bidders can see the list of licensed CA's from the link www.cca.gov.in) to participate in e-tendering.

2.0 Registration:

To participate in the e-tendering submission, it is mandatory for applicants to get registered their firm/company in e-tendering portal of ITI. https://cujammu.euniwizarde.com to have user ID & password from M/s ITI Ltd., The Annual registration charges for vendors/suppliers are Rs.2000/+18%GST-per annum (Pay Online). The procedure for the registration is as under:

- 1) Go to the website https://cujammu.euniwizarde.com In the home page, click on "Registration"
- 2) In the Vendor Registration form, vendor has to fill up the all mandatory applicant details. After submission of registration form, you will get the verification link on your registered mail id, after verification you log in your account with your user id and password and complete the all activity related to registration etc. Document uploading, paid registration fee, after completion of registration payment, you need to send your acknowledgement copy on our held desk mail id helpdeskeuniwizarde@gmail.com ewizardhelpdesk@gmail.com for activation of your account.

3.0 SEARCHING FOR ONLINE TENDER DOCUMENTS

There are various search options built in the e-tender Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Item/work id, Title, Date, etc.

Once the bidders had selected the tenders in which they are interested, bidder can pay the processing fee **Rs. 1298.00** (**NOT REFUNDABLE**) by Net-banking / Debit / Credit card then you may download the required documents / tender schedules, Bid documents etc. Once you pay both fees, tenders will be moved to the respective "Register" Tab. This would enable the e-tender Portal to intimate the bidders through e-mail in case there is any corrigendum issued to the tender document.

Please feel free to contact ITI Helpdesk (as given below) for any query related to e-tendering.

- 1. Helpdesk landline No: 011-49606060
- 2. Mr. Varun Tomer +919205898229
- 3. Mr. Birendra Kumar +919205898228

SECTION 2: INSTRUCTIONS TO BIDDERS (ITB)

Table of Clauses

Clause	A. General	Clause	D. Submission of Bids
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13	Bid prices	32	Corrupt or Fraudulent Practices
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16	Earnest Money		
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18	Format and Signing of Bid		
19	Submission of bids		

A. GENERAL

1. SCOPE OF BID

- 1.1 The Executive Engineer as a representative of the Vice Chancellor, Central University of Jammu invites bids for the <u>Construction of SATISH DHAWAN CENTRE FOR SPACE SCIENCE OF ISRO at central university of jammu Rahya suchani (bagla) Distt. samba</u>
- 1.2 The successful Bidder will be expected to complete the work <u>within 12 Month</u> by the intended Completion Date specified in Part-I, General Conditions of Contract and shall rectify all the defects during **defect liability period of five years** as specified in the document.
- 1.3 Throughout these documents, the terms "bid" and "tender" and their derivatives (bidder/tenderer, bid/tender, bidding/tendering etc.) are synonymous.

2. <u>SOURCE OF FUNDS</u>

2.1 The expenditure on the budget will be met from the **ISRO**, Govt. of India under the Sanctioned scheme.

3. <u>ELIGIBLE BIDDERS</u>

- 3.1 This Invitation for Bids is open to all bidders as defined in the Appendix to ITB.
- 3.2 Bidders shall provide a declaration of not having declared ineligible for corrupt and fraudulent practices in the Central Government, the State Government or any public undertaking, autonomous body, authority by whatever name called under the Central or the State Government.

4. QUALIFICATION OF THE BIDDER

- 4.1 All bidders shall provide in Section 3, Forms of Bid and Qualification information, a preliminary description of the proposed work method and schedule including drawings and charts, as necessary.
- 4.2 Section: 3 (Qualification information) unless otherwise stated in the Appendix to ITB.
- (a) Copies of original documents defining the constitution or legal status, Place of registration and principal place of business, written power of attorney in favour of the signatory of the Bid to commit the Bid.
- (b) Total Monetary value of civil construction works performed for each of the last five consecutive years.

- (c) Experience in works of a <u>similar nature</u> for each of the last five years and details of works in progress or contractually committed with certificates from the concerned officer of the rank of Executive Engineer or equivalent in support of 4.4 A of ITB.
- (d) Reports on the financial standing of the Bidder such as profit and loss statements and auditor's reports for the past three years in support of 4.4 B of ITB.
- (e) Authority to seek reference from the Bidder's bankers.
- (f) Information regarding any litigation or arbitration during the last five years in which the bidder is involved, the parties concerned, the disputed amount and matter. The bid of any bidder who is involved in three or more court cases against the department and against other contractors shall not be considered.
- (g) Completion Certificate of having executed and completed or substantially completed successfully single wok of similar nature as defined under section 2 clause 4.4A(a) of ITB in any Govt. or Semi- Govt Department during the last five years duly issued by an officer not below the rank of Executive Engineer or equivalent
- (h) Copy of PAN card issued by the Income TAX Authority
- (i) Undertaking that the bidder will be able to invest a minimum cash up to 25% of contract value of work, during implementation of work.
- (j) Affidavit on Correctness of information submitted with the Bid.
- (k) Power of attorney.
- (l) Bidder shall furnish proof of latest returns in GST-3/GSTR-3B.
- 4. This Invitation for Bids is open to all Bidders (Individual/Joint Venture). Joint venture bidding is allowed for the works costing Rs.15.00 Crores and above in to be read with clause 4.7, of Section 2 ITB.

Pre-qualification Criteria for opening of Technical Bid:

4.4 A Technical Qualification:

To qualify for award of the contract, each bidder should have completed during last five years FY: 2014-15, 2015-16, 2016-17, 2017-18, 2018-19, upto 31/3/2019:

- a. One work of similar nature costing more than or equal to 80% or
- b. Two works of similar nature each costing more than or equal to 50% or
- c. Three works of similar nature each costing more than or equal to 40%.

The work completion certificate shall be issued by an officer of the rank of XEN or equivalent (Project Head) for each work in support of the Technical qualification criteria.

<u>Work of Similar Nature:</u> The bidder should have executed as a prime contractor or as a member of the Joint venture the Civil works involving construction of portable cabins ,multistoried building(s) including allied works viz: electrical, sanitary, plumbing & sewerage works and all other major components/items of works etc. in Govt. departments/institutions/PSUs/Reputed Private Business houses.

As a member of the Joint venture, he should have gained the experience of execution of all major components/items of works under the proposed contract. In case a project has been executed by a joint venture, Weightage towards experience of the project would be given to each joint venture partner in proportion to their participation in the joint venture as per JV agreement.

The contractor should possess required valid electrical license for executing the building electrification works and should have executed similar electrical works for a minimum amount as indicated in appendix in any one year.

The contractor or his identified sub-contractor should possess required valid license for executing the water supply/sanitary engineering works.

4.4 B Financial Turnover:

- I. The bidder should have achieved an Average Annual Financial Turn over in execution of Civil Engineering works in any Govt. /semi Organizations/Autonomous Bodies/Municipal Bodies/ Public Undertaking listed on BSE/NSE, (defined as billing for works in progress or completed in all classes of Civil Engineering construction works only) during any three out of the last five Financial Years ending 31st March 2019 should be atleast 33% of the estimated cost of work duly certified by the Chartered Accountant and should also be duly supported by TDS and Income Tax Returns. The turn over shall be indexed at the rate of 8% per year to bring at current price level.
- II. Having satisfactorily completed or substantially completed, at least one contract of similar nature of work of any Govt./Semi Govt. department during the last five years (Building Work) of at least 33% of the value of proposed contract during the last five years.(Certificate to this effect to be issued by an officer not below the rank of Executive Engineer or equivalent.). No escalation factor is allowed for similar nature of work.

The work may have been executed by the Applicant as prime contractor or as a member of joint venture. In case a project has been executed by a joint venture, weightage towards experience of the project would be given to each joint venture partner in proportion to their participation in the joint venture.

Substantially completed works means those works which are at least 90% completed as on the date of submission of bid (i.e. gross value of work done up to the last date of submission is 90% or more of the original contract price) and continuing satisfactorily.

For this a certificate from employer shall be submitted along with the application incorporating clearly the name of the work, contract value, billing amount, date of commencement of works, actual date of completion of work, satisfactory performance of the contractor and any other relevant information. The certificate should be furnished as per format shown in qualification information section-3 clause no:-1.3 supported with allotment which shall also be uploaded.

NOTE: The requirement in respect of clause 4.4B - (i) (Financial Turn over) shall be 33% of advertised cost of the work for all such works with estimated value less than 40.00 crores, while in case of works valuing 40.00 crores and above the requirement shall be 40% of advertised cost of the particular work. Similarly the requirement in respect of clause 4.4 -B-ii(similar nature of work)it shall be 33% of advertised cost of work for all such works valuing less than 40.00 crores and for the works with estimated value of Rs.40.00 crores and above it shall be 40% of the advertised cost of the particular work

4.4 C Each bidder must produce:

- (a) An affidavit that the information furnished with the Bid document is correct in all respects and
- (b) Such other certificates as defined in the Appendix to ITB. Failure to produce the required certificates shall make the bid non-responsive.
- (c) The Bidder is supposed not to have in his employment:
- (i) The near relations (defined as first blood relations and their spouses, of the bidder or the bidder's spouse) of persons listed in the Appendix to ITB.
- (ii) Without Government permission any person who retired as gazetted officer within the last two years of the rank and from the departments listed in the Appendix to ITB.
- To qualify for a package of contract made up of this and other contracts for which bids are invited in the Notice Inviting Tender, the bidder must demonstrate having experience and resources sufficient to meet the aggregate of the qualifying criteria for the individual contracts.
- 4.5 Sub-Contractor's experience and resources shall not be taken into account in determining the bidder's compliance with the qualifying criteria.
- 4.6 Bidders who meet the minimum qualification criteria will be qualified only if their available bid capacity for construction work is equal to or more than the total bid value. The available bid capacity will be calculated as under:

Assessed Available Bid Capacity = $\{(A \times N \times 2.5) - B\}$

Where,

- A = Maximum value of civil engineering works executed in any year during the last five years (updated to the price level of the last year at the rate of 8 percent a year) taking into account the completed as well as works in progress.
- N = Number of years prescribed for completion of the works for which bids are invited (period up to 6 months to be taken as half-year and more than 6 months as one year).
- B = Value, at the current price level, of existing commitments and on-going works to be completed during the period of completion of the works for which bids are invited.

Base year and Enhancement factors:-

The base year shall be taken as 2018-19. Following enhancement factors will be used only for determination of available bid capacity for the cost of works executed and the financial figures arrived thereof, to a common base value for works completed in India.

Year before	Multiplying factor
One	1.08
Two	1.17
Three	1.26
Four	1.36
Five	1.47

Applicant should indicate actual figures/amount for the works executed by them without accounting for the above mentioned factors. In case the financial figures and value of completed works are in foreign currency, the above enhanced multiplying factors will not be applied. Instead, current market exchange rate (State Bank of India BC selling rate as on the last date of submission of the bid) will be applied for the purpose of conversion of amount from foreign currency into Indian rupees.

4.7 Joint Venture:- (Applicable for the works costing Rs.15.00 Crores and above in J&K State). If the bidder is a Joint Venture, the partners would be limited to three (including lead partner). Joint Venture firm shall be jointly and severally responsible for completion of the project.

Joint Venture must fulfil the following minimum qualification requirement:-

- i)The lead partner shall meet not less than 50% of qualification criteria given in subclause 4.4(B-i)and 4.6(B-ii)of ITB of this bidding document.
- ii) Each of the remaining partners shall meet not less than 25% of all the qualification criteria given in sub-clause 4.4(B-i)and 4.6(B-ii)of I.T.B of this bidding document.
- iii) The Joint Venture must also collectively satisfy the subject of the Criteria of clause 4.4(B-i)and 4.6(B-ii) of ITB for this purpose the relevant figures for each of the partners shall be added together to arrive at the Joint Venture total capacity which shall be 100% or more.

- iv) In the event that the Employer has caused to disqualify under clause 4.6 of ITB all of the Joint Venture partners will be disqualified.
- v) Joint Venture applicants shall provide a certified copy of the Joint Venture agreement in demonstration of the partners undertaking joint and several liabilities for the performance of any contract entered into before award of work.
- vi)The available bid capacity of the J.V as required under clause 4.6 of ITB will be applied for the each partner to the extent of his proposed participation in the execution of the work .The total Bid Capacity available shall be more than estimated contract value.

Provisions Required to be Included in the Joint Venture Agreement

If the application is made by a Joint Venture of two or more firms ,the evidence of clear mandate (i ,e in the form of respective Board Resolution duly authenticated by competent authority) by such two or more firms willing to form Joint Venture among themselves for the specified projects should accompany duly recognizing their respective authorised signatories signing for and on behalf of respective firms for the purpose of forming the Joint Venture .A certified copy of the power of attorney to the authorised representatives, signed by legally authorized signatories of all the firms of the Joint Venture shall accompany the application. The JV Agreement shall need to be submitted consisting but not limited to the following provisions.

- a) Name, Style and Project(s) specified JV with Head Office address
- b) Extent (or Equity) for participation of each party in the JV
- c) Commitment of each party to furnish the Bond money (i, e Bid security, performance security) to the extent of his participation in the JV.
- d) Responsibility of each Partner of JV (in terms of Physical and Financial involvement)
- e) Working Capital arrangement.
- f) Operation of separate Bank Account in the name of JV to be operated by both the partners.
- g) Provision for cure in case non-performance of responsibility by any party of the J.V
- h) Provision that NEITHER party of the JV shall be allowed to sign, pledge, sell or otherwise dispose of all or part of its respective interests in JV to any party including existing partner(s) of the JV .The Employer derives right for any consequent action (including blacklisting)against any or all JV partners in case of any breach in this regard
- i) Management Structure of JV with details.
- j) Lead Partner to be identified who shall be empowered by the JV to incur liabilities on behalf of JV.
- k) Parties/firms committing themselves to the Employer for jointly and severally responsible for the intended works.
- 1) The Power Of Attorney shall be duly notarized.
- m) Any other relevant details.

- 4.8 Even though the bidders meet the above qualifying criteria, they are subject to be disqualified by the tender opening authority if they have:
 - (i) Made misleading or false representations in the forms, statements, affidavits and attachments submitted in proof of the qualification requirements: and/or
 - (ii) Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history or financial failure etc and /or
 - (iii) Participated in the previous bidding for the same work and had quoted unreasonably high or low bid prices and could not furnish rational justification for it to the employer.

5 ONE BID PER BIDDER

5.1 Each Bidder shall submit only one Bid for one work. A Bidder who submits more than one Bid will cause the proposals with the Bidder's participation, to be disqualified.

6. COST OF BIDDING

6.1 The Bidder shall bear all costs associated with the preparation and submission of his Bid and the Employer will, in no case be responsible or liable for those costs.

7. SITE VISIT

7.1 The site is located amidst dense forest/thick vegetation and the terrain is semi-hilly and undulated. The strata is sandy soil mixed with shingle & boulders. It is located near village Suchani about 8km from NH-44 Rahya- Morh

The Bidder, at his own cost, responsibility and risk is encouraged to visit, examine and familiarize himself with the site of works and its surroundings including source of earth, water, road aggregates etc. and obtain all information that may be necessary for preparing the Bid and entering into a contract for construction of the works. The costs of visiting the site shall be at the Bidder's own expense. He may contact the Executive Engineer incharge of work for any guidance relating to site visit.

B. BIDDING DOCUMENTS

8. CONTENT OF BIDDING DOCUMENTS

- 8.1 The set of bidding documents comprises the documents listed below and addenda issued in accordance with Clause 10 of ITB.
 - 1 Notice Inviting Tender
 - 2 Instruction to Bidders
 - 3 Qualification Information & Other forms
 - 4 General Conditions of Contrat

- 5 Contract Data
- 6 Technical Specifications
- 7 Bill of Quantities
- 8 Form of Bid
- 9 Securities and other Forms Form of Acceptance. Form of Agreement. Issued of Notice to Proceed with the work.
- 10 Drawings
- 8.2 The bidder is expected to examine carefully all instructions, conditions of contract, contract data forms, terms and specifications, bill of quantities, forms and drawings in the Bid Document. Failure to comply with the requirements of Bidding Documents shall be at the bidder's own risk. Pursuant to Clause 25 hereof, bids which are not substantially responsive to the requirements of the Bidding Documents, shall be rejected.

9 CLARIFICATION OF BIDDING DOCUMENTS AND PRE-BID MEETING

9.1 A prospective bidder requiring any clarification of the bidding documents may notify the Employer in writing or by emailing at the Employer's email address indicated in the Notice Inviting Tenders. The Employer will respond to any request for clarification received earlier than 10 days prior to the deadline for submission of bids. Copies of the employer's response will be forwarded to all purchasers of the bidding documents, including a description of the inquiry, but without identifying its source.

9.2 PRE-BID MEETING

- 9.2.1 If a pre-bid meeting is to be held, the bidder or his authorized representative is invited to attend it as per date, time and address given in the Appendix to ITB.
- 9.2.2 The purpose of the meeting will be to clarify issues and to answer the questions on any matter that may be raised at that stage.
- 9.2.3 The bidder is requested to submit any questions in writing or by cable so as to reach the Employer not later than one week before the meeting.
- 9.2.4 Minutes of the meeting including the text of the questions raised (without identifying the source of the inquiry) and the response given will be transmitted without delay to all purchasers of the bidding documents. Any modifications of the bidding documents listed in Clause 8.1 of ITB which may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an Addendum pursuant to Clause 10 of ITB and not through the minutes of the pre-bid meeting.

- 9.2.5 Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.
- 9.2.6 The employer will not respond to any queries / request made after pre-bid meeting

10. AMENDMENT OF BIDDING DOCUMENTS

- 10.1 Before the deadline for submission of bids, the Employer may modify the bidding documents by issuing addenda.
- 10.2 Any addendum thus issued shall be part of the bidding documents and shall be uploaded on the official website of the Department.
- 10.3 To give prospective bidders reasonable time to take an addendum into account, in preparing their bids the Employer shall extend, as necessary, the deadline for submission of bids in accordance with Clause 20.2 of ITB.

11. PREPARATION OF BIDS

- 11.1 Language of Bid is in **English**
- 11.2 All documents relating to the Bid shall be in the language specified in the Appendix to ITB.

12 DOCUMENTS COMPRISING THE BID

12.1 The bid submitted by the Bidder in electronic form shall be in two separate parts:

<u>Part I</u>: This shall be named Technical Bid and shall comprise of

Scanned copy of following documents

- i. Copy of EMD in the form of RTGS/NEFT/Challan transfer.
- ii. Copy of Tender Cost in the form of Demand Draft

<u>List of Document to be enclosed with the Bidding Document by the intending Bidders (On the format Prescribed in Section 3 - Qualification Information</u>

Important note:- Any information provided on the format other than those prescribed in the Section-3 shall not be accepted and the bid shall be treated as non-responsive out rightly

Bidders are advised to use "My Documents" area in their user on Central University of Jammu's e-Tendering portal (https://cujammu.euniwizarde.com/) to store their following documents which are used in all Tenders and attach these certificates as Non-Statutory documents while submitting their bids:

1. Copy of Registration Card duly renewed for the Current Financial year.

- 2. Turn over Certificate and total monetary value of civil construction works performed for each of last three years & five years respectively duly certified by the regd. Charted Accountant on his letter Pad and by the concerned Executive Engineer or Equivalent/Project Head resp..
- 3. Successful completion certificate of a work ______ (specify the work) _____ of amount executed during the last five years <u>duly issued by an officer not below the rank of Executive Engineer or equivalent</u>
- 4. Details of work in progress or contractually committed with certificates from the concerned Executive Engineer
- 5. Earnest Money
- 6. Copy of Pan Card
- 7. Affidavit for correct information
- Note:-Original instrument in respect of EMD copy and relevant Technical Bid document must be delivered in the Office of the Executive Engineer, Central University of Jammu, (as per tender conditions) on or before 24/06/2019 upto 16:00_Hrs. otherwise, the tender will be rejected.

<u>Part II</u>: It shall be named Financial Bid and will be in electronic format comprising of :

- i. Bill of quantities / Form of Bid
- 12.2 Each part shall be separately submitted online.
- 12.3 The following documents which are not submitted with the bid will be deemed to be part of the bid.

SECTION	PARTICULARS
1	Notice inviting Tender
2	Instruction to the bidder
3	Conditions of Contract
4	Contract Data
5	Specifications
6	Drawings

13. BID PRICES

- 13.1 The Contract shall be for the whole works as described in Clause 1.2 of ITB based on the priced Bid of Quantities submitted by the Bidder.
- 13.2 The Bidder shall adopt the Percentage Rate as specified in the Form of Bid

- Corrections, if any, shall be made by crossing out, initialing, dating and rewriting.
- 13.3 All duties, taxes, royalties and other levies including GST & 1% Labour Cess payable by the contractor under the contract or for any other cause, shall be included in the rates, prices and total Bid price submitted by the Bidder.
- 13.4 The rates and prices quoted by the Bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.

14 CURRENCIES OF BID AND PAYMENT.

14.1 The unit rates and the prices shall be quoted by the bidder entirely in Indian Rupees. All payments shall be made in India Rupees

15 <u>BID VALIDITY</u>

- 15.1 Bids shall remain valid for a period of one hundred twenty days (120) days after the deadline date for bid submission specified in Clause 20 of ITB. A bid valid for a shorter period <u>shall be rejected by the Employer as non-responsive</u>
- 15.2 In exceptional circumstances, prior to expiry of the original time limit, the employer may request the bidder to extend the period of validity for a specified additional period. The request and the bidder's responses shall be made in writing. A bidder may refuse the request without forfeiting his earnest money. A bidder agreeing to the request will not be required or permitted to modify his bid, but will be required to extend the validity of his earnest money for a period of the extension, and in compliance with Clause 16 of ITB in all respects.

16 <u>EARNEST MONEY</u>

- 16.1 The bidder shall furnish, as part of the Bid, Earnest Money of **Rs.7.92 lacs./-** in electronic, as well as, Hard Copy.
- 16.2 The Bid Security of the Successful bidder will be discharged/ released when the bidder has signed the Agreement and furnished the required Performance Security.
- 16.3 Any bid not accompanied by an earnest money shall be rejected by the employer as non responsive.
- 16.4 The earnest money of unsuccessful bidders will be returned within the Bid validity period.
- 16.5 The earnest money will be forfeited:
 - a) If the bidder withdraws the Bid after technical bid opening on cut-off date during the period of Bid validity;
 - b) In the case of a successful Bidder, if the Bidder fails within the specified time limit to:
 - i) Sign the Agreement; and/or

ii) Furnish the required performance security

17. ALTERNATIVE PROPOSALS BY BIDDERS

17.1 Bidders shall submit offers that comply with the requirements of the bidding documents including the Bill of quantities and the basic technical design as indicated in the drawings and specifications. Alternative proposals will be rejected as non-responsive.

18. <u>FORMAT AND SIGNING OF BID</u>

- 18.1 The Bidder shall submit one set of the Technical Bid comprising of the documents as described in Clause 12 of ITB.
- 18.2 The bid shall be submitted /Signed by a person or persons duly authorized to sign on behalf of the Bidder, pursuant to Clause 4.2 (a) of ITB. All pages of the Bid shall be signed by the person or persons signing the Bid.
- 18.3 The Bid shall contain no additions/alterations, except those to comply with instructions issued by the Employer, or as necessary to correct errors made by the Bidder. In that case, such corrections shall be made by scoring out the cancelled portion, writing the correction and initialing and dating it by the person or persons signing the Bid.

D. SUBMISSION OF BIDS

19. SUBMISSION OF BIDS

19.1 The Bidder shall submit separately "Technical Bid" and "Financial Bid".

Technical Bid: to be opened on <u>28.06.2019</u> in the presence of Technical Bid Opening Committee.

Financial Bid: Shall be opened of technically qualified bidders only.

The contents of the Technical and Financial Bids shall be as specified in Clause 12.1 of ITB.

- **19.2** This shall be named as Technical Bid and shall comprise of <u>Scanned copy of following documents:</u>
 - i. Copy of EMD in the form of RTGS/NEFT/Challan transfer.

<u>List of Document to be enclosed with the Bidding Document by the intending Bidders (On the format Prescribed in Section 3 - Qualification Information)</u>

Important Note: Any information provided on the format other than those prescribed in Section-3 shall not be accepted and the bid shall be treated non-responsive out rightly (Bidders are advised to use "My Documents" area in their

user on Central University of Jammu e-Tendering portal (https://cujammu.euniwizarde.com/) to store their following documents which are used in all Tenders and attach these certificates as Non Statutory documents while submitting their bids)

- 1. Copy of Registration Card duly renewed for the Current Financial year
- 2. Turn over Certificate and total monetary value of civil construction works performed for each of last five years
- 3. Successful completion certificate of a work _____ (specify the work)____ of size executed during the last five year
- 4. Details of work in progress or contractually committed with certificates from the concerned Executive Engineer
- 5. Earnest Money
- 6. Copy of Pan Card
- 7. Affidavit for correct information

Note:- Original instrument in respect of EMD copy and relevant Technical Bid document must be delivered to the Executive Engineer, CUI on or before 26.06.2019 upto16:00 Hrs.

- **Part II** It shall be named Financial Bid and will be in electronic format comprising of:
 - i. Bill of quantities / Form of Bid

20 DEADLINE FOR SUBMISSION OF BIDS

- 20.1 Complete Bids (including Technical and Financial) must be submitted online not later than the <u>26.06.2019</u> upto 13:00 hrs.
- 20.2 The employer may extend the deadline for submission of bids by issuing an amendment in accordance with Clause 10.3 of ITB, in which case all rights and obligations of the Employer and the bidders previously subject to the original deadline will then be subject to the new deadline.

21 <u>LATE BIDS</u>

21.1 Any Bid received by the Employer after the deadline prescribed in Clause 20 of ITB will be returned unopened to the Bidder.

E. BID OPENING AND EVALUATION

22. BID OPENING

- 22.1 The Employer will open the bids received (except those received late) in the presence of the bidders/bidder's representative who choose to attend at the time, date and place specified in the appendix to ITB. In the event of the specified date for the submission of bid being declared a holiday for the Employer, the Bids will be opened at the appointed time and location on the next working day or any subsequent date.
- 22.2 The envelope containing the technical bid shall be opened first and if the cost of the bidding documents is not there, or incomplete, the remaining Bid document will not be opened, and bid will be rejected
- 22.3 The Employer will prepare minutes of the Bid opening, including the information disclosed to those present.
- 22.4 Evaluation of the technical bids with respect to bid security, qualification information and other information furnished in Part- I of the bid in pursuant to Clause 12.1 of ITB, shall be taken up and completed within reasonable time of the date of bid opening, and a list will be drawn up of the responsive bids whose financial bids are eligible for consideration.
- 22.5 The bidder may be generally informed by self generated messages of the online system regarding opening of bids. No separate communication regarding opening and evaluation of bid will be sent to bidders by the Department
- 22.6 The Employer shall prepare the minutes of the opening of the Financial Bids.

23. PROCESS TO BE CONFIDENTIAL

23.1 Information relating to the examination, clarification, evaluation, and comparison of bids and recommendations for the award of a contract shall not be disclosed to bidders or any other persons not officially concerned with such process until the award to the successful Bidder has been announced. Any attempt by a Bidder to influence the Employer's processing of bids or award decisions may result in the rejection of his Bid

24. CLARIFICATION OF BIDS AND CONTACTING THE EMPLOYER

- 24.1 No Bidder shall contact the Employer or any matter relating to its bid from the time of the bid opening to the time the contract is awarded.
- 24.2 Any attempt by the bidder to influence the Employer's bid evaluation, bid comparison or contract award decision may result in the rejection of his bid.

25. EXAMINATION OF BIDS AND DETERMINATION OF RESPONSIVENESS.

- During the detailed evaluation of "Technical Bids", the Employer will determine whether each Bid (a) meeting the eligibility criteria defined in Clause 3 and 4 of ITB: has been properly signed; (b) is accompanied by the required securities; and (c) is substantially responsive to the requirements of the bidding documents. During the detailed evaluation of the "Financial Bids", the responsiveness of the bids will be further determined with respect to the remaining bid conditions i.e. priced bill of quantities, technical specifications and drawings as applicable.
- 25.2 A subsequently responsive "Financial Bid" is one which conforms to all the terms, conditions and specifications of the bidding documents, without material deviation or reservation. A material deviation or reservation is one (a) which affects in any substantial way, inconsistent with the bidding documents, the employer's rights or the Bidder's obligations under the Contract; or (b) whose rectification would affect unfairly the competitive position of other bidders presenting substantially responsive bids.
- 25.3 If a "Financial Bid" is not substantially responsive, it will be rejected by the employer, and may not subsequently be made responsive by corrections or withdrawal of the nonconforming deviation or reservation.

26. EVALUATION AND COMPARISON OF FINANCIAL BIDS

- 26.1 The Employer will evaluate and compare only the bids determined to be substantially responsive in accordance with Clause 25 of ITB.
- 26.2 If the Bid of the successful Bidder is seriously unbalanced i.e less by 15% or more of the advertised amount the of work to be performed under the contract, the employer may require the Bidder to produce detailed price analysis for any or all Items of the Bill of quantities to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analysis, the Employer may require that the amount of the performance security set forth in Clause 31 of ITB be increased at the expense of the successful Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the contract. In such case, the bidder i.e L-1 bidder shall furnish an additional Performance Security in shape of BG @ 5% of the advertised amount from any nationalized Bank after opening of financial bid.

26.3 The additional Security shall be released only after successful completion of work. No partial release of security shall be allowed. In case the bidder does not furnish additional BG within 10 days, his earnest money shall be forfeited.

27. PRICE PREFERENCE

27.1 There will be no price preference to any bidder

F. AWARD OF CONTRACT

28. <u>AWARD CRITERIA</u>

- 28.1 Subject to Clause 30 of ITB, the Employer will award the contract to the Bidder whose Bid has been determined:
 - i) To be substantially responsive to the bidding documents and who has offered the lowest evaluated Bid price, provide that such Bidder has been determined to be (a) eligible in accordance with the provisions of Clause 3 of ITB, and (b) qualified in accordance with the provisions of Clause 4 of ITB; and
 - ii) To be within the available bid capacity adjusted to account for his bid price which is evaluated the lowest in any of the package opened earlier than the one under consideration.

29. <u>EMPLOYER'S RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS</u>

29.1 Notwithstanding Clause 28 above, the Employer reserves the right to accept or reject any Bid, and to cancel the bidding process and reject all bids, at any time prior to the award of contract, without thereby incurring any liability to the affected Bidder or bidders or any obligation to inform the affected bidder or bidders of the grounds for the Employer's action

30. NOTIFICATION OF AWARD AND SIGNING OF AGREEMENT

30.1 The Bidder whose Bid has been accepted will be notified of the award by the employer prior to expiry of the bid validity period by Email and confirmed by registered letter. This letter (hereinafter and in the part I "General conditions of contract", called the "Letter of Acceptance") will state the sum that the employer will pay to the contractor in consideration of the execution, completion by the contractor as prescribed by the contract (hereinafter and in the Contract called the "Contract Sum").

- 30.2 The notification of award will constitute the formation of the contract subject only to the furnishing of a performance security in accordance with the provision of Clause 31.
- 30.3 The agreement will incorporate all agreements between the Employer and the successful Bidder after the performance security is furnished.
- 30.4 Upon the furnishing by the successful Bidder of the performance security, the employer will promptly notify the other bidders that their bids have been unsuccessful.

31. PERFORMANCE SECURITY

- 31.1 Within **10 (ten) days** after receipt of the letter of Acceptance, the successful Bidder shall deliver to employer a Performance Security @ 5% of total amount quited by Bidder having validity upto the defect liability period of five years from the time of completion of works. EMD will be released after submission of performance security.
- 31.2 In case L-1 bidder fails to deposit the performance security within 10 days from the date of intimation, offer will be given to 2nd lowest bidder on the rates of 1st lowest bidder if acceptable to him (2nd lowest bidder). In case the 2nd lowest bidder declines the offer, the department will be at liberty to invite the fresh tenders.
- 31.3 The performance security shall be in the form of Fixed Deposit Receipts/Term Deposit Receipt/Bank guarantee (FDR/TDR/BG) from a scheduled commercial bank, in the name of the Finance Officer, CUJ.
- 31.4 Failure of the successful Bidder to comply with the requirements of Clause 31.1 shall constitute sufficient grounds for cancellation of the award and forfeiture of the Earnest Money. He will also be debarred from participating in bids under requisite heads for one year.

32. CORRUPT OR FRAUDULENT PRACTICES

The employer requires the bidders/contractors to strictly observe the laws against fraud and corrupt practices enforce in India, namely, prevention of corruption Act, 1988.

- 33. Advance Payment: No Advance Payment whatsoever shall be made by the department to the Contractor.
- 34. Secured Advance Payment : No Secured Advance Payment whatsoever shall be made by the department to the Contractor against the material brought to site.

APPENDIX TO ITB

The Employer should fill out this Appendix to ITB before issuing the bidding documents. The insertions should correspond to the information provided in the Invitation for Bids.

Instructions to Bidders

CLAUSE REFERENCE

- (1.1) The Employer Is The Vice Chancellor, Central University of Jammu
- (1.2) The Works is : Construction of SATISH DHAWAN CENTRE FOR

SPACE SCIENCE OF ISRO at Central university of

jammu Rahya suchani (Bagla) Distt. Samba.

- (2.1) The State is : <u>Jammu & Kashmir</u>
- (3.1) Eligible Bidders are: As per tender condition in the NIT.
- (4.1-a) The key equipment for Building works are:

LIST OF minimum PLANT & EQUIPMENT TO BE DEPLOYED ON CONTRACT WORK (Depending upon Nature of Work & specifications thereof)

A. F	or Buildings :			
S.	Type of Equipment	5 Crores above	15 crores above	Rs.30.00 Crore
No		Up to 15 crores	Up to Rs.30.00	Above
1	Excavator	1	Crore. 2	2
2	Tipper/Trucks	2	3	5
3	Mixers	2	3	4
4	Vibrators	2	4	6
5	Hoist	1	1	2
6	Batch Mix Plants (For Works having Design Mix	-	1	1
	Concrete) Capacity as per quantum of Concrete			
	Involved			
7	Transit Millers		3	6
8	Concrete Pump	1	1	
9	Scaffolding and Ledger Pipes	2000sqm	5000Sqm	5000 sqm or
				more depending
				on quantum of

		work requiring	g
		scaffolding and	d
		ledger pipes.	

Any other equipment required for execution.

Note: Quality Control Laboratory equipped with all required equipment's (Based on Nature of Work) is compulsory for all types of Works/Contracts to be executed.

(4.1-b) LIST OF KEY PERSONNEL TO BE DEPLOYED ON CONTRACT WORK

S.NO	PERSONAL	QUALIFICATION	Up to 15 crores	15 crores above Up to Rs.30.00 Crore.	Rs.30.00 Crore above
1	Project Engineer	B .E Civil +10Years Exp Or Diploma in Civil with 15 years experience	1	2	3
2	Site Engineer	B.E Civil +3Years Exp Or Diploma with 7 years Experience	-	-	1
3	Plant Engineer	B.E Mech. + 3 Years Exp. Or Dip. Mech.+ 7 Years Exp.	-	1	1
4	Quantity Surveyor	B.E Civil. + 7 Years Exp. Or Dip. Civil.+ 10Years Exp.	-	1	1

- (4.1-c) Liquid assets and/ or availability of credit facilities of no less than amount indicated in Appendix to ITB (credit lines /letter of credit certificates from banks for meeting the funds requirement etc. usually the equivalent of the estimated cash flow for three months in peak construction period)
- (4.1-d) To qualify for a package of contracts made up of this and other contracts for which bids are invited in the ITB, the bidders must demonstrate having experience and resources sufficient to meet the aggregate of the qualifying criteria for the individual contracts.
- (5.1). The contact person is: <u>Er. Vishal Bargotra</u>
 Designation: <u>Executive Engineer</u>

Address: Rahya- Suchani (Village – Bagla), Distt. Samba (J&K)-181143

Telephone No. 7889841455

(6.1). Place, Time and Date for pre-bid meeting are:

Office of the Executive Engineer, Central University of Jammu, Rahya-Suchani

(Village – Bagla), Distt. Samba (J&K)-181143

Time: <u>15:00Hrs</u>
Date: <u>18/06/2019</u>

(7.1). The other documents required are: As detailed in the relevant sections of this document.

(8.1). The date, time and place for opening of the technical Bids are:

(A) Technical Bids

Date: <u>28/06/2019</u> Time: <u>13:00 Hrs</u>

Place: Office of the Executive Engineer, Central University of Jammu,

Rahya- Suchani (Village - Bagla), Distt. Samba (J&K)-181143

(B) Financial Bid (For qualified bidder as)

Date: Qualified Bidder will be informed after bid evaluation is completed

Place: Committee Room, Central University of Jammu, Rahya- Suchani

(Village - Bagla), Distt. Samba (J&K)-181143

(9.1). The amount and validity period of the performance guarantee is:

Amount: 5% of total amount gouted by Bidder

Validity period:

- (i) Performance security shall be valid upto a date **45 days** after the expiry of Defect Liability Period of **FIVE years** after intended completion date.
- (ii) Additional Performance security @ 5% shall be valid upto the expiry of intended completion date.

For and on behalf of Vice Chancellor, Central University of

Jammu

Executive Engineer Central University of Jammu

SECTION 3: QUALIFICATION INFORMATION

NOTES ON FORM OF QUALIFICATION INFORMATION

The information to be filled in by bidders in the following pages will be used for purpose of post-qualification as provided for in Clause-4 of the Instructions to Bidders. This information will not be incorporated in the Contract. Attach additional pages as necessary.

1. <u>INDIVIDUAL BIDDERS</u>

1.1	Constitution	on of legal sta	atus of Bid	der	[attach copy]			
	Place of re	gistration:						
	Principal p	place of busin	ess:					
	Power of a	attorney of sig	gnatory of	Bid				
					[attach]			
1.2		nnual volu		Civil			(Rs	. In lakhs)
	Engineerir	O			2014-2015			
	executed	1 2			2015-2016			
		ely in the		,	2016-2017			
		the year in						
	invited.	`	certified					
		Accountant)		-				
		S, ITR, Pro		Loss				
		and Balance s						
1.3	-	formed as pri		,			•	
		ı similar natu	re and vol	lume ove	er the last	five years. <i>I</i>	Attach certif	icate from
	the Engine	eer-in-charge						
Project Name	Name of Employer	Description Of work	Value of Contract (Rs in lakhs)	Contract No.	Date of Issue of Work Order	Stipulated Date of Completion	Actual Date of Completion (*)	Remarks Explaining reason for delay of any

- (*) Attach certificate(s) from Engineer-In-Charge.
 - 1.3.1 Information on Bid Capacity (works for which bids have been submitted and works which are yet to be completed) as on the date of this bid.

a. EXISTING COMMITMENTS AND ON-GOING CONSTRUCTION WORKS:-

Descriptio	Place	Contract	Name &	Value of	Stipulated	Value of	Anticipated
n of Work	&	No. &	Address	Contract	Period of	works	Date of
	Sate	Date	of	(Rs. In	Completion	Remainin	completion
			Employer	Lakhs)		g to be	
						complete	
						d	
						(Rs. In	
						Lakhs)	
						*	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

^{*} Enclose certificate(s) from Engineer(s)-in-charge for value of work remaining to be completed.

b. WORKS FOR WHICH BIDS ALREADY SUBMITTED:

Description	Place	Name &	Estimated	Stipulated	Date when	Remarks if
of Work	&	Address of	value of	period of	decision is	any
	State	Employer	Works	Completion	Expected	
			(Rs. In	_	_	
			Lakhs)			
(1)	(2)	(3)	(4)	(5)	(6)	(7)

1.4 Qualification of technical personnel proposed for the Contract: Refer Clause 8.1 of GCC

Position	Name	Qualification	Years of experience		
			Road	Building	Other
			Works	Works	

-	.5 Financial reports for the last three years (2015-16, 2016-17, 2017-18): balan	
	profit and loss statements. Auditor's reports etc. List below and attach cop	oies.
	.6 Information on current litigation in which the Bidder in involved.	

Name of Other Party(ies)	Employer	Cause of dispute	Amount involved	Place of Litigation (Court/arbitration	Remarks showing present status

1.7. Other Documents

CHECK LIST

(TO BE FILLED COMPLETELY & PLACED IN ENVELOPE)

Sr. No.	Points to be verified	Yes/ No
1.	Duly filled and signed the FORMS OF QUALIFICATION(1.1 to 1.6)	
2.	Copy of Registration Card duly renewed for the Current Financial year	
3.	Turn over Certificate and total monetary value of civil construction works performed for each of last five years	
4.	(m) Successful completion certificate of a work (specify the work) of size executed during the last five year <u>duly issued by an officer not below the rank of Executive Engineer or equivalent</u>	
5.	Details of work in progress or contractually committed with certificates from the concerned Executive Engineer	
6.	Earnest Money	
7.	Copy of Pan Card	
8.	Affidavit for correct information	

Place:	Signature of Authorized Person
Date:	Designation
	Seal

SECTION: 4

GENERAL CONDITIONS OF CONTRACT

These conditions are subject to the variations and additions set out in part II special conditions of contract

NOTES ON CONDITION OF CONTRACT

The Conditions of Contract, read in conjunction with Part II Special Conditions of Contract and the Contract Date and other documents listed therein, should be a complete document expressing fairly the rights and obligations of both parties.

The form of "Conditions of Contract", that follows has been developed for Smaller and major contracts for construction on the basis of international practice and the practice of the Government of India, and considerable experience in different States in India in the drafting and management of contracts bearing in mind a trend in the construction industry towards simpler, more straightforward language.

The conditions of contract also incorporate the concept of performance-based payments for routine maintenance of roads.

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- 54 Facilities
- 55 Drawings and Photographs of the Works
- 56 The Apprenticeship Act 1961.
- 57 Other conditions

GENERAL CONDITIONS OF CONTRACT

A. GENERAL

1. DEFINITIONS

- 1.1 Terms which are defined "in the contract data", and also not defined in the conditions of contract but keep their defined meanings. Capital initials are used to identify defined terms.
- 1.2 **Bill of Quantities** means the priced and completed Bill of Quantities forming part of the Bid.

Compensation Events are those defined in Clause 37 hereunder

The completion Date is the date of completion of the works as certified by the Engineer-in-Charge, in accordance with Clause 48.1

The Contract is the Contract between the Employer and the Contractor to execute, complete and maintain the works. It consist of the documents listed in Clause 2.3

The contract data defines the documents and other information, which comprise the contract.

The contractor is a person or corporate body whose Bid to carry out the works, including routine maintenance has been accepted by the Employer

The contractor's Bid is the completed bidding document submitted by the contractor to the Employer

The contract price is the price stated in the letter of acceptance and thereafter as adjusted in accordance with the provisions of the contract.

Days are calendar days; months are calendar months

A Defect is any part of the works not completed in accordance with the contract.

The Defect Liability Certificate is the certificate issued by Engineer after the Defect liability period has ended and upon correction of defects by the contractor.

The Defect Liability Period is 60 months calculated from the actual completion date

Drawings include "Technical details" approved by the Engineer for the execution of the contract.

The employer is the party as defined in the contract Data who employs the contractor to carry out the works, including routine maintenance. The Employer may delegate any or all functions to a person or body nominated by him for specified functions.

The Engineer is the person named in the Contract Data (or any other competent person appointed by the Employer and notified to the Contractor to act in replacement of the Engineer) who is responsible for supervising the execution of the Works and administering the Contract of the rank of Junior Engineer/Assistant Executive Engineer/Executive Engineer.

Engineer-In-Charge is the Engineer in-charge of work and shall be of the rank of Executive Engineer.

The Initial Contract Price is the contract price listed in the Employer's Letter of Acceptance

The intended completion date is the date on which it is intended that the contractor shall complete the works. The intended completion date is specified in the contract data. The intended completion date may be revised only by the Engineer-in -Charge by issuing an extension of time.

Materials are all supplies, including consumables, used by the contractor for incorporation in the works.

Plant is any integral part of the works that shall have a mechanical, electrical, electronic, chemical or biological function.

MAINTENANCE DURING DEFECT LIABILITY PERIOD

Rectification of defects during defect liability period shall be carried out by the contractor on his own expenses to the entire satisfaction of the Engineer- in- charge.

The **site** is the area defined as such in the contract data.

Site Investigation Reports are those that were included in the bidding documents and are reports about the surface and sub-surface condition at the site

Specification means the specification of the works included in the contract and any modification or addition made or approved by the Engineer-in-Charge.

The **Start Date** is given by the Contract Data. It is the date when the contractor shall commence execution of the works. It does not necessarily coincide with any of the Site Possession dates.

A Sub-Contractor is a person or corporate body who has a Contract with the Contractor to carry out a part of the construction work in the Contract, which includes work on the site.

Temporary Works are works designed, constructed installed and removed by the Contractor that are needed for construction or installation of the Works.

A Variation is an instruction given by the Engineer-in-Charge, which varies the Works.

The **Works**, as defined in the Contract Data are what the Contract requires the Contractor to construct, install, maintain and turn over to the Employer. Routine maintenance is defined separately.

Urgent Works are the works which in the opinion of the Engineer-in-Charge become necessary during the progress of work to obviate any risk of an accident or failure or which become necessary for security of works and of persons working thereon.

Market Rate is the rates as decided by the Engineer-in-Charge on the basis of the cost of materials and labour prevailing at site where the work is to be executed plus a %age of 15 (fifteen) to cover all over heads and profits + GST and Cess.

Accepting Authority means the Vice Chancellor, Central University of Jammu

2. INTERPRETATION

- 2.1 In interpreting these Conditions of contract, singular also means plural and vice versa. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Engineer will provide instructions clarifying queries about these Conditions of Contract.
- 2.2 If sectional completion is specified in the contract data references in the conditions of contract to the Works, the completion date and the intended completion date apply to any Section of the works (other than references to the Completion Date and intended completion date for the whole of the works)
- 2.3 The documents forming the Contract shall be interpreted in the following order of priority:
 - (i) Agreement
 - (ii) Notice to proceed with the works
 - (iii) Letter of Acceptance
 - (iv) Contractor's Bid.
 - (v) Contract Data.
 - (vi) Special Condition of Contract Part II
 - (vii) General Condition of Contract Part I
 - (viii) Specifications.
 - (ix) Drawings.
 - (x) Bill of Quantities
 - (xi) Any other document listed in the Contract Data.

3. LANGUAGE AND LAW

3.1 The language of contract and the law governing the Contract are stated in Contract Data.

4. ENGINEER-IN-CHARGE'S DECISIONS

- 4.1 Except where otherwise specifically stated, the Engineer-in-charge will decide contractual matters between the employer and the contractor in the role representing the employer. However, if the Engineer-in-Charge is required under the rules and regulations and orders of the employer to obtain approval of some other authorities for specific actions, he will do so before such action.
- 4.2 Except as expressly stated in the contract, the Engineer-In-Charge shall not have any authority to relieve the contractor of any of his obligations under the contract unless and until approved by the Accepting Authority/Employer.

5 DELEGATION

5.1 The Engineer-in-charge with the approval of the Accepting Authority may delegate any of his duties and responsibilities to other people after notifying the contractor and may cancel any delegation after notifying the contractor.

6. COMMUNICATION

6.1 Communication between parties that are referred to in the conditions shall be effective only when in writing. A notice shall be effective only when it is delivered.

7. OTHER CONTRACTORS

7.1 The contractor shall cooperate and share the site with other contractors, public authorities utilities and the employer between the dates given in the schedule of other contractors as

referred to in the contract Data. The Contractor shall also provide facilities and services for them as described in the schedule. The Employer may modify the schedule of other contractors and shall notify the contractor of any such modification.

7.2 The contractor should take up the works in convenient reaches as decided by the Engineer-in-Charge to ensure there is least hindrance to the smooth flow of traffic including movement of vehicles and equipment of other contractors till the completion of the works.

8. PERSONNEL

- 8.1 The contractor shall employ for the construction work, the technical personnel named in the contract data or other technical persons with the approval of the Engineer-in-Charge. The Engineer-in-Charge will approve any proposed replacement of technical personnel only if their relevant qualifications and abilities are substantially equal to or better than those of the personnel stated in the contract data.
- 8.2 If the Engineer-in-Charge asks the contractor to remove a person who is a member of the contractor's staff or work force stating the reasons, the contractor shall ensure that the person leaves the site within seven days and has no further connection with the works in the contract.

9. EMPLOYER'S AND CONTRACTOR'S RISKS

9.1 The Employer carries the risks, which this Contract states are "Employer's risks" and the contractor carries the risks, which this Contract states are "Contractor's Risks".

10. EMPLOYER'S RISKS

10.1 The Employer is responsible for the excepted risks, which are (a) in so far as they directly affect the execution of the works in the Employer's country the risks of war, invasion, act of foreign enemies, rebellion, revolution, insurrection or military or usurped power civil war riot commotion or disorder (unless restricted to the Contractor's employees) natural calamities and contamination from any nuclear fuel or nuclear waste or radioactive toxic explosive or (b) a cause due solely to the design of the Works other than the Contractor's design.

11. CONTRACTOR'S RISKS

11.1 All risks of loss of or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the contract other than the excepted risks referred to in Clause 10.1, are the responsibility of the contractor.

12. INSURANCE

- 12.1 The contractor at his cost shall provide in the joint names of the employer Authority and the Contractor, insurance cover from the Start Date to the end of the Defects Liablility Period in the amounts and deductibles stated in the Contract Data for the following events which are due to the Contractor's risks.
 - a) Loss of or damage to the works, plant and materials
 - b) Loss of damage to Equipment;
 - c) Loss of or damage to property (Except the works, plant, materials and Equipment) in connection with the contract; and
 - d) Personal injury or death

- 12.2 Insurance policies and certificates for insurance shall be delivered by the contractor to the Engineer-in-Charge for approval before the Start Date. All such insurance shall provide for compensation to be payable in India Rupees to rectify the loss or damage incurred.
- 12.3 (a) The Contractor at his cost shall also provide in the joint names of the Employer and the Contractor insurance cover from the date of completion to the end of defect liability period in the amounts and deductibles stated in the Contract Data for the following events which are due to the Contractor's risks: (a) Personal injury or death.
- 12.4 Alterations to the terms of insurance shall not be made without the approval of the Engineer-in-Charge.
- 12.5 Both parties shall comply with any conditions of the insurance policies.

13. <u>SITE INVESTIGATION REPORT</u>

- 13.1 Site investigation report provided with the Bid document is only indicative and the Contractor in preparing the Bid may rely on any Site investigation reports referred to in the contract data supplemented by any other information available to him before submitting the bid.
- 14. List of Approved Materials: -

11. Ziot of rippio cu rituteriazo.						
List of	Approved Materials					
Sr.No	Description of Items	Туре	Make as per the tender			
		Туре	riake as per the tender			
CIVIL						
1	CEMENT	OPC GRADEE43/53	ULTRATECH, ACC, AMBUJA			
2	ACC BLOCKS	Aerated Aerocon Blocks	Siporex, Laxmi or equivalant			
3	ACP cladding		Euro bond/ Alucobond			
4	Water proofing chemicals		Roff, Sunanda, Dr Fixit			
5	Plywood/Block Board particle board	Marine grade	Marino/ Greenply/ Centuryply			
6	Laminate	1mm thk	Marinolam/ Greenlam Airolam			
7	Melamine Polish	_	Asian, Woodpol/Nerolac / Berger / Sheenlac			
,	Trefarinite Folion		Sun A Grade / Prince/			
8	French Polish	-	Sheenlac			
9	Hardwares		EBCO / Hettich / Haffle/Kich /Neki			
10		0.0.204	EBCO/ Dorma/ Hettich/ Neki			
10	Handles	S.S 304 grade	/Kich			
1112	Flush Doors		Marino /Kitply/Archidply			
12	Door Closer/ locks	-	Ebco/ Dorma/Hettich			
13	Screws		Nettlefold, (brass oxide)			
14	Glass	Clear/Frosted/Etched	Modi guard, Saint Gobain			
15	Adhasiyas		Fevical SH , Araldite, Vomicol, Aldrex			
15	Adhesives		Wood guard/Termiseal/			
16	Wood Preservative	-	Woodpeckor/ Bison by british paint / Wood care			
			ICI (Dulux - Duco), Asian			
17	Paint		paints, Jotun paints, Berger			

18	Glass wool		Fibre glass / twiga
19	Aluminum section		jindal, Indal, Boruka
20	Wood work	Frames	Second class teak wood
21	Engineered Wooden Flooring		Ego, Square foot
22	Wood wool panelling		Anutone, fibrecrete
23	SS Trollies	304 grade	Ebco, Sleek, Hettich
23	Roller blinds		Mac , Hunter Douglas
25	Fibre Cement Board		Everest or Equivalent
26	Sanitary ware	Chinaware	Hindware, Perryware, Cera
27	Bathroom fittings	Brass Fittings	Jaquar, Perryware, Hindware
28	Switch Gear		ABB, Schnider,
29	AC		Daikin, Career, Voltas
30	LED Light fittings		Phillips or equivalant
31	Cable Joint		Reychem, Mahindra 32
32	Fire Alarm Panel		Seimens, Notier
33	ELECTRICAL WIRES		R R Kable, Finolex
	Cable tray		Slotco, Pilco

15. QUERRIES ABOUT THE CONTRACT DATA

15.1 The Engineer will clarify queries on the contract data.

16. CONTRACTOR TO CONSTRUCT THE WORKS

16.1 The Contractor shall construct and install and maintain the Works in accordance with the Specifications and Drawings

17. THE WORKS TO BE COMPLETED BY THE INTENDED COMPLETION DATE.

17.1 The Contractor may commence execution of the works on the start date and shall carry out the works in accordance with the programme submitted by the Contractor as updated with the approval of the Engineer-in-charge and complete them by the Intended Completion Date.

18. APPROVAL BY THE ENGINEER-IN-CHARGE.

- 18.1 The Contractor shall submit specifications and drawings showing the proposed Temporary works to the Engineer-in-Charge who is to approve them.
- 18.2 The contractor shall be responsible for design of Temporary works.
- 18.3 The Engineer-in-Charge's approval shall not alter the Contractor's responsibility for design of the Temporary works.
- 18.4 The Contractor shall obtain approval of third parties to the design of the Temporary works where required.
- 18.5 All Drawings prepared by the contractor for the execution of the temporary permanent works are subject to prior approval by the Engineer –in-charge before execution of such works.

18 SAFETY

18.1 The Contractor shall be responsible for the safety of all activities on the site.

19 <u>DISCOVERIES</u>

19.1 Anything of historical or other interest or of significant value unexpectedly discovered on the site shall be the property of the Employer. The contractor shall notify the Engineer-in-Charge of such discoveries and carry out the Engineer's instructions for dealing with them.

20 POSSESSION OF THE SITE

20.1 The Engineer-in-Charge shall give complete possession of the site to the contractor fifteen days in advance of the construction programme.

21 ACCESS TO THE SITE

- 21.1 The contractor shall allow access to the site and to any place where work in connection with the contract is being carried out, or is intended to be carried out to the Engineer-in-Charge and any person/persons/agency authorized by:
 - a. The Engineer-in-Charge.
 - b. The Employer.

22. INSTRUCTIONS

22.1 The Contractor shall carry out all instructions of the Engineer-in-Charge to comply with the applicable laws where the Site is located.

23 A. DISPUTE REDRESSAL SYSTEM

23.1 If any dispute or difference of any kind what-so-ever shall arise in connection with or arising out of this contract or the execution of works or maintenance of the works there under whether before its commencement or during the progress of Works or after the termination/abandonment or breach of the contract, it shall in the first instance be referred for settlement to the competent authority i.e. Vice Chancellor, Central University of Jammu.

The competent authority shall, within a period of forty-five days after being requested in writing by the Contractor to do so, convey his decision to the contractor in respect of every matter so referred. In case the work is already in progress, the Contractor shall proceed with the execution of the work, including maintenance thereof, pending receipt of the decision of the competent authority as aforesaid, with all due diligence. The decision of the competence authority shall be final & binding on both the parties.

B. PROCEDURE FOR RESOLUTION OF DISPUTES.

- 23.2 The Competent Authority mentioned in Clause 23.1 shall give a decision in writing within 45 days of receipt of a notification of dispute by adopting any procedure/process as deem fit by such authority. However, the competent authority can extend the said time limit of 45 days as deem fit in deciding the referred dispute with due intimation to both the parties.
- 23.3 In case, either of the parties is not satisfied by the decision of the competent authority, then in such case the aggrieved party can refer the matter within 25 days of the receipt of the decision,

again to the same competent authority i.e Vice Chancellor, Central University of Jammu for review of his decision. The competent authority shall have to convey his decision in writing within 45 days of receipt of a notification of review of his decision by adopting any procedure/process as deem fit by such authority. However, the competent authority can extend the said time limit of 45 days as deem fit in deciding the referred dispute with due intimation to both the parties.

23.4 Performance under the contract shall continue even after reference to the dispute resolution authority and payments due to the contractor by the employer shall not be withheld unless they are the subject matter of the referred disputes.

24 <u>ARBITRATION:</u>

There shall be no arbitration clause for this contract. None of the parties either employer or the contractor are allowed to go for arbitration.

B.TIME CONTROL

25 **PROGRAMME**

- 25.1 Within 15 days of the date of issue of allotment of the contract, the contractor shall submit to the Engineer-in-Charge for his approval, the programme showing the general methods, arrangements, order and timing for all the activities in the works, along with monthly cash flow forecasts for the construction of works.
- 25.2 An update of the programme shall be a programme showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining works, including any changes to the sequence of the activities.
- 25.3 The Contractor shall submit to the Engineer-in-Charge for approval an updated Programme at intervals no longer than **15 days**. If the contractor does not submit an updated Programme within this period, the Engineer-in-charge may withhold 2% of the bill from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue programme has been submitted.
- 25.4 The Engineer-in-Charge's approval of the programme shall not alter the contractor's obligations. The contractor may revise the programme and submit it to the Engineer-in-Charge again at any time and the revised programme shall show the effect of variations and compensation events.
- 25.5 Labour for Traffic control/watch and ward as per necessity at site shall be supplied by the firm and nothing extra shall be paid in this behalf by the department.

26. EXTENSION OF THE INTENDED COMPLETION DATE

- 26.1 The Engineer-in-charge shall extend the intended completion date if a compensation event occurs or a variation is issued which makes it impossible for completion to be achieved by the intended completion date without the contractor taking steps to accelerate the remaining works which would cause the contractor to incur additional cost.
- 26.2. The Engineer-in-Charge shall decide whether and by how much time to extend the intended completion date within 30 days of the Contractor asking the Engineer-in-Charge for a decision

upon the effects of a Compensation Events of variation and submitting full supporting information. If the Contractor has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new intended completion date.

27. <u>DELAYS ORDERED BY THE ENGINEER-IN-CHARGE</u>

27.1 The Engineer-in-Charge may instruct the Contractor to delay or start or progress of any activity within the works. Delay/delays totaling more than 30 days will require prior written approval of the Competent Authority.

28. MANAGEMENT MEETINGS

- 28.1 The Engineer-in-Charge may require the contractor to attend a management meeting. The business of a management meeting shall be to review the progress of the works.
- 28.2 The Engineer-in-Charge shall record the business of management meetings and provide copies of the record to those attending the meeting. The responsibility of the parties for action to be taken shall be decided by the Engineer-in-Charge either at the management meeting or after the management meeting and stated in writing to all those who attended the meeting.

C.QUALITY CONTROL

29. IDENTIFYING DEFECTS

- 29.1 The Engineer-in-Charge shall check the Contractor's work and notify the contractor of any defects that are found. Such checking shall not absolve the contractor from his responsibilities with regard to quality of work.
- 29.2 No payment shall be made without the required test from the authorised lab(s).

30. TESTS

- 30.1 The Contractor shall be solely responsible for:
 - a) Carrying out the mandatory tests prescribed in the IRC / MOST / BIS/ Latest National Building Code of India, as applicable.
 - b) The correctness of the test results whether preformed in his laboratory or elsewhere.
- 30.2 If the Engineer-in-Charge instructs the contractor to carry out a test not specified in the specification to check whether any work has a defect and the test Confirms the defect, then the contractor shall have to pay for the tests and the defective work shall have to be dismantled and reconstructed in accordance to the IRC / MOST /BIS/ CPWD/NBO Specifications as applicable.
- 30.3 The contractor shall immediately establish the laboratory at the site to conduct all the relevant quality tests.
- 31. <u>CORRECTION OF DEFECTS NOTICED DURING THE DEFECT LIABILITY PERIOD OF 60 MONTHS</u>

- 31.1 The Engineer-in-Charge shall give notice to the Contractor of any Defects before the end of Defect Liability period which shall begin on completion of work and ends after five years. The defects liability period shall be extended for as long as defects remain to be corrected.
- 31.2. Every time notice of defect/defects is given to the contractor, he shall correct the notified defect/defects within the length of time specified in the Engineer-in-Charge's notice.

32 <u>UNCORRECTED DEFECTS</u>

32.1 If the Contractor has not corrected a defect pertaining to the defect liability period to the satisfaction of the Engineer-in-Charge within the time specified in the Engineer-in-Charge's notice, the Engineer will assess the cost of having the defect corrected and the contractor will pay this amount on correction of the defect or the same can be recovered from any amount due to him.

D. COST CONTROL

33 BILL OF QUANTITIES

- 33.1 The bill of quantities shall contain items for the construction, installation, testing and commissioning and maintenance during defect liability period of five Years separately to be done by the Contractor
- The Bill of quantities is used to calculate the contract price and the Contractor is paid for the quantity of work done at the rates allotted to him after satisfactory completion of works.

34 VARIATIONS

Any variation necessitated during the execution of work due to certain technical cogent reasons be resorted to only after formal approval from the Vice Chancellor, Central University of Jammu for carrying out such deviation is conveyed. The Vice Chancellor, Central University of Jammu shall then authorize Executive Engineer issue a variation order. Oral orders of the Engineer-in-Charge for Variations unless followed by written confirmation shall not be taken into account. Such variations shall form part of the Contract and the contractor shall carry them out and include them in updated programme produced by the contractor.

35 PAYMENT FOR VARIATIONS

- All Extra items if these are within the BOQ or outside the BOQ shall be measured and paid as per Delhi Schedule of Rates -2016 including contractor's percentage.
- 35.2 The extra Items which do not exist in the Delhi Schedule of Rates -2016 but are found necessary to be executed at site, shall be measured and paid as per analyzed rate taking into account the actual cost plus applicable taxes and 15% Contractor's overheads and profit.
- As far as possible, the rate analysis shall be based on the standard data book and the current Delhi Schedule of Rates -2016/lowest market rates of the district of site of work i.e Samba (J&K). The decision of the Executive Engineer, CUJ on the rate so determined shall be final and binding on the Contractor.

36 <u>PAYMENTS</u>

- Payment shall be adjusted for deductions for security deposit other recoveries in terms of the contract and taxes at source as applicable under the law.
- 36.2 The Employer may appoint Finance Officer, CUJ as specified in the Contract data (or any other competent person appointed by the Employer and notified to the contractor) to make payment certified by the Executive Engineer.
- 36.3 Items of the works for which no rate or price has been entered in the bill of quantities will not be paid for by the Engineer-in-Charge and shall be deemed covered by other rates and prices in the contract.
- 36.4 The payment of items of work when a contractor / firm has quoted rate higher than advertised rate shall be paid as per advertised rates only till such time the contractor / firm complete and the finish the items of work for which he has quoted less rate than the advertised rates.

37 <u>COMPENSATION EVENTS</u>

- 37.1 The following shall be compensation events unless they are caused by the contractor
 - a) The Engineer orders a delay or delays exceeding a total of 30 days.
- 37.2 If a compensation event would prevent the works being completed before the intended completion date the intended completion date shall be extended. The Engineer shall decide whether and by how much the intended completion date shall be extended, however no claim on account of extended period of time shall be entertained.

38 TAXES

The rates quoted by the Contractor shall be inclusive of the sales / Turnover Taxes and other levies, duties, royalties, cess, toll, taxes of central and state Govt. local bodies and authorities including GST & 1% Labour Cess that the contractor will have to pay for the performance of this contract. The employer will perform such duties in regard to the deduction of such taxes at source as per applicable law.

39 CURRENCIES

39.1 All payments will be made in Indian Rupees.

40 SECURITY DEPOSIT

- The Employer shall retain security deposit @ Five percent (5%) of the amount from each payment due to the contractor until Defect Liability period of the works.
- 40.2 The security deposit and EMD will be released to the contractor as under:
 - a) EMD/additional EMD as the case may be shall be released after the successful completion of work to the satisfaction of the Engineer-In-Charge and
 - b) 5% of Security Deposit of the contractor shall be released after Defect Liability period of five years, is over.

41 LIQUIDATED DAMAGES

- 41.1 The Time is an essence of the contract. If the contractor is not able to achieve the desired progress as stipulated in the prescribed mile stone in the contract data to general condition of the contract at S.No.25, the Engineer-in-charge shall have the authority to impose the Liquidated Damages. However, in case the Contractor achieves the next mile stone, the amount of the Liquidated Damages already withheld shall be restored to the Contractor by adjustment in the payment certificate.
- 41.2 In the event of failure on part of the Contractor to achieve timely completion of the project including any extension of time granted under Clause 26 of GCC, he shall, without prejudice to any other right or remedy available under the law to the Employer on account of such breach, pay as agreed Liquidated Damages to the Employer and not by way of penalty, as a sum calculated at the rate per week or part thereof as stated in the Contract Data. For the period that the completion date is later than the intended completion date, Liquidated Damages at the same rate shall be levied if the Contractor fails to achieve the Mile Stones prescribed in the Contract Data. Both the parties expressly agree that the total amount of Liquidated Damages shall not exceed 10% of initial contract price and that the Liquidated Damages payable by the Contractor are mutually agreed genuine pre-estimated loss and without any proof of actual damage likely to be suffered and incurred by the Employer & the Employer is entitled to receive the same and are not by way of penalty. The Employer may, without prejudice to any other method of recovery, deduct the amount of such damages from any sum due, or to become due to the Contractor or from performance security or any other dues from Government or Semi-Government body within the State. The payment or deduction of such damages shall not relieve the Contractor from his obligations to complete the works, or from any other of his duties, obligations or responsibilities under the contract. The Contractor shall use and continue to use his best endeavours to avoid or reduce further delay to the works, or any other relevant stages.
- It is agreed by the contractor that the decision of the Employer as to the Liquidated Damages payable by the Contractor under this clause shall be final and binding,

42 SECURITIES

42.1 The performance security equal to 5% of the contract and additional EMD for unbalanced bids shall be provided to the Employer not later than the date specified in the letter of acceptance and shall be issued in the form given in the contract data and by a schedule commercial bank.

43 COST OF REPAIRS

43.1 Loss or damage to the works or materials to be incorporated in the works between the start date and the end of the defects correction periods shall be remedied by the contractor at his cost if the loss or damage arises from the contractor's acts or omissions.

E. FINISHING THE CONTRACT

44 COMPLETION

44.1 The contractor shall request the Engineer-in-Charge to issue a **certificate of completion of the works** and the Engineer will do so upon deciding that the works is completed.

45 TAKING OVER

45.1 The employer shall take over the site and the works within 15 days of the Engineer-in-Charge's issuing a certificate of completion. The contractor shall continue to remain responsible for its routine maintenance during the maintenance period of 60 months for main work.

46 FINAL ACCOUNT

46.1 The contractor shall supply the Engineer-in-Charge with a detailed account of the total amount that the Contractor considers payable under the contract before the end of the defects liability period. The Engineer shall issue a defects liability certificate and certify any final payment that is due to the contractor within 56 days of receiving the contractor's account if it is correct and completed. If it is not, the Engineer shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. If the final account is still unsatisfactory after it has been resubmitted the Engineer-in-Charge shall decide on the amount payable to the contractor and issue a payment certificate within 30 days of receiving the contractor's revised account. The payment will be made 15 days thereafter.

47. Operating and Maintenance Manuals

- 47.1 If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated by Engineer-in-Charge
- 47.2 If the Contractor does not supply the Drawings and/or manuals by the dates stated in the Contract Data, or they do not receive the Engineer's approval, the Engineer's approval, the Engineer shall withhold the amount stated in the Contract Data from payment due to the Contractor.

48 TERMINATION

- 48.1 The employer may terminate the contract if the contractor cause a fundamental breach of the contract.
- 48.2 Fundamental breaches of contract shall include but shall not be limited to the following:
 - a) The contractor stops work for 28 days when no stoppage of work is shown on the current programme and the stoppage has not been authorized by the Engineer-in-Charge.
 - b) The contractor is declared as bankrupt or goes into liquidation other than for approval, reconstruction or amalgamation.

- c) The Engineer-in-Charge gives Notice that failure to correct a particular defect is a fundamental breach of contract and the contract and the contractor fails to correct it within a reasonable period of time determined by the Engineer-in-Charge.
- d) The contractor does not maintain a security which is required
- e) The contractor has delayed the completion of the works by the number of days for which the maximum amount of liquidated damages can be paid as defined in Clause 41.
- f) The contractor fails to provide insurance cover as required.
- g) If the contractor in the judgment of the Employer has engaged in the corrupt or fraudulent practice in competing for or in executing the contract. For the purpose of this Clause "corrupt practice means the offering, giving, receiving or soliciting or anything of value to influence the action of a public official in the procurement process or in contract execution. "Fraudulent practice":- means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Employer and includes collusive practice among "Bidders" (prior to or after bid submission) designed to establish bid process at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition.
- h) If the contractor has not completed at least thirty percent of the value of construction work required to be completed after half of the completion period has elapsed;
- i) Any other fundamental breaches as specified in the Contract data.
- 48.3 Notwithstanding the above, the Employer may terminate the Contract for convenience.
- 48.4 If the contract is terminated, the contractor shall stop work immediately, make the Site safe and secure, and leave the site as soon as reasonably possible.

49 PAYMENT UPON TERMINATION

- 49.1 If the contract is terminated because of a fundamental breach of contract by the contractor, the Engineer-in-Charge shall issue a certificate for the value of the work done less Liquidated damages, advance payments received up to the date of the issue of the certificate, less other recoveries due in terms of the contract, less taxes due to be deducted at source as per applicable law and less the percentage to apply to the work not completed as indicated in the Contract Data. If the amount due to the Employer exceeds any payment due to the Contractor the difference shall be recovered from the security deposit and performance security. If any amount is still left un-recovered it will be a debt payable to the Employer. If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a certificate the difference shall be a debt payable to the Employer.
- 49.2 If the Contract is terminated at the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Engineer shall issue a certificate for the value of the work done, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works less other recoveries due in terms of the contract and less taxes due to be deducted at sources as per applicable law.

50 PROPERTY

50.1 All material on the Site, Plant, Equipment, Temporary Works and Works shall be deemed to be the property of the Employer for use for completing balance construction work if the contract is terminated because of the contractor's default.

51 RELEASE FROM PERFORMANCE

- 51.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Employer or the Contractor the Engineer shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which commitment was made.
- 51.2 Death or permanent invalidity of the contractor: the contractor shall indicate nominee for the contract at the time of signing of the agreement. If the contractor dies during currency of the contractor or becomes permanently incapacitated, and his/her nominee are not willing to complete the contract, the contract shall be closed without levying any damages/compensation. However, if the nominee expresses his/her intention to complete, the balance work and the competent authority is satisfied about the competence of nominee, then the competent authority shall enter into a fresh agreement for the remaining work strictly on the same terms & conditions under which the contract was initially awarded.

F. ADDITIONAL CONDITIONS OF CONTRACT

52 LABOUR

The contractor shall, unless otherwise provided in the contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport.

The Contractor shall, if required by the Engineer, deliver to the Engineer a return in detail, in such form and at such intervals as the Engineer may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the site and such there information as the Engineer may require.

53 COMPLIANCE WITH LABOUR REGULATIONS

During continuance of the contract, the contractor and his sub-contractors shall abide at all times by all existing labour enactments and rules made there under, regulation, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or Central Government or the local authority. Salient features of some of the major labour laws that are applicable to construction industry are given below. The Contractor shall keep the employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the

notifications/byelaws/Acts/Rules/regulations including amendments, if any, on the part of the contractor, the engineer/employer shall have the right to deduct any money due to the contractor including his amount of performance security. The employer/engineer shall also have right to recover from the contractor any sum required or estimated to be required for making good the loss or damage suffered by the employer. The employer of the contractor and the Sub-Contractor in no case shall be treated as the employees of the employer at any point of time.

SALIENT FEATURES OF SOME MAJOR LABOUR LAWS APPLICABLE TOESTABLISHMENTS ENGAGED IN BUILDING AND OTHER CONSTRUCTIONWORK.

- a) **Workmen Compensation Act 1923:** The Act provides for compensation in case of injury by accident arising out of and during the course of employment.
- b) **Payment of Gratuity Act 1972:** Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years' service or more or on death the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees.
- c) **Employees P.F. and Miscellaneous Provision Act 1952:** The Act Provides for monthly contributions by the
 - employer plus workers @ 10% or 8.33%. The benefits payable under the Act are: (i) Pension or family pension on retirement or death, as the case may be.(ii) Deposit linked insurance on the death in harness of the worker. (iii) Payment of P.F. accumulation on retirement/death etc.
- d) **Maternity Benefit Act 1951:** The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.
- e) Contract Labour (Regulation & Abolition) Act 1970: The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the contractor fails to provide, the same are required to be provided, by the principal employer by law. The principal employer is required to take certificate of registration and the contractor is required to take license from the designated officer. The Act is applicable to the establishments or contractor of principal employer if they employ 20 or more contract labour.
- f) Minimum Wages Act 1948: The employer is supposed to pay not less than the minimum wages fixed by appropriate government as per provisions of the Act if the employment is a scheduled employment. Construction of buildings, roads, and runways are scheduled employments.
- g) **Payment of Wages Act 1936:** It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.
- h) **Equal Remuneration Act 1979:** The Act provides for payment of equal wages for work of equal nature to Male and Female workers and for not making discrimination against Female employees in the matters of transfers, training and promotions etc.
- i) Payment of Bonus Act 1965: The Act is applicable to all establishments employing 20 or more employees. The Act provides for payments of annual bonus subject to minimum of 8.33% of wages and maximum of 20% of wages to employees drawing Rs.3500/- per month or less. The bonus to be paid to employees getting Rs. 2500/-per month or above upto 3500/- per month shall be worked out by taking wages as Rs.2500/- per month only. The Act does not apply to

certain establishments. The newly set up establishments are exempted for five years in certain circumstances. Some of the State Governments have reduced the employment size from 20 to 10 for the purpose of applicability of this Act.

- j) Industrial Disputes Act 1947: The Act lays down the machinery and procedure for resolution of Industrial disputes, in what situations a strike or lock-out become illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.
- **k)** Industrial Employment (Standing Orders) Act 1946: It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the State and Central Government to 50). The Act provides for laying down rules governing conditions of employment by the employer on matters provided in the Act and get the same certified by the designated Authority.
- I) Trade Unions Act 1926: The Act lays down the procedure for registration of trade unions of workmen and employers. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities.
- m) Child Labour (Prohibition & Regulation) Act 1986: The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of Child Labour is prohibited in Building and Construction Industry.
- n) Inter-State Migrant workmen's (Regulation of Employment & Conditions of

Service) Act 1979: The Act is applicable to an establishment, which employs 5 or more interstate migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, travelling expenses from home up to the establishment and back, etc.

- o) The Building and Other Construction workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996: All the establishments who carry on any building or other construction work and employs 10 or more workers are covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be modified by the Government. The employer of the establishment is required to provide safety measures at the Building or construction work and other welfare measures, such as Canteens, First-Aid facilities, Ambulance, Housing accommodation for workers near the work place etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.
- p) Factories Act 1948: The Act lays down the procedure for approval of plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing the prescribed minimum (say 10) persons or more with aid of power or another prescribed minimum (say 20) or more persons without the aid of power engaged in manufacturing process.

54. Facilities -: Latest model (not more than 2 year old model) Four vehicle AC scorpio DX vehicle or equivalent along with driver required for the movement of Engineering staff at site for the supervision of civil works and other allied Activities. The vehicle shall be made available to CUJ Engineering staff for 12 hours a day, 28 days a month and 3500km per month. The vehicle shall be provided only for the period of Execution of the work related to ISRO Space Centre.

The Contractor shall make his rates in their offer sufficiently comprehensive to cover the cost of the facilities as per details shown below and the contractor shall not be entitled for any extra payment for the same.

55. DRAWINGS AND PHOTOGRAPHS OF THE WORKS

The contractor shall do photograph /video photograph of the site firstly before the start of the work, secondly mid-way in the execution of different stages of work and lastly after the completion of the work. No separate payment will be made to the contractor for this and shall submit a Hard copy and soft copy of the same to the Engineer-in-charge for record and reference.

The contractor shall not disclose details of drawings furnished to him and works on which he is engaged without the prior approval of the Engineer-in-Charge in writing. No photograph of the works or any part thereof or plant employed therein, except those permitted under Clause 58.1 shall be taken or permitted by the contractor to be taken by any of his employees or any employees of his sub-contractors without the prior approval of the Engineer-in-Charge in writing. No Photographs /Video photography shall be published or otherwise circulated without the approval of the Engineer-in-Charge in writing.

56. THE APPRENTICES ACT 1961

The Contractor shall duly comply with the provision of the apprentices Act 1961 (III of 1961) the rules made there under and the orders that may be issued from time to time under the said Act and the said Rules and on his failure or neglect to do so he shall be subject to all liabilities and penalties provided by the said act and said Rules.

Death or permanent invalidity of the contractor: the contractor shall indicate nominee for the contract at the time of signing of the agreement. If the contractor dies during currency of the contractor or becomes permanently incapacitated, and his/her nominee are not willing to complete the contract, the contract shall be closed without levying any damages/compensation. However, if the nominee expresses his/her intention to complete, the balance work and the competent authority is satisfied about the competence of nominee, then the competent authority shall enter into a fresh agreement for the remaining work strictly on the same terms & conditions under which the contract was initially awarded.

57. OTHER CONDITIONS

A. The Employer / Engineer-in-Charge shall also have right to recover from the contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer

CONTRACT DATA TO GENERAL CONDITIONS OF CONTRACT

1. The Employer is The Vice Chancellor, Central University of Jammu (CI.I.I)

Designation: Hon'ble Vice Chancellor, Central University of Jammu

Address: Central University of Jammu

Rahya- Suchani (Village - Bagla), Distt. Samba (J&K)-181143

2. Name of authorized Representative

The Engineer is: <u>Er. Vishal Bargotra</u>

Designation: <u>Executive Engineer</u>

Address: Rahya- Suchani (Village – Bagla), Distt. Samba (J&K)-

181143

Telephone No. 7889841455

3. The Intended Completion Date for the whole of the works is **12 months** after the start of work

- Rectification of defects during defect liability period shall be carried out by the contractor at his own expenses to the entire satisfaction of the engineer in charge.
- 5. The site is located at <u>Central University of Jammu</u> Rahya- Suchani (Village Bagla), Distt. Samba (J&K))
- 6. The Start Date shall be **ten days** after the date of issue of the Notice to proceed with the work.

7

- (A) The name and identification number of the Contract is: NIT 09/2019-20 Construction of SATISH DHAWAN CENTRE FOR SPACE SCIENCE OF ISRO at Central university of jammu Rahya suchani (Bagla) Distt. Samba.
- (B) The works consist of Civil works involving construction of multistory building including allied works i.e : Electrical, sanitary, plumbing, sewerage works and all other major components / item of works etc.

This work shall inter-alia include the following as specified or as directed:-

(a) BUILDING WORK

Site clearance, provision for columns foundation footings of reinforcement cement concrete, Superstructure, Roof beams, roof slab, roof coverings and railing etc. all aspects of quality assurance clearing the site and handing over the works on

completion. Rectification of the Defects during the Defects Liability period and submission of "As-Built" drawings and other related documents and other items of works in accordance with the Drawings and the provision of the contract and to ensure safety.

(b) MAINTENANCE AND OTHER ITEMS

The tenderer is required to fulfill all the contract obligations as per the Bid document. The rectification of defects during defect liability period shall be the entire responsibility of the firm and nothing extra shall be paid on this account.

- (C) Sectional completion is: (CI. 2.2 of General Condition of contract)
- (D) The following documents also form part of the Contract: (Cl. 2.3)
- (i) Agreement
- (ii) Notice to proceed with the works
- (iii) Letter of Acceptance
- (iv) Contractor's Bid.
- (v) Contract Data.
- (vi) Special Condition of Contract Part II
- (vii) General Condition of Contract Part I
- (viii) Specifications.
- (ix) Drawings.
- (x) Bill of Quantities
- (xi) Any other document listed in the Contract Data.
 - (E) (a) The law which applies to the Contract is the law of J&K Govt: (Cl. 3.1)
- (b) The language of the Contract documents is **English**:

(Cl. 3.1)

- (F) The schedule of Other Contractors is attached.: (Cl. 7)
- (G) (a) Amount deductible for insurance: (Cl. 12)

As per prevalent norms/rules

- (H) Site investigation report:-----
- (I) (a) Competent authority is: Vice Chancellor, Central University of Jammu
 - (J) (a) The period for submission of the programme for approval of

Engineer-in-Charge shall be 15 days from the issue of letter of Acceptance.

- (b) The updated Programme shall be submitted at interval of 45 days
- (c) The amount to be withheld for late submission of an updated programme shall be 2% of cost
 - (K) The Variation shall be paid as per Clause 34 & 35 of GCC.
 - (L) The authorized person to make payments is Finance Officer, CUJ
 - (M) (a) Milestones to be achieved during the contract period
- (i) 25 % of the entire contract work upto 1/4th of the period allowed for completion of construction.
- (ii) 50% of the entire contract work upto 1/2 of the period allowed for completion of construction.
- (iii) 75% of the entire contract work upto 3/4th of the period allowed for completion of construction.
- (iv) 100% of the entire contract work upto the expiry of completion period allowed for completion of construction
- (b) Maximum limit of liquidate damages for delay in completion of works

10 percent of the Initial Contract Price, rounded off to the nearest thousand

(N) The Standard form of Performance Security acceptable

to the Employer Shall be an <u>FD/TDR/BG</u> of the type as presented in the Bidder Documents.

- (O) (a) The events mentioned in CI. 47 of GCC Part-I shall be fundamental breach of contract. Also if the Contractor has contravened Clause 7 & 8 of Part I of General Condition of Contractor.
- (P) The Central University of Jammu shall not supply any construction material what so ever.

AFFIDAVIT

1.	I, the undersigned, do hereby certify that all the statements made in the required statements are true & correct.
2.	The undersigned also hereby certifies that neither our firms M/S have abandoned any work in PWD or in any other Department nor any contract awarded to us for such works have been rescinded, during last five years prior to the date of this bid.
3.	The undersigned, understand and agrees that further qualifying information may be requested and agrees to furnish any such information at the request of the department/project implementing authority . (Signed by an Authorized Officer of firm)
	(Title of Officer) ———————————————————————————————————
	(DATE)

SECTION 5

<u>LETTER OF ACCEPTANCE AND OTHER FORMS</u> STANDARD FORMS

(a) LETTER OF ACCEPTANCE

Accepted your Bid dated____

NOTES O	N STANDARD FORMS OF LETTER OF ACCEPTANCE
	The letter of Acceptance will be the Basis for formation of the Contract
	as described in Clause 31 and 32 of the instructions to Bidders. This
	standard Form of Letter of Acceptance should be filled in and sent to
/Letterhea	ad paper of the Employer)
(Date)	
To:	
(Name of t	he Contractor)
(Address o	of the Contractor)
This is to r	notify you that the Employer namelyhas

rectification of defects of the works for five years for the Contract Price of Rupees.

Instruction to Bidders is hereby accepted by our Agency.

____(amount in figures and modified* in accordance with the

for execution of the

_____ (name of the contract) and

You are hereby requested to sign the contract failing which action as stated in Clause 31 of ITB will be taken.

Yours faithfully,
Authorized Signature:
Name and Title of Signatory:
Name of Bidder:
Attachment:

^{*} Delete "corrected and" or "and modified" if only one of these action applies. Delete "as corrected and modified in accordance with the Instruction to Bidders" if corrections or modifications have not been effected.

STANDARD FORM OF AGREEMENT

Notes on Standard Form of Agreement

Notes on standard form of agreement. (The Agreement should incorporate any corrections or modifications to Bid resulting from corrections of errors (Instructions to bidders, Clause 26))

STANDARD FORM: AGREEMENT

AGREEMENT

Гhis agreement, made the	_ day of	20	
petween	[name and address of Employer]		
(hereinafter called "the Employer") of the one part, and	t		
	ntractor] (herei	inafter called "the Contr	actor" of
Whereas the Employer is desirous that the Contractor e	execute		
	[na	ame and identification n	umber of
Contract](hereinafter called "the Works") and the Emp the execution and completion of such Works and the re Rupees		-	

NOW THIS AGREEMENT WITHNESSETH as follows:

- 1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of contract hereinafter referred to and they shall be deemed to form and be read and construed as part of this Agreement.
- 2. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the works and remedy and defects therein in conformity in all aspects the provisions of the Contract.
- 3. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the works and the remedying the defects wherein the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

	ollowing documents shall be deemed to form and be read and construct as of this Agreement, Viz:-
i) ii) iii) iv) v) vi) vii) viii) ix)	Letter of Acceptance; Notice to Proceed with works; Contractor's Bid; Contract Data; Special Conditions of Contract and General Conditions of Contract; Specifications Drawings; Bill of Quantities; and Any other documents listed in the Contract Data as forming part of the contract.
the da	tness whereof the parties thereto have caused this Agreement to be executed ay and year first before written. Common Seal of
	nereunto affixed in the presence of: ed, Sealed and Delivered by the Said
	e presence of: ing Signature of Employer
Bindi	ing Signature of Contractor

IMPORTANT INSTRUCTIONS FOR BIDDERS

- 1. Bidders are advised to scan their documents on 100 dpi with Black & White option
- 2. Bidders are advised to download Bid Submission manual for the help of Bid Submission process from the "Downloads" option as well as from "Bidders Manual Kit" on home page of https://cujammu.euniwizarde.com/
- 3. Bidders are advised not to make any change in **BOQ** (Bill of Quantity) contents or its name. In no case they should attempt to create similar BOQ manually. The BOQ downloads from the site should be used for filling the rates and it should be saved with same name.
- 4. Bidders are required to quote net rate inclusive of all including GST, 1% Labour Cess etc. in BOQ (xls) format
- 5. Bidders are advised to use "My Documents" area in their user on the Central University of Jammu e-Tendering portal (https://cujammu.euniwizarde.com/) to store their documents which are used in all Tenders like GST certificate etc and attach these certificates as Non Statutory documents while submitting their bids
- 6. During scrutiny of the Technical Bids system generated e-Mails confirming acceptance of bid are to be ignored.
- 7. The Bid i.e Technical Bid as well as Financial Bid is to be submitted online on web portal https://cujammu.euniwizarde.com/. However, the firms will submit the supporting documents as required to be submitted along with Technical Bid in off-line mode in physical form in the office of the Executive Engineer, Central University of Jammu In case supporting documents are to be submitted offline in physical form, then it should be so specified in their Technical Bids & the supporting documents must be deposited in the office of Executive Engineer, Central University of Jammu before date & time of opening of tenders.

PRICE BID

Name of work : Construction of **SATISH DHAWAN CENTRE FOR SPACE SCIENCE OF ISRO** at Central university of jammu Rahya suchani (Bagla) Distt. Samba.

Description of work	Qty. as per Drawing and rate as per BOQ based on DSR 2016	Percentage rates Quoted applicable on all ite of BOQ uniformly.(rates quoted shall be inclusive of all texes, duties and GST etc.)	
		In figures	In words
Construction of SATISH DHAWAN CENTRE FOR SPACE SCIENCE OF ISRO at Central university of jammu Rahya suchani (Bagla) Distt. Samba.	As per BOQ		

Summary

Dated: 20.04.2019

PROPOSED SATISH DHAWAN CENTRE OF SPACE SCIENCES FOR ISRO AT CENTRAL UNIVERSITY OF JAMMU, Project:

SAMBA

Subject: BILL OF QUANTITY FOR STRUCTURAL, CIVIL, SITE DEVELOPMENT & ALLIED WORKS

Development area:

1. Plot area

2. Ground, 1st and second floor built up area 1350 sqm

It. No.	DESCRIPTION OF ITEMS	AMOUNT
	PART 1 (Civil)	
1.00	CIVIL WORKS	3,24,49,33
2.00	PLUMBING & SANITATION	15,26,44
3.00	GARDENING & HORTICULTURE	3,63,63
	PART 2 (MEP)	
2.00	HVAC	43,81,60
4.00	ELECTRICAL	26,94,48
5.00	FIRE ALARM & PROTACTION SYSTEM	14,09,52
	Solar Power System	7,50,00
•	TOTAL	4,35,75,019

ELECTRICAL WORKS

	1	ELECTRICAL WORKS			1	
S.No.	DSR Ref(2018)	DISCRIPTION	Unit	Quantity	Rate	Amount
		Wiring for light point/ fan point/ exhaust fan point/ call				
		bell point with 1.5 sq.mm FRLS PVC insulated copper				
		conductor single core cable in surface / recessed				
		medium class PVC conduit, with modular switch,				
		modular plate, suitable GI box earthing the point with				
		1.5 sq.mm FRLS PVC insulated copper conductor single				
		core cable etc. as required				
1	1.10.1	Group A	Point	159.00	717.00	1,14,003.00
2	1.10.2	Group B	Point	15.00	783.00	11,745.00
3	1.10.3	Group C	Point		990.00	-
	1.4.	Wiring for twin control light point with 1.5 sq.mm FRLS	Point (R/O)		1,290.00	-
		PVC insulated copper conductor single core cable in				
		surface recessed steel conduit, 2 way modular switch,				
		modular plate, suitable GI box and earthing the point				
		with 1.5 sq.mm. FRLS PVC insulated copper conductor				
		single core cable etc. as required.				
<u> </u>	1.12.	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC	meter	320.00	200.00	64,000.00
		insulated copper conductor single core cable in		020.00	200.00	04,000.00
		surface/ recessed medium class PVC conduit along with				
		1 No. 4 sq. mm FRLS PVC insulated copper conductor				
		single core cable for loop earthing as required.				
	1.13.	Wiring for light/ power plug with 4X4 sq. mm FRLS PVC	meter	264.00	308.00	81,312.00
		insulated copper conductor single core cable in				·
		surface/ recessed medium class PVC conduit alongwith				
		2 Nos. 4 sq. mm FRLS PVC insulated copper conductor				
		single core cable for loop earthing as required.				
		single core cable for loop cartining as required.				
		Wiring for circuit/ submain wiring alongwith earth wire				-
		with the following sizes of FRLS PVC insulated copper				
		conductor, singlecore cable in surface/ recessed				
		medium class PVC conduit as required.				
	1.14.1	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	meter	2,260.00	146.00	3,29,960.00
	1.14.2	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	meter	750.00	167.00	1,25,250.00
	1.14.4	2 X 6 sq. mm + 1 X 6 sq. mm earth wire	meter	560.00 400.00	249.00	1,39,440.00
	1.14.5	2 X 10 sq. mm + 1 X 6 sq. mm earth wire	meter	400.00	338.00	1,35,200.00
	1.14.0	2 X 16 sq. mm + 1 X 6 sq. mm earth wire	meter meter	150.00	419.00	1,67,600.00
	0	4x16 sqmm+2x6sqmm earth wire Supplying and drawing co-axial TV cable RG-6 grade, 0.7	meter	600.00	752.00 33.00	1,12,800.00 19,800.00
	0	mm solid copper conductor PE insulated, shielded with	Inclei	000.00	33.00	19,800.00
		· · · · · · · · · · · · · · · · · · ·				
		fine tinnedcopper braid and protected with PVC sheath				
		in the existing surface/ recessed steel/ PVC conduit as				
		required. Supplying and fixing of following sizes of medium class				-
		PVCconduit along with accessories in surface/recess				
		including cutting the wall and making good the same in		1		
		case of recessed conduit as required.				
	1.21.2	25 mm	meter	2,000.00	90.00	1,80,000.00
	1.21.3	32mm	meter	300.00	92.00	27,600.00
		Supplying and fixing following modular switch/ socket		1		-
		on the existing modular plate & switch box including				
		connectionsbut excluding modular plate etc. as		1		
	1.24.1	required. 5/6 Amp Switch	each	78.00	85.00	6,630.00
	1.24.2	2 way 5/6 Amp Switch	each		123.00	
	1.24.3	15/16 Amp Switch	each	34.00	132.00	4,488.00
	1.24.4	3pin 5/6A Socket outlet	each	60.00	111.00	6,660.00
	1.24.5	6pin 15/16 A Socket outlet	each	34.00	117.00	3,978.00
l	L	opin 13/10 A 30cket outlet	1	1	117.00	3,378.00

1.24.6	Telephone Socket outlet	each	12.00	119.00	1,428.00
1.24.7	TV Antene socket outlet	each	7.00	119.00	833.00
1.24.8	Bell push	each	12.00	126.00	1,512.00
1.25.0	Supplying and fixing two module stepped type	each	39.00	342.00	13,338.00
	electronic fan regulator on the existing modular plate				
	switch box includingconnections but excluding modular				
1.44.	plate etc. as required.	each	39.00	171.00	C CC0 00
1.44.	Installation, testing and commissioning of ceiling fan,	eacii	39.00	171.00	6,669.00
	includingwiring the down rods of standard length (upto				
	30 cm) with 1.5sq. mm FRLS PVC insulated, copper				
	conductor, single core cableetc. as required.				
1.50.1	Installation of exhaust fan in the existing opening,	each	9.00	363.00	3,267.00
	including making good the damage, connection,	ouo	0.00	303.00	3,207.00
	testing, commissioning as required upto 450 mm sweep				
	testing, commissioning as required upto 450 mm sweep				
2	Providing and fixing following capacity TP&N				
	disconnector fuseswitch unit inside the existing panel				
	board with ISI marked HRCfuses including drilling holes				
	in cubicle panel, making connections, etc. as required.				
	in cubicie panei, making connections, etc. as required.				
2.1.1	63 A TP&N	each	3.00	2,923.00	8,769.00
2.1.4	125A TP&N	each	1.00	6,696.00	6,696.00
2	Providing and fixing following rating and breaking	each	3.00	.,	-
	capacity andpole MCCB with thermomagnetic release				
	and terminalspreaders in existing cubicle panel board				
	including drilling holesin cubicle panel, making				
	connections, etc. as required.				
2.2.1	100 A, 16 KA,TPMCCB	each	2.00	3,726.00	7,452.00
	Supplying and fixing following way, single pole and				-
	neutral, sheet steel, MCB distribution board, 240 V, on				
	,complete with tinned copper bus bar, neutral bus bar,				
	earthbar, din bar, interconnections, powder painted				
	including earthing etc. as required. (But without				
	MCB/RCCB/Isolator)				
2.3.3	12 way , Double door	each	3.00	2,053.00	6,159.00
2	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10				-
	kA, "C"curve, miniature circuit breaker suitable for				
	inductive load offollowing poles in the existing MCB DB				
	complete withconnections, testing and commissioning				
	etc. as required.				
2.10.1	single pole	each	124.00	199.00	24,676.00
2.10.2	single pole and nutral	each	64.00	544.00	34,816.00
2.10.3	Double pole	each	48.00	556.00	26,688.00
4					-
	painted with powder coating M.S. cable trays with				
	perforationnot morethan 17.5%, in convenient				
	sections, joined with connectors, suspended from the				
	ceiling with M.S. suspenders including bolts& nuts,				
	painting suspenders etc as required.				
1112			110.00		
4.1.2	150 mm width X 50 mm depth X 1.6 mm thickness	meter	140.00	531.00	74,340.00
4.1.3	200 mm width X 50 mm depth X 1.6 mm thickness	meter	120.00	597.00	71,640.00
5.6.	Earthing with copper earth plate 600 mm X 600 mm X 3	set	1.00	11,794.00	11,794.00
	mm thick including accessories, and providing masonry				
	enclosurewith cover plate having locking arrangement				
	and watering pipeof 2.7 metre long etc. with charcoal/				
	coke and salt asrequired.				
6.7.	Droviding and fiving C.L. tags 20 mass V.2 mass thirty are	meter	72.00	104.00	7 400 00
0.7.	Providing and fixing G.I. tape 20 mm X 3 mm thick on	1110101	72.00	104.00	7,488.00
	parapet orsurface of wall for lightning conductor				
	complete asrequired.(For horizontal run)	l	1		

6.8.	Providing and fixing G.I. tape 20 mm X 3 mm thick on parapet orsurface of wall for lightning conductor	meter	48.00	163.00	7,824.00
0.0	complete asrequired.(For vertical run)		1.00		
6.2.	Providing and fixing of lightning conductor finial, made	each	1.00	448.00	448.00
	of 25mm dia 300 mm long, G.I. tube, having single				
	prong attop, with85 mm dia 6 mm thick G.I. base plate				
	including holes etc.complete as required. E				
6.3.	Fiving of lightning conductor finial (single propg) with	each	1.00	280.00	280.00
0.0.	Fixing of lightning conductor finial (single prong) with	Caon	1.00	280.00	280.00
	base plateincluding holes etc. complete as required				
6.12.	Providing and fixing testing joint, made of 20 mm X 3	each	1.00	102.00	102.00
	mm thickG.I. strip, 125 mm long, with 4 nos. of G.I.				
	bolts, nuts, chucknuts and spring washers etc.complete				
	as required.	aaah	9.00	3 400 00	20.500.00
	Supply and installation of Exhaust fans with 450 mm	each	9.00	3,400.00	30,600.00
	sweep				
	Supply of Ceiling Fans with 1200 mm sweep	easc	39.00	2,800.00	1,09,200.00
-	Comply and installation of LED tole 12 1 1 TS	oach	150.00	100.00	24.000.00
	Supply and installation of LED tube light T5	each	150.00	160.00	24,000.00
	Main distribution Board & Sub distribution boards			-	
1.1.	MDB-GH (Normal supply Total of A to D)	set	1.00	2,03,000.00	2,03,000.00
A.	Incomer				
	1 no 250 Amp FP mouldedCase Circuit Breaker of 35 KA(lcs value) with T/M release of O/L, S/C & E/F				
В	protection. Instruments				
В	1 no 0 to 500 volts digital volt meter (96 mm square) with				
	selector switch.				
	I no 0 to 250 Amp digital ammeter (96 mm square) with selector switch at CT's.				
	I set of energy analyser with basic parmeters like				
	frequency, KW, KVA, KVAR, power Factor, harmonica				
	analyser etcshall be with RS 485 port for communication				
	and BMS compatible MODBUS output protocol.				
С	Bus Bars				
	300 Amp TPN bus barsof aluminum alloy.				
	, , , , , , , , , , , , , ,				
D	OUTGOING				
İ	6 no 125 Amp TP moulded case circuit breaker with T/M				
	release and 35 KA(LCSvalue) with nutral link with On/off				
	indicating lamp.				
1.3	2 EMDB-GH(ESSENTIAL SUPPLY, TOTAL OF A TO D)	St	1	130000	130000
A	Incomer breakers				
	1 no 160 Amp FP moulded Cse circuit Breaker of 35 KA (lcs value) with T/M release for O/L , S/C $\&$ E/F protection.				
	Insruments				
	1 no 0 to 500 volts digital voltmeter (96 mm sq) with selector switch.				
	1 no 0 to 160 Amp digital ammeter (96 mmsquare) with				
	selector switch and C/T I set of energy analyser with basic parmeters like		 		
	frequency, KW, KVA,KVAR, power Factor, harmonica				
	analyser etcshall be with RS 485 port for communication				
	and BMS compatible MODBUS output protocol.				

	1 set of phase indicating lights(RYB) with protection MCB.				
	I setbreaker ON/OFF indicating lamp.				
	BUS BARS				
	200 Amp TPN bus barsof aluminum alloy.				
D	OUTGOING				
	5 no 40 to 63 amp TP moulded case circuit breaker with T/M release and of 25 KA (lcsvalue) with nutral link.				
1.3	SDB-EL TYPICAL for for SDB-L (-1) total of A to D.	Set	3	117000	351000
Α	INCOMER				
	1 no 125 Amp FP moulded Cse circuit Breaker of 25 KA (lcs value) with T/M release for O/L , S/C & E/F protection.				
В	INSTRUMENTS				
	1 no 0 to 500 volts digital voltmeter (96 mm sq) with selector switch.				
	1 no 0 to 125 Amp digital ammeter (96 mmsquare) with selector switch and C/T				
	1 no 96 sq mm digital kilowatt hour meter with RS 485 port for communication., BMS compatible and MODBUS output.				
	1 set of phase indicating lights (RYB) with protection mcb.				
	1 set breaker ON 7 OFF indicating lamp.				
C	BUSBARS				
	150 Amp TPN busbar of aluminum alloy.				
	OUTGOING				
	6 no 40 to 63 Amp TP moulded case circuit breaker with T/m release and of 25 KA Ics value with nutral link.				
					26,94,485.00
			ļ		

Water supply and Plumbing

S.No	DSR Ref No 2016	Descripion	Unit	Quantity	Rate	Amount	35.35%	Rate with added factor	Net Amount
1		Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x410x265 mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required:							
2	17.4.2	Range of two urinal basins with 5 litre white P.V.C. automatic flushing cistern	each	7	5373.4	37613.8	1738.3	7111.6949	49781.8643
3		Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I. brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever				0	0	0	0
4	17.3.1	W.C. pan with ISI marked white solid plastic seat and lid	each	17	4593.8	78093.8	1486.1	6079.8281	103357.078
5	17.7B	Providing and fixing wash basin with C.I. brackets, 15 mm PTMT pillar cock, 32 mm PTMT waste coupling of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required. White Vitreous China Flat back wash basin size 550x400 mm with single 15 mm PTMT pillar cock.	each	14	1706.2	23886.8	551.96	2258.1557	31614.1798
6	17.16A	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.	each	17	254.8	4331.6	82.428	337.2278	5732.8726
7	17.19	Providing and fixing controlled flush, low level cistern made of vitreous china with all fittings complete.				0	0	0	0
8	17.19.1	10 litre (full flush) capacity-white	each	17		24692.5	469.88		
9	17.22A	Providing and fixing CP Brass 32mm size Bottle Trap of approved quality & make and as per the direction of Engineerin charge.	each	14	795.15	11132.1	257.23	1052.381	14733.3344
10	17.28	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete				0	0		0
11		Semi ridgid pipe, 40 mm	meter	80	81.4		26.333		8618.632
12	17.35	Providing and fixing soil, waste and vent pipes				0	0	0	0
13	17.35.1.2	Centrifugally cast (spun) iron socket & spigot (S&S) pipe as per IS: 3989 (100 mm dia)	meter	15	921.65	13824.8	298.15	1219.8038	18297.0566
14	17.39	Providing and fixing plain bend of required				0	0	0	0
15	17 39 1 2	degree(100 mm dia) Sand cast iron S&S as per IS: 3989	each	3	334 95	1004.85	108.36	443.30633	1329.91898

16	18.8								
		Providing and fixing Chlorinated Polyvinyl				0	0	0	0
		Chloride (CPVC) pipes, having thermal							
		stability for hot & cold water supply,							
		including all CPVC plain & brass threaded							
		fittings, i/c fixing the pipe with clampsat							
		1.00 m spacing. This includes jointing of							
		pipes & fittings with one step CPVC							
		solvent cement and the cost of cutting							
		chases and making good the same							
		including testing of joints complete as per							
		directionof Engineer in Charge. Concealed							
		work, including cutting chases and making							
47	10.01	agod the welle etc.		400	0.40.0	0.4000	70.040	005.0457	00504.57
17	18.8.1	15 mm nominal outer dia Pipes	meter	100	246.2	24620	79.646	325.8457	32584.57
	18.8.2	20 mm nominal outer dia Pipes	meter	140	284.85	39879	92.149	376.99898	52779.8565
	18.8.3	25 mm nominal outer dia Pipes	meter	100	333.6	33360	107.92	441.5196	44151.96
	18.8.3	32 mm nominal outer dia Pipes	meter	20	412.9	8258	133.57	546.47315	10929.463
	18.33	Constructing masonry Chamber 60x60x75				0	0	0	0
		cm inside, in brick work in cement mortar							
		1:4 (1 cement : 4 coarse sand) for sluice							
1 1		valve, with C.I. surface box 100mm top							
		diameter, 160 mm bottom diameter and							
		180 mm deep (inside) with chained lid							
		and RCC top slab 1:2:4 mix (1 cement : 2							
1 1									
		coarse sand : 4 graded stone aggregate							
		20mm nominal size) , i/c necessary							
		excavation, foundation concrete 1:5:10 (1							
		cement : 5 fine sand : 10 graded stone							
		aggregate 40 mm nominal size) and inside							
		plastering with cement mortar 1:3 (1							
		cement : 3 coarse sand) 12 mm thick,							
		finished with a floating coat of neat							
		cemencomplete as per standard design :							
		Toomorioompioto ao por otaridara doorgii .							
	18.33.1	With common burnt clay F.P.S.(non	each	8	6849.6	54796.8	2215.8	9065.4456	72523.5648
		modular) bricks of class designation 7.5							
	17.34	Providing and fixing toilet paper holder:				0	0	0	
	17.34.1	C D brook							0
		C.P. brass	each	17	385.35	6550.95	124.66	510.01073	8670.18233
	17.32	Providing and fixing mirror of superior	eacn	17	385.35	6550.95 0	124.66 0		8670.18233 0
		Providing and fixing mirror of superior	eacn	17	385.35	6550.95 0		510.01073	8670.18233 0
		Providing and fixing mirror of superior glass (of approved quality) and of required	eacn	17	385.35	6550.95 0		510.01073	8670.18233 0
		Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame	eacn	17	385.35	6550.95 0		510.01073	8670.18233 0
		Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm	eacn	17	385.35	6550.95 0		510.01073	8670.18233 0
		Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame	eacn	17	385.35	6550.95 0		510.01073	8670.18233 0
	17.32	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing:				0	0	510.01073 0	0
	17.32 17.32.4	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Rectangular shape 1500x450 mm	each	17	385.35 1323.1	0	428.02	510.01073 0 1751.1229	0
	17.32	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Rectangular shape 1500x450 mm Providing and fixing Chlorinated Polyvinyl				0	0	510.01073 0	0
	17.32 17.32.4	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Rectangular shape 1500x450 mm Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal				0	428.02	510.01073 0 1751.1229	0
	17.32 17.32.4	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Rectangular shape 1500x450 mm Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply				0	428.02	510.01073 0 1751.1229	0
	17.32 17.32.4	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Rectangular shape 1500x450 mm Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded				0	428.02	510.01073 0 1751.1229	0
	17.32 17.32.4	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Rectangular shape 1500x450 mm Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes &				0	428.02	510.01073 0 1751.1229	0
	17.32 17.32.4	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Rectangular shape 1500x450 mm Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded				0	428.02	510.01073 0 1751.1229	0
	17.32 17.32.4	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Rectangular shape 1500x450 mm Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes &				0	428.02	510.01073 0 1751.1229	0
	17.32 17.32.4	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Rectangular shape 1500x450 mm Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of				0	428.02	510.01073 0 1751.1229	0
	17.32.4 18.9	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Rectangular shape 1500x450 mm Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of	each	14	1323.1	18523.4 0	428.02 0	510.01073 0 1751.1229 0	24515.7199 0
	17.32.4 18.9	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Rectangular shape 1500x450 mm Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge 15 mm nominal outer dia Pipes		14	1323.1	18523.4 0	428.02 0	510.01073 0 1751.1229 0	24515.7199 0
	17.32.4 18.9	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Rectangular shape 1500x450 mm Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of	each	14	1323.1	18523.4 0	428.02 0	510.01073 0 1751.1229 0	24515.7199 0
	17.32.4 18.9	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Rectangular shape 1500x450 mm Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge 15 mm nominal outer dia Pipes 20 mm nominal outer dia Pipes	each	14 120 200	1323.1	18523.4 0 14478 29860	428.02 0	510.01073 0 1751.1229 0	24515.7199 0 19161.633 39519.71 20291.902
	17.32.4 18.9 18.9.1 18.9.2	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Rectangular shape 1500x450 mm Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge 15 mm nominal outer dia Pipes	each meter meter	14 120 200	1323.1 120.65 149.3 191.65	18523.4 0 14478 29860 15332	428.02 0 39.03 48.299	510.01073 0 1751.1229 0 159.68028 197.59855	24515.7199 0 19161.633 39519.71
	17.32.4 18.9 18.9.1 18.9.2 18.9.3	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Rectangular shape 1500x450 mm Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge 15 mm nominal outer dia Pipes 20 mm nominal outer dia Pipes 32mm nominal outer dia Pipes	each meter meter meter meter meter meter	14 120 200 80	1323.1 120.65 149.3 191.65 250.55	18523.4 0 14478 29860 15332 40088	39.03 48.299 61.999 81.053	510.01073 0 1751.1229 0 159.68028 197.59855 253.64878 331.60293	24515.7199 0 19161.633 39519.71 20291.902 53056.468
	17.32.4 18.9 18.9.1 18.9.2 18.9.3 18.9.4 18.9.5	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Rectangular shape 1500x450 mm Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge 15 mm nominal outer dia Pipes 20 mm nominal outer dia Pipes 32mm nominal outer dia Pipes 40mm nominal outer dia Pipes	each meter meter meter meter meter meter meter	120 200 80 160 50	1323.1 120.65 149.3 191.65 250.55 321.15	18523.4 0 14478 29860 15332 40088 16057.5	39.03 48.299 61.999 81.053 103.89	510.01073 0 1751.1229 0 159.68028 197.59855 253.64878 331.60293 425.04203	24515.7199 0 19161.633 39519.71 20291.902 53056.468 21252.1013
	17.32.4 18.9 18.9.1 18.9.2 18.9.3 18.9.4 18.9.5 18.9.6	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Rectangular shape 1500x450 mm Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge 15 mm nominal outer dia Pipes 20 mm nominal outer dia Pipes 32mm nominal outer dia Pipes 40mm nominal outer dia Pipes 62.50 mm nominal outer dia Pipes	each meter meter meter meter meter meter meter meter meter	120 200 80 160 50	120.65 149.3 191.65 250.55 321.15 1081.8	18523.4 0 14478 29860 15332 40088 16057.5 32452.5	39.03 48.299 61.999 81.053 103.89 349.95	1751.1229 0 159.68028 197.59855 253.64878 331.60293 425.04203 1431.6961	19161.633 39519.71 20291.902 53056.468 21252.1013 42950.8838
	17.32.4 18.9 18.9.1 18.9.2 18.9.3 18.9.4 18.9.5 18.9.6 18.9.6	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Rectangular shape 1500x450 mm Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge 15 mm nominal outer dia Pipes 20 mm nominal outer dia Pipes 32mm nominal outer dia Pipes 40mm nominal outer dia Pipes 62.50 mm nominal outer dia Pipes 50mm nominal outer dia Pipes	each meter	120 200 80 160 50 30	120.65 149.3 191.65 250.55 321.15 1081.8 484.25	18523.4 0 14478 29860 15332 40088 16057.5 32452.5 14527.5	39.03 48.299 61.999 81.053 103.89 349.95 156.65	1751.1229 0 159.68028 197.59855 253.64878 331.60293 425.04203 1431.6961 640.90488	19161.633 39519.71 20291.902 53056.468 21252.1013 42950.8838 19227.1463
	17.32.4 18.9 18.9.1 18.9.2 18.9.3 18.9.4 18.9.5 18.9.6 18.9.6 18.9.8	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Rectangular shape 1500x450 mm Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge 15 mm nominal outer dia Pipes 20 mm nominal outer dia Pipes 32mm nominal outer dia Pipes 40mm nominal outer dia Pipes 62.50 mm nominal outer dia Pipes 50mm nominal outer dia Pipes 50mm nominal outer dia Pipes 75mm nominal outer dia Pipes	each meter	120 200 80 160 50 30 60	120.65 149.3 191.65 250.55 321.15 1081.8 484.25 1201.1	18523.4 0 14478 29860 15332 40088 16057.5 32452.5 14527.5 72063	39.03 48.299 61.999 81.053 103.89 349.95 156.65 388.54	1751.1229 0 1751.1229 0 159.68028 197.59855 253.64878 331.60293 425.04203 1431.6961 640.90488 1589.5897	19161.633 39519.71 20291.902 53056.468 21252.1013 42950.8838 19227.1463 95375.3805
	17.32.4 18.9 18.9.1 18.9.2 18.9.3 18.9.4 18.9.5 18.9.6 18.9.8 18.9.9	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Rectangular shape 1500x450 mm Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge 15 mm nominal outer dia Pipes 20 mm nominal outer dia Pipes 32mm nominal outer dia Pipes 40mm nominal outer dia Pipes 50mm nominal outer dia Pipes 50mm nominal outer dia Pipes 50mm nominal outer dia Pipes 75mm nominal outer dia Pipes	meter meter meter meter meter meter meter meter meter meter meter meter	120 200 80 160 50 30 60 120	120.65 149.3 191.65 250.55 321.15 1081.8 484.25 1201.1 1618.1	18523.4 0 14478 29860 15332 40088 16057.5 32452.5 14527.5 72063 194172	39.03 48.299 61.999 81.053 103.89 349.95 156.65 388.54 523.46	159.68028 197.59855 253.64878 331.60293 425.04203 1431.6961 640.90488 1589.5897 2141.5554	19161.633 39519.71 20291.902 53056.468 21252.1013 42950.8838 19227.1463 95375.3805 256986.642
	17.32.4 18.9 18.9.1 18.9.2 18.9.3 18.9.4 18.9.5 18.9.6 18.9.6 18.9.8	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Rectangular shape 1500x450 mm Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge 15 mm nominal outer dia Pipes 20 mm nominal outer dia Pipes 32mm nominal outer dia Pipes 40mm nominal outer dia Pipes 62.50 mm nominal outer dia Pipes 50mm nominal outer dia Pipes 50mm nominal outer dia Pipes 75mm nominal outer dia Pipes	each meter	120 200 80 160 50 30 60	120.65 149.3 191.65 250.55 321.15 1081.8 484.25 1201.1	18523.4 0 14478 29860 15332 40088 16057.5 32452.5 14527.5 72063 194172	39.03 48.299 61.999 81.053 103.89 349.95 156.65 388.54	1751.1229 0 1751.1229 0 159.68028 197.59855 253.64878 331.60293 425.04203 1431.6961 640.90488 1589.5897	24515.7199 0 19161.633 39519.71 20291.902 53056.468 21252.1013 42950.8838 19227.1463 95375.3805 256986.642 446317.288
	17.32.4 18.9 18.9.1 18.9.2 18.9.3 18.9.4 18.9.5 18.9.6 18.9.8 18.9.9	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing: Rectangular shape 1500x450 mm Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge 15 mm nominal outer dia Pipes 20 mm nominal outer dia Pipes 32mm nominal outer dia Pipes 40mm nominal outer dia Pipes 50mm nominal outer dia Pipes 50mm nominal outer dia Pipes 50mm nominal outer dia Pipes 75mm nominal outer dia Pipes	meter meter meter meter meter meter meter meter meter meter meter meter	120 200 80 160 50 30 60 120	120.65 149.3 191.65 250.55 321.15 1081.8 484.25 1201.1 1618.1	18523.4 0 14478 29860 15332 40088 16057.5 32452.5 14527.5 72063 194172	39.03 48.299 61.999 81.053 103.89 349.95 156.65 388.54 523.46	159.68028 197.59855 253.64878 331.60293 425.04203 1431.6961 640.90488 1589.5897 2141.5554	24515.7199 0 19161.633 39519.71 20291.902 53056.468 21252.1013 42950.8838 19227.1463 95375.3805 256986.642

GARDEN & HORTICULTURE

	DSR Ref				ULTURE			Rate with	
S.No	No(2016)	Item description	Ur	nit	Quantity	Rate	Amount	32.35% factor	Net Amount
1	2.1	Trenching in ordinary soil up to a depth of 60 cm including removal and stacking of serviceable materials and then disposing of surplus soil, by spreading and neatly leveling within a lead of 50 m and making up the trenched area to proper levels by filling with earth or earth mixed with sludge or / and manure before and after flooding trench with water (excluding cost of imported earth, sludge or manure).	cum		600	45.85	27510	60.682475	36409.485
2	2.2	Supplying and stacking of good earth at site including royalty and carriage upto 5 km complete (earth measured in stacks will be reduced by 20% for payment).	cun		300	332.55	99765	440.129925	132038.9775
	2.3	Supplying and stacking sludge at site including royalty and carriage upto 5 km complete (sludge measured in stacks will be reduced by 8% for payment).	cum		150	235.55	35333	311.750425	46762.56375
3	2.6	Uprooting weeds from the trenched area after 10 to 15 days of its flooding with water including disposal of uprooted vegetation.	Sqm		1200	2.9	3480	3.83815	4605.78
4	2.7	Fine dressing of the ground.	Sqm		1200	2.15	2580	2.845525	3414.63
5	2.8	Spreading of sludge, dump manure and/or good earth in required thickness as per direction of officer-in-charge (cost of sludge, dump manure and/ or good earth to be paid separately).	Cum		150	30.95	4642.5	40.962325	6144.34875
6	2.1	Grassing with selection No. 1 grass including watering and maintenance of the lawn for 60 days or more till the grass forms a thick lawn, free from weeds and fit for mowing including supplying good earth, if needed (the grass and earth shall be paid for separately).					0	0	0
7 8	2.10.1 2.11	In rows 5 cm apart in both directions Renovating lawns including weeding, cheeling the grass, forking the ground, top dressing with sludge or manure, mixing the same with forked soil, watering and maintaining the lawn for 60 days or more till the grass forms a thick lawn free from weeds and fit for mowing and disposal of rubbish as directed, including supplying good earth if needed but excluding the cost of sludge or manure (The manure/sludge shall be paid for separately).			1200 1200	7.85 20.15	9420 24180	10.389475 26.668525	12467.37 32002.23
9	2.13	Preparation of beds for hedging and shrubbery by excavating 60 cm deep and trenching the excavated base to a further depth of 30 cm, refilling the excavated earth after breaking clods and mixing with sludge or manure in the ratio of 8:1 (8 parts of stacked volume of earth after reduction by 20%: one part of stacked volume of sludge or manure after reduction by 8%), flooding with water, filling with earth if necessary, watering and finally fine dressing, leveling etc. including stacking and disposal of materials declared unserviceable and surplus earth by spreading and leveling as directed, within a lead of 50 m, lift up to 1.5 m complete (cost of sludge, manure or extra earth to be paid for separately)	cum		160	130.35	20856	172.518225	27602.916

Stick 1Mali =1.25Acre) Sqm/month	10		Complete maintenance of the entire garden features having as per yard stick in the garden area i.e. lawn trees, shrubs, hedge, flower beds, foliages, creepers etc. including hoeing, weeding pruning replacement of plants, gap filling, watering, mowing of lawn, grass cutting by lawn mover and brush cutter, removal of garden waste, applying insecticide, pesticide & fertilizers(whenever required) top dressing of lawn with good earth and menure and maintenance of other garden related works as directed by office-in-charge (Cost of Good Earth, Manure, Fertilizer, Insecticide, Pesticide, lawn mover and brush cutter with fuel will be provided by the Department & other T & P material/articles shall be provided by the contractor.)				0	0	0
2.43 Complete maintenance of shrubs (Out side garden features), jobs like making of basin at regular interval i/c watering, weeding, pruning & application of fertilizer etc, (excluding the cost of material which shall be supplied by Per Shrub the department) and as per direction of officer in charge. 13 2.53 Providing and wartering of plants through water tanker of Horticulture features i.e. tree, shrubs, hedge/edge, ground cover etc. at the site of work. Water tanker having \$5000 lit. capacity with one labour for watering i/c cost of water, filling of tanker, wartering at site with all leads and lifts as per direction of officer-in-charge. 14 2.56 Anti termite treatment of lawn area through premise 30.50% I P. one liter premise diluted in 499 liters water and applying solution @ 1.00 litre solution per sqm lawn or bed area. (two application) i/c cost of chemical)and as per direction of officer-in-charge. Q	11	2.39.2	1 ' ' ' '	1.	12	2.2	26.4	2.9117	34.9404
Horticulture features i.e. tree, shrubs, hedge/edge, ground cover etc. at the site of work. Water tanker having 5000 lit. capacity with one labour for watering i/c cost of water, filling of tanker, wartering at site with all leads and lifts as per direction of officer-in-charge. 14 2.56 Anti termite treatment of lawn area through premise 30.50% I P. one liter premise diluted in 499 liters water and applying solution @ 1.00 litre solution per sqm lawn or bed area.(two application) i/c cost of chemical)and as per direction of officer-in-charge. and as per direction of officer-in-charge. 15 2,57 Plantation of Trees, Shrubs, and Hedge at site i/c watering and removal of unserveiceable material's as per direction of officer in charge (excluding cast of plant & water) 2.57.1 Trees Plant Each 60 4.25 255 5.624875 337.4 2.57.2 Shrub plant Each 1000 2.15 2150 2.845525 2845. 2.57.3 Hedgs Plant Each 800 1.4 1120 1.8529 1482	12	2.43	Complete maintenance of shrubs (Out side garden features), jobs like making of basin at regular interval i/c watering, weeding, pruning & application of fertilizer etc, (excluding the cost of material which shall be supplied by Per Shrub the department) and as per direction of officer	per sqm/	12	9.25	111	12.242375	146.9085
30.50% I P. one liter premise diluted in 499 liters water and applying solution @ 1.00 litre solution per sqm lawn or bed area.(two application) i/c cost of chemical)and as per direction of officer-in-charge. and as per direction of officer-in-charge. 15 2,57 Plantation of Trees, Shrubs, and Hedge at site i/c watering and removal of unserveiceable material's as per direction of officer in charge (excluding cast of plant & water) 2.57.1 Trees Plant Each 60 4.25 255 5.624875 337.4 2.57.2 Shrub plant Each 1000 2.15 2150 2.845525 2845. 2.57.3 Hedgs Plant Each 800 1.4 1120 1.8529 1482	13	2.53	Horticulture features i.e. tree, shrubs, hedge/edge, ground cover etc. at the site of work. Water tanker having 5000 lit. capacity with one labour for watering i/c cost of water, filling of tanker, wartering at site with all leads and		48	726.3	34862	961.25805	46140.3864
and removal of unserveiceable material's as per direction of officer in charge (excluding cast of plant & water) 2.57.1 Trees Plant Each 60 4.25 255 5.624875 337.4 2.57.2 Shrub plant Each 1000 2.15 2150 2.845525 2845. 2.57.3 Hedgs Plant Each 800 1.4 1120 1.8529 1482	14	2.56	30.50% I P. one liter premise diluted in 499 liters water and applying solution @ 1.00 litre solution per sqm lawn or bed area.(two application) i/c cost of chemical)and as per direction of officer-in-charge.and as per direction of	Sqm	1200	7.05	8460	9.330675	11196.81
2.57.2 Shrub plant Each 1000 2.15 2150 2.845525 2845. 2.57.3 Hedgs Plant Each 800 1.4 1120 1.8529 1482	15	2,57	and removal of unserveiceable material's as per direction				0	0	0
2.57.2 Shrub plant Each 1000 2.15 2150 2.845525 2845. 2.57.3 Hedgs Plant Each 800 1.4 1120 1.8529 1482		2.57.1	Trees Plant	Each	60	4.25	255	5.624875	337.4925
		2.57.2	Shrub plant	Each	1000	2.15	2150	2.845525	2845.525
		2.57.3	Hedgs Plant	Each	800	1.4	1120	1.8529	1482.32 363632.6838

	1			I						
Dated:	20-Apr-19		Updated:							
Subject:	20 740. 10	l		OF QUANTITY FOR CIVIL & STRUCTURAL WO	RKS	L. L.				
	IAWAN CEN	TRE FOR S	PACE SCIE	NCE, CENTRALUNIVERSITY OF JAMMU.						
Developme										
1. Plot area										
2. Ground,	1st & 3rd flo	or built up a	rea (1260 s	qm)						
Sr. No	Notes	BOQ Ref No(DSR201 6)	Location	Description of Items	Unit	Quantity	Rate	Amount	Add factor 32.35% to DSR 2016 rates	Net Amount
				1. All the items of substructure include the cost of dewatering, wherever necessary during the progress of work till its completion without any extra cost to client. Tenderers are advised to visit site of work to acquaint themselves about the level of subsoil water, drainage facility for dewatering, accessibility to the site & quote the rates accordingly. 2. Water and Electricity will be supplied free by owner at one point. Storage at site is to be arranged by the contractor. 3. Actual quantity may vary as per actual site condition. Rate should be firm even if there is variation in quantities. 4. In a event of contradiction of description of levery marks are accordingly.						
				work, make or specifications (between general/special terms, BOQ or Drawings) the higher one shall prevail and the Architect's decision in this regard will be final and binding on the Contractor.					addedfacto r 32.35% to rates	
1.00				EXCAVATION & EARTH WORK						
	General Excavation	2.8		Earth work in excavation by mechanical means(hydraulc 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 bottom, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as ditrected, within a lead of 50m.	Cum					
		2.8.1		All kinds of soil	Cum	468.00	166	77,875	220.23	103067.8
		2.9.1		ordinary rock	Cum	32.00	276	8,827	365.09	11682.8
		2.9.3		Hard rock(blasting prohibited)	Cum	21.00	657	13,791	869.14	18251.99
		2.11		Extra over item 1.01 excavation in allkind of soil from 1.5m t 3.0 m.	Cum	53.00	211	11,183	279.26	14800.7
		2.11.		Extra over item 1.02 excavation in ordinary rock from 1.5m to 3.0m	Cum	32.00	350	11,200	463.23	14823.2
		2.11		Extra over item 1.03 excavation in hard rock by chissling from 1.5m to 3.0m	Cum	21.00	834	17,514	1,103.80	23179.78
		2.12.		Extra over item 1.01 excavation in all kinds of soil from 3.0m to 4.5m.	Cum	21.50	523	11,245	692.19	14882.1
		2.12		Extra over item 1.02 excavation in ordinary rock from 3.0 m to 4.5 m	Cum	21.50	869	18,684	1,150.12	24727.61
		2.12		Extra over item 1.03 excavation in hard rock from 3.0m to 4.5m without blating.	Cum	10.00	2,069	20,690	2,738.32	27383.22
	Filling			Filling in plinth, drive-way, roads or at any other place with earth, spreading in layers less than 150mm thickness including watering, ramming and consolidating mechanically roller wherever possible or with mechanical hammers to give 95% proctor density. The backfilling materials shall be mixture of soil aggregate materials consisting of stones, gravel, sand, & small quantity of fine materials as given in soil report. The soil aggregate materials shall be brought from one location. The backfilling shall be in layers not exceeding 150mm.						
		2.25		With excavated material/ earth	Cum	540.00	126	67,905	166.43	89872.27
		2.27		Supplying and fillng in plinth with sand under floors, including watering, ramming,	Cum	220.00	917		1,213.65	267002.9
			L	consolidating and dressing complete						

1	Anti- termite treatment		Providing pre-constructional Anti-termite treatment by treating bottom surface and sides of excavation, back fill in immediate contact with foundation, top surface of plinth filling (at the rate of 5 liters of an emulsion concentrate of 1.0 percent of Chlorpyrifos 20EC or equivalent approved chemical per square meter of surface area), treatment to the soil along with external Perimeter of the building by punching holes of 12 to 15 mm diameter about 300 to 600 m deep at 150 mm center to center as close to the all as possible and inject 0.5% Chloropyrifos at the rate of 7.5 liters emulsion concentrate per hole and sealing the same with proper filling etc. complete through approved manufacturers with 10 years guarantee bond and as per specifications complete (IS 6313 part II) (only plinth area of building at ground floor for all the above operations will be measured for payment)						
		2.34.1	Supply of chemical emulsion in sealed containers, including delivery, Chloropyrifor/Lindane emulsifiable concentrate	Litre	300.00	186	55,800	246.17	73851.3
		2.35.1.1	Diluting and Injecting chemical emulsion	SQM	600.00	17	10,080	22.23	13340.88
2.00			CONCRETE AND ALLIED WORKS						
	PCC- In- Situ		Providing and laying plain cement concrete in position and compaction as specified machine mixed plain cement concrete using maximum 40 mm down graded coarse aggregate including all necessary dewatering, form work, casting in panels of any size and thickness wherever necessary, in M15 grade of concrete to shape and depth as specified curing, etc., complete for any thickness. The min. cement content shall be 270 kg/cum In foundation pits, below footings, rafts, shear walls, plinth beams, retaining walls, In pavements, plinth protection, flooring, as a sub-base either inside / outside the building etc.complete as per specifications, drawings and as directed by the Engineer-incharge.						
		4.1.4	a) PCC below Foundation/plinth 100mm thick	Cum	55.00	5,390	2,96,475	7,134.26	392384.3
		4.1.4 4.1.4	b) PCC for floor 100mm thick c) PCC for Plinth Protection	Cum Cum	63.44 23.60	5,390 5,390		7,134.26 7,134.26	452597.5 168368.5
	RCC Work- In-Situ		Providing and casting to required sizes, shapes and heights, concrete of M25 grade, machine batched and machine mixed, including admixutes conforming to IS 9103 with 20 mm down graded coarse aggregate, cement contect 300kg/cubic meter (extra or les as per mix design to be paid estra or recovered)including all necessary dewatering etc. consolidating with power driven mechanical vibrators, curing, carefully making good the damaged surfaces wherever necessary and as directed including roughening and/or hacking exposed concrete surfaces for key for plastering providing all necessary holes, cutouts, slits and depressions, etc. in form work and concrete to place pipelines for ancillary services in any form as shown in the drawing and as directed including all structural members as per drawings						
		5.33.1	All works upto plinth level	Cum.	174.44		########	8,531.88	1488301
	Reinforce ment	5.33.2 5.22.6	All works above plinth Level Steel reinforcement for RCC work including straightening, cutting, bending placing in position and binding, complete allupto plinth level. TMT bars of grade_Fe500	MT	363.00 26.40		#######################################	9,595.44	3483145 1977627
		5.22A.6	Steel reinforcement for RCC work including straightening, cutting, bending placing in position and binding, complete all above plint level and using TMTbars of grade Fe500.	MT	53.35	56,600	#######	#######	3996454

Providing, sereting, fishing in position striking encoding and entering and entering and entering and entering and entering and extended and all hopids for all governation should be a foundation of approved material including providing moulds, as per disniving and as enquired for specifical moulding providing moulds, as per disniving and as enquired for specifical must, seathers, pource grains at linear producing finished connected authors, seathers, pource grains, fastering of adaptive, seathers, pource grains, fastering of adaptive, seathers, pource grains, fastering of adaptive, seathers, countries of including month and seathers, and all seathers of formation for the providing and application, providing and applying approved form of on all services of formation from the producing and providing and and providing and and providing and and providing and providing and and providing anotice and providing and providing and providing and providing and						1	1		1		
Simple S		Formwork			removing and cleaning shuttering and centering with plastic coated plywood for formwork at all depths & locations, other structural members at all heights for all geometrical shapes, of approved material including providing moulds, as per drawings and as required for specified including proper bracing, ties, anchors, bolts, nuts, washers, packing plates, fasteners of adequately designed capacities, producing finished concrete surfaces at all locations, for all shapes, sizes, curves etc including chamfers, splays, keys, wedges, props, rails, bracings, brackets, cutting holes for pipes etc. providing and applying approved form oil on all surfaces of formwork coming in contact with concrete, including finishing concrete surfaces to all exposed concrete work after removal of form works by filling form-tie holes and hacking surfaces (other than ceiling and soffit), removal						
Including cleaning up of loose and disposing the debris ete., rendering smooth with a floating cost of nament including nest of reamous of forms.											
debris etc., rendering smooth with a floating coat of cement including own and including including purishing the production and pilling to the production and pilling to the production and pilling in coat of cement is 6 coarse sand) 1,32,502 256,76 175,966,4 5.9,3 5.9,3 5.9,10 7.0,5 5.9,3 5.9,3 5.9,10 7.0,5 5.9,3 5.9,3 5.9,10 7.0,5 5.9,3 5.9,3 5.9,10 7.0,5 5.9,3 5.9,3 5.9,10 7.0,5 5.9,3 5.9,10 7.0,5 5.9,3 5.9,10 7.0,5 5.9,3 5.9,10 7.0,5 5.9,3 5.9,10 7.0,5 5.9,3 5.9,5					,						
5.9.1 3) Foundations, Footings, bases of columns. Sgm 683.00 194 1,32,502 256.76 175866.4 5.9.2 b. Sheer walls any thickness, including attached plasters. butterssess 0,518.5, suspended floors, roofs, landings, balconies and access platform, with water proof not 12mm, (1 lots & mater height) 1,554.00 422 6,56,254 558.91 868552.4 5.9.7 Statis excluding landings 0,517.5 1,554.00 1,554.00 1,554.00 1,554.00 1,555.01 1,556.01 1,5					debris etc., rendering smooth with a floating						
Sys.2 Dilasters, butteresses Sylin 141.00 379 53.535 391.00 7069167			5.9.1		a) Foundations, Footings, bases of columns.	Sqm	683.00	194	1,32,502	256.76	175366.4
1.554.00 1.554.00 4.22 6.56.254 558.91 868552.4 5.9.7 Stains sexcluding landings Sqm 1.554.00 4.22 6.56.254 558.91 868552.4 5.9.7 Stains excluding landings Sqm 165.00 4.19 69.193 555.01 91576.6 5.9.7 Stains excluding landings Sqm 165.00 4.19 69.193 555.01 91576.6 5.9.7 Stains excluding landings Sqm 165.00 4.19 69.193 555.01 91576.6 5.9.7 Stains excluding landings Sqm 165.00 4.19 69.193 555.01 91576.6 5.9.7 Stains excluding landings Sqm 165.00 4.19 69.193 555.01 91576.6 5.9.7 Stains excluding landings Sqm 165.00 4.19 69.193 555.01 91576.6 5.9.7 Sqm Sq			5.9.2			Sqm	141.00	379	53,383	501.08	70651.87
S.9.7 stairs excluding landings Sqm 165.00 419 69.193 555.01 91576.6			5.9.3		c) Slab, suspended floors, roofs, landings, balconies and access platform, with water proof	Sqm	1,554.00	422	6,56,254	558.91	868552.4
structural Steel 5.11.1 3.00 MASONRY To rear side protaction and applying a prime coat of approved steelurioning and fishing in position and applying a prime coat of approved steelurioning and little protaction wall mount of the steelurion and position and applying a prime coat of approved steelurioning and into protaction wall mount of the steelurion and position and applying a prime coat of approved steelurion and plinth including levelling up with coment in concrete 1:6:12 (12 enement: 6 coarse sand) 7.1 Cement mortar 1:6 (1 cement: 6 coarse sand) 7.2 Sequence of the steelurion and plinth including levelling up with cement concrete 1:6:12 (1 cement: 6 coarse sand) 7.2 Cement mortar 1:6 (1 cement: 6 coarse sand) 8.3 Cum 167.00 4,795.15 8,00,790 6,346.33 1059846 8.1 Cum 25.4 Cum 167.00 4,795.15 8,00,790 6,346.33 1059846 8.2 Cum 167.00 4,795.15 8,00,790 6,346.34 1059846 8.3 Cum 167.00 4,795.15 8,00,790 6,346.34 1059846 8.4 Cum 167.00 4,795.15 8,00,790 6,346.34 1059846 8.5 Cum 1			5.9.7			Sam	165.00	419	69.193	555.01	91576.6
bracing, propping etc. including cost of deschuttering at all levels over a height of 3.5 mtr for every additional height of 1 mtr or part thereof (Only plan area to be successful and the property of the part of 2.5 mtr for every additional height of 1 mtr or part thereof (Only plan area to be successful and the property of 1.0.2 structural steel work riveted, bolted or welded in built up sections, trusses or framwd work, including cutting hosting and fixing in position and applying a prime coat of approved steelermer all committee. 7.1 for rear side protaction wall size and property of the level, including leveling up with cement concrete 1.6.12 (1 cement : 6 coarse sand) 7.1 Cement mortar 1.6 (1 cement : 6 coarse sand) Random rubble masonry with hard stone in superstructure above plinth level and upto floor five level, including leveling up with cement concrete 1.6.12 (1 cement : 6 coarse sand) 7.2 cement mortar 1.6 (1 cement : 6 coarse sand) Random rubble masonry with norm norminal size) at window sils, ceiling level and the like. 7.2.1 Cement mortar 1.6 (1 cement : 6 coarse sand) Brick work with common burnt clayFPS, of class/designation 7.5, in foundation and plinth, with CML 1.4 Providing and laying autoclaved aerated cement blocks masonry with 150mm/230 mm/300mm thick AAC blocks in superstructure above plinth level upto floor V, level with proceed block laying ploymer modified adhesive mortar all complete sper direction of Engineer in Charge. (The payment of RCC band and reinforcement shall be made for seperately).					d) Extra for additional height in centering,			-			
Structural Steel work riveted, bolted or welded in built up sections, trusses or framwed work including cutting hosting and fixing in position and applying a prime coat of approved steel/river all complete. 3.00 MASONRY For rear side protaction wall 7.1 The protaction wall The			5.11.1		bracing, propping etc. including cost of deshuttering and decentering at all levels over a height of 3.5 mtr for every additional height of 1 mtr or part thereof (Only plan area to be	Sqm	50.00	172	8,575	226.98	11349.01
for rear side protaction wall common burnt clayFPS, of class/designation 7.5, in foundation and plinth including leveling up with common burnt clayFPS, of class/designation 7.5, in foundation and plinth, with CM 1:4 Providing and laying autoclaved aerated cement blocks masonry with 1 splence and up to floor vivelevel with cAC blocks in superstructure above plinth level upth pfloor V, level with roc band at sill level and livel ploor V, level with roc band at sill level and livel with component all complete asper direction of Engineer in Charge. (The payment of RCC band and reinforcement shall be made for seperately).			10.2		structural steel work riveted, bolted or welded in built up sections, trusses or framwd work,including cutting hosting and fixing in position and applying a prime coat of approved	kg	6,850.00	68	4,63,060	89.47	612859.9
for rear side protaction wall common burnt clayFPS, of class/designation 7.5, in foundation and plinth including leveling up with common burnt clayFPS, of class/designation 7.5, in foundation and plinth, with CM 1:4 Providing and laying autoclaved aerated cement blocks masonry with 1 splence and up to floor vivelevel with cAC blocks in superstructure above plinth level upth pfloor V, level with roc band at sill level and livel ploor V, level with roc band at sill level and livel with component all complete asper direction of Engineer in Charge. (The payment of RCC band and reinforcement shall be made for seperately).											
7.1 side protaction side protaction side protaction sum of the protaction wall side protaction sum of the prot	3.00										
7.1.1 Cement mortar 1:6 (1 cement : 6 coarse sand) Random rubble masonry with hard stone in superstructure above plinth level and upto floor five level, including leveling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) at window sills, ceiling level and the like. 7.2.1 Cement mortar 1:6 (1 cement : 6 coarse sand) Brick work with common burnt clayFPS, of class/designation 7.5, in foundation and plinth, with CM 1:4 Providing and laying autoclaved aerated cement blocks masonry with 150mm/230 mm/300mm thick AAC blocks in superstructure above plinth level uptp floor V, level with common burnt clayFPS, of cement blocks laying ploymer modified adhesive mortar all complete asper direction of Engineer in Charge. (The payment of RCC band and reinforcement shall be made for seperately).			7.1	side protaction	foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm						
superstructure above plinth level and upto floor five level, including leveling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) at window sills, celling level and the like. 7.2.1 Cement mortar 1:6 (1 cement : 6 coarse sand) 6.1 Brick work with common burnt clayFPS, of class/designation 7.5, in foundation and plinth, with CM 1:4 Providing and laying autoclaved aerated cement blocks masonry with 150mm/230 mm/300mm thick AAC blocks in superstructure above plinth level uptp floor V, level with roc band at sill level and lintel level with apptroved block laying ploymer modified adhesive mortar all complete asper direction of Engineer in Charge. (The payment of RCC band and reinforcement shall be made for seperately).			7.1.1			Cum	315.00	3,965.85	#########	5,248.80	1653373
6.1 Brick work with common burnt clayFPS, of class/designation 7.5, in foundation and plinth, with CM 1:4 Providing and laying autoclaved aerated cement blocks masonry with 150mm/230 mm/300mm thick AAC blocks in superstructure above plinth level uptp floor V, level with rcc band at sill level and lintel level with apptroved block laying ploymer modified adhesive mortar all complete asper direction of Engineer in Charge. (The payment of RCC band and reinforcement shall be made for seperately).			7.2		superstructure above plinth level and upto floor five level, including leveling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) at						
class/designation 7.5, in foundation and plinth, with CM 1:4 Providing and laying autoclaved aerated cement blocks masonry with 150mm/230 mm/300mm thick AAC blocks in superstructure above plinth level uptp floor V, level with rcc band at sill level and lintel level with apptroved block laying ploymer modified adhesive mortar all complete asper direction of Engineer in Charge. (The payment of RCC band and reinforcement shall be made for seperately). 6.47 Cum			7.2.1		Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	167.00	4,795.15	8,00,790	6,346.38	1059846
Providing and laying autoclaved aerated cement blocks masonry with 150mm/230 mm/300mm thick AAC blocks in superstructure above plinth level uptp floor V, level with rcc band at sill level and lintel level with apptroved block laying ploymer modified adhesive mortar all complete asper direction of Engineer in Charge. (The payment of RCC band and reinforcement shall be made for seperately). Providing and laying autoclaved aerated cement shall several assertion of September 150mm/230 mm/300mm thick AAC blocks in superstructure above plinth rcc band at sill level and lintel level with rcc band at sill level and lintel level with apptroved block laying ploymer modified adhesive mortar all complete asper direction of Engineer in Charge. (The payment of RCC band and reinforcement shall be made for seperately).			6.1		class/designation 7.5, in foundation and plinth,	Cum		4,970			460473.4
4.00 PLASTERING			6.47		Providing and laying autoclaved aerated cement blocks masonry with 150mm/230 mm/300mm thick AAC blocks in superstructure above plinth level uptp floor V, level with rcc band at sill level and lintel level with apptroved block laying ploymer modified adhesive mortar all complete asper direction of Engineer in Charge. (The payment of RCC band and	Cum	584.00	5,687	#######	7,526.88	4395696
	4.00				PLASTERING						

				(i) The plaster shall be of sufficient thickness to fill up all undulations in the surfaces of masonry and to provide a true surface for wall/ceiling plaster. Special care shall be taken to soak the walls before applying the plaster and finishing the surface of plaster to ensure uniform texture and free from air cracks. Before starting the work sufficient Number of button marks shall be done to plumb and level to achieve uniform finish						
				(ii) All external windows shall be finished to slope outwards and not less than 1 in 48. The exterior shall be finished as per sample approved, by wooden float but the interior shall be as per sample finished smooth.						
				(iii) Plastering to be done either vertical face, horizontal face or angular face. Rate shall include circular /semicircular or any other shape of the faces of plastering area. (iv) External plastering works to be inclusive of						
				addition of integral waterproofing compound of approved make with 100 % virgin polypropylene fibrillated fibers of approved make						
				 (v) The contractor shall make good all the grooves, pockets etc. after the scaffolding is removed. (vi) The rate for all types of plaster given below 						
				should be inclusive of the following items						
				(a) Providing PVC fiber mesh, over lapping to a width of 150 mm at the junctions of masonry and concrete works on either side and including tying in position by using suitable nails / clamps / screws and as directed etc. complete at all levels						
				(b) Forming of drip mould / bands , grooves of sizes as required etc,. wherever grooves are to be provided horizontally/ vertically for in						
				accordance with the drawings. (c) Cost of all material and labour (d) Hacking concrete surfaces to be plastered						
				or rendered (e) Preparation of surfaces by raking out joints,						
				wetting the surface etc., (f) Work at all heights, levels and situations.						
				(g) Washing floors, cleaning glass and leaving premises clean and tidy after the plastering is done. Disposing off the debris outside the site						
				(h) Curing the same. (i) Providing necessary scaffolding, ladder,						
				platform for any height and depth and removing the same after the work is completed						
				(j) Neat finishing of junctions of plaster and skirting						
				(k) Screening and washing approved fine aggregates						
	Internal Plaster- rough	13.4.1	Toilet internal wall	Providing and applying in one coat, 12mm thick plaster on internal surfaces of RCC / brick/block walls in cement mortar 1:4,	SQM	537.00	180.85	97,116	239.35	128533.6
	Internal Plaster- smooth	13.4.2	All internal wall, excluding toilet	Providing and applying in one coat, 12mm thick plaster on internal surfaces of RCC / brick/block walls in cement mortar 1:6, .	Sqm	3,390.00	168	5,70,368	222.68	754881.4
	External sand faced plaster	13.12	All external wall, staircase soffit	Providing and laying 18mm thick cement plaster in two coats, under layer 12 mm thik in CM 1:5 and finished with top layer 6 mmthick in CM 1:3 (I cement: 3 coarse sand) finished rough with snange	Sqm	1,368.00	272	3,72,164	360.06	492559.6
5.00				WATER PROOFING				-	-	0
0.00				Terrace Water Proofing: Providing and laying water treatment on roof of slab by applying cement slurry mixed with watre proof cement compound consist of applying the following:				-	-	0
	l	I	I	I						

UG Tank internal waterproof ing	22.23.1 22.23.2	synthatic fibre brush. The matrial shall meet the requirements as specified in ACI-212-3R-2010 ie by redusing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistance to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self healing cracks upto a width of 0.50 mm. The work shall be carried out all complete as per specifications and directions of Engineer in charge. The product perormance shall carry gaurantee for 10 years for any kind of leakage. For vertical surfaces 2 coats @ 0.70 kg/sqm per coat For horizontal surfaces 1 coat @ 1.10 kg/sqm TOTAL OF WATER PROOFING		204.00	468 362	95,492 35,148 	619.53 479.57 -	126384.2 46518.31 0 0
OH Tank /		Providing and laying integral crystalline slurry of hydrophilic in nature for water proof tretament of RCC structures like retaining walls of basement, water tanks, roof slabs, podium, reservoirs, etc prepared by mixing in the ratio 5:2 (5 parts integral crystalline slurry and 2 parts water) water vertical surgfaces and 3:1 (3 parts integral crystalline slurry and 1 part water) for horizontalsurfaces and applying the same from negative side(internal) with the lelp of						
	22.5	for 4 hours b) Second layer of slurry of cement @ .242 kg/sqm mixed with water proof cement compound @ .126 kg/sqm. This layer will be allowed to air cure for 4 hours followed by water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all the joints, coners and junctions of pipes and	Sqm	318.00	298	94,859	394.80	125546.4
proofing sunk		applying cement sturry mixed with water proof cement compound consisting of applyin: a) First layer of slurry of cement at .488 kg/sqm mixed with watre proof cement compound @ .253 kg/sqm This layer will be allowed o air cure				-	-	0
Toilet water	22.6	Terrace Waterproofing Providing ald layin Water proofing treatment in sunken portion of WC,bathroom etc, by	sqm	535.00	395.00	2,11,325	522.78	279688.6 0
		d) 4th and final layer of brick tiling and cement mortar that shall be paid seperatly. For trhe purpose of measurement entre treated area shall be taken for measurement.				-	-	0
		b) Layng second layer of fibre glasscloth when the first layer is still green. Overlaps of fibre class cloth shall not be less than 10 cm. c) Third layer of 1.5 mm thickness consisting of slurry of cement @ 1.289 kg/sqm mixed with water proof cement compound @ . 670 kg/sqm and coarse sand @ 1.289 kg/sqm. This will be allowed to air cure for 4 hours followed by water curing for 48 hours. This entire treatment will be taken upto 30 cm on parapet all around and tucked into groove into parapat all around.				-	-	0
		a) After surface preparation, First layer of slurry of cement at .488 kg/sqm mixed with watre proof cement compound @ .253 kg/sqm This layer will be allowed o air cure for 4 hours.				-	-	0

		13.41.1		new work (over two or more coates) and including water thinnable priming coat with	sqm	3,780.00	94	3,54,186	124.01	468765.2
				cement primer.	•	,				
7.00				FLOORING, SKIRTING AND CLADDING						
	Kotah stone slab flooring	11.26.1	Corridors, entrance lobbey starcse landings etc,	Kotah stone slab, flooring ver 20 mm average Thick base laid overand jointed with grey cement slurry mixed with pigment to match theshade of the slab, inluding rubbing and polishing complete with base of cement mortar 1:4 (1 cement : 4 coarse sand). 25 mm thick	Sqm	760.00	1,158.10	8,80,156	1,532.75	1164886
		11.27	Risers, dado , skirting etc	Kotah stone slab, 20 mm thick, in risers of steps, skirting, dado, pillars laid over 12 mm average thick mortar of mix 1:3 (1 part cement : 3 part coarse sand)laid overand jointed with grey cement lurry mixed with pigment to match theshade of the slab, inluding rubbing and policing complete.	Sqm	99.00	1,238	1,22,582	1,638.76	162237
	Anti-skid Vitrified tile floor	11.41.2	Washroom s, pantry	Providing and layin vitrified flor tiles in different sizes(thickness to be specified by manufacturer)with bwater absorption less then 0.08% nad conforming o IS 15622, of approved make and all color and shades, laid on 20 mm thick cement mortar of mix 1:4(1 cement: 4 coarse sand)joining with grey cement slurry& 3.3 kg per sqm including grouting the joints with white cementand matchin pigments etc complete. (Tile size 600 mm x 600mm)						
				All floors	Sqm	145.00	1,119	1,62,313	1,481.53	214821.3
	Ceramic Tile Dado on cement mortar		Washroom walls, and other vertical surfaces as instructed ny EinC	Providing and laying first quality ceramic glazed tiles conforming to IS15622(thickness to be specified by the manufacturer)of approved make and color,(except burgendy, bottle green or black) and sizes as instructed by EiC,in skirting, rizers or dadao, over 12 mm thick bed of cement mortar1:3, (1 cement: 3 coarse sand) and jointing with grey cement slurry@ 3.3kg/sqm including pointing with white cement and matching with pigment of matching shade						
		11.36		All floors	Sqm	477.00	745	3,55,270	985.74	470199.3
	Vitried tile flooring			Providing and laying vitrified floor tiles in different sizes(thickness to be specified by manufacturer)with bwater absorption less then 0.08% nad conforming o IS 15622, of approved make and all color and shades, laid on 20 mm thick cement mortar of mix 1:4(1 cement : 4 coarse sand)joining with grey cement slurry& 3.3 kg per sqm including grouting the joints with white cementand matchin pigments etc complete. (Tile size 600 mm x 600 mm)						
		11.41.2		All Floors	SQm	825.00	1,119	9,23,505	1,481.53	1222259
	Window frame			18 mm thick granite on window sills/facias/fra	ames				-	
		8.2.2.2		All floors	SQM	105.00	3,113	3,26,897	4,120.45	432647.5
8.00				DOORS						
		9.1		Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for senarately)						
	Wooden Frames	9.1.1		Second class teak wood	Cum	3.53	########	3,27,383	#######	433291.4
	Glazed Door	9.2		Providing and fixing ISI marked flush door shutters conforming to IS: 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers an both faces of shutters.						
		9.20.1		35 mm thick including ISI marked Stainless	sqm	131.00	2,489	3,26,052	3,294.13	431530.4
	Solid core shutter in Laminate on both sides	9.24		Steel butt hinges with necessary screws Extra for providing vision panel not exceeding 0.1 sqm in all type of flush doors (cost of glass excluded) (overall area of door shutter to be measured):	эчп	101.00	2,403	0,20,002	0,20 1 .10	701000.4

		9.24.1	Rectangular or square	sqm	42.00	162.60	6,829	215.20	9038.446
		9.25	Extra if louvers (not exceeding 0.2 sqm) are provided in flush door shutters (overall area of door shutters to be measured). (electric and	sqm	15.00	377.50	5,663	499.62	7494.319
		9.72	battev room) Providing and fixing bright finished brass butt						
			hinges with necessary screws etc. complete :						
		9.72.1	125x85x5.5 mm (heavy type) Providing and fixing bright finished brass tower	Each	200.00	205.95	41,190	272.57	54514.97
		9.74	bolts (barrel type) with necessary screws etc.						
		9.74.1	250x10mm Providing and fixing bright finished brass	each	50.00	313.20	15,660	414.52	20726.01
		9.81.1	handles with screws etc. complete: Providing and fixing bright finished brass	each	100.00	171.20	17,120	226.58	22658.32
		9.82	hanging type floor door stopper with necessary screws, etc. complete	each	50.00	85.85	4,293	113.62	5681.124
		9.83	Providing and fixing aluminium die cast body tubular type universal hydraulic door closer (having brand logo with ISI, IS: 3564,embosse on the body, door weight upto 35 kg and door width upto 700 mm), with necessary accessories and screws etc. complete.	d each	50.00	414.45	20,723	548.52	27426.23
		9.53	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embedding in cement concrete block 30x10x15cm 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominals (20x)	each	200.00	118.60	23,720	156.97	31393.42
9.00			WINDOWS AND GLASS WORK						
	Aluminum windows, heavy duty, sliding, 4- track, with additional mosquito track as per sizes		Providing and fixing aluminium work for door, windows, ventilators with extruded build up standard tublar sections/Z sections or other sections of approved makeconforming to IS 73 and IS1285 fixin with dash fastners of required dia and size including necessary filling up of gaps at junctions at top bottom and sides with required EPDM rubber/neoprene gasketetc. Aluminum sections will be smooth, rust free, straingh and miteredand jointed mechanically wherever required including cleet angle., alunium snap beading for glass/ panels, cp brass/SS screws all complete as per architectural drawings and the diterection of Eli (Glazing, panalling and beading to be paid seperately).						
		21.1.1.2	For fixed panels, Powder coated md minimur 50 microns	n KG	233.00	385	89,589	508.89	118570.4
		21.1.2.2	For shutters of doors, windows, ventilators powder coated minimum 50 microns	, KG	485.00	445	2,15,777	588.83	285580.2
		21.3	Providing and fixing glazing in aluminum doo window, ventilator shutters and partitins etc wit EPDM rubber/ neoprene gasket etc complet as per architectural design and the ditections of EIC.	h e					
		21.3.1	With float glass panes of 5.5 mm thick	sqm	132.00	1,004	1,32,521	1,328.73	175392.1
10.00			RAILINGS						
	SS Rail along walls	10.28	Providing and fixing stainless steel (Grade 304 railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners, stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-incharge, (for paymer				-		
			purpose only weight of stainless steel members shall be considered excluding fixing accessorie such as nuts, bolts, fasteners etc.).						
		10.28	purpose only weight of stainless steel members shall be considered excluding fixing accessorie		498.00	472	2,35,255	625.22	3,11,360

	16.1	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth with lead upto 50		1,300.00	90	1,17,130	119	1,55,022
	16.2	Extra for compaction of earth work in embankment under optimum moisture conditions to give at least 95% of the maximum dry density (proctor density).	Cum	260.00	11	2,782	14	3,682
	16.5	Laying water bound macadam sub-base with brick aggregate and binding material, earth etc. including screening, sorting and spreading to template and consolidation with light power road roller etc. complete.(payment for brick aggregate and moorum etc. to be made						
	16.5.1	Over burnt (Jhama) brick aggregate 120 mm to	4 cum	260.00	363	94,445	481	1,24,998
	16.5.2	Over burnt (Jhama) brick aggregate 90 mm to	cum	260.00	363	94,445	481	1,24,998
	16.25	45 mm Surface dressing on new surface with paving bitumen of grade VG - 10 of approved quality using 2.25 kg of bitumen per sqm with 1.65 cum of stone chippings 13.2 mm nominal size per 100 sqm of road surface, including consolidation with road roller of 6 to 8 tonne	Sqm	1,300.00	140	1,81,480	184.76	2,40,189
	16.68	Providing and laying 60mm thick faciory made cement concrete interlocking paver block of M - 30 grade made by block making machine with strong vibratory compaction, of approved s;ze, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge	sqm	220.00	616	1,35,454	814.88	1,79,273
			-					
12.00		MISCELLANEOUS						
	26.8	Under Deck Insulation :26.8 Providing and fixing 50 mm thick extruded polystyrene rigid insulationboard of required size underdeck on ceiling surface complying with ISO 4898:2008 & ASTM C 578-08b - type VI having thermal conductivity of 0.0289 W/m K as per ASTM C 578 (measured as per IS 3346), compressive strength of > 350 kPa listed as per ASTM D 1621, density of 34-36 kg/m³ as per ASTM D 1622 water absorption < 1% by volume as per ASTM D 2842, oxygen index of 24.1 to 28.1 listed as per ASTM D 2863, cell size 0.4 mm of dia (max) as per ASTM D 3576. Fire retardent property as per DIN 4102, Part 1 of class B2 and as per ASTM E84 class A, fixed with suitable water based adhesive and fastener, complete in all respectas per the directions of Engineer-in-Charge, som 685.75	st , , , Sqm	436.00	686	2,98,987	907.59	3,95,709
		STRUCTURAL GLAZING & ACP WORK	1					
	25.1	Providing and supplying aluminium extruded tubular and other aluminium sections as per the architectural drawings and approved shop drawings, the aluminium quality as per grade 6063 T5 or T6 as per BS 1474,including super durable powder coating of 60-80 microns conforming to AAMA 2604 of required colour and shade as approved by the Engineer-in-Charge. (The item includes cost of material such as cleats, sleeves, screws etc. necessary	kg	440.00	338.25	1,48,830	447.67	1,51,426

		T						
		Designing, fabricating, testing, protection, installing and fixing in position semi (grid) unitized system of structural glazing (with open joints) for linear as well as curvilinear portions of the building for all heights and all levels, including:						
	25.3	Providing, assembling and supplying vision glass panels (IGUs) comprising of hermetically-sealed 6-12- 6 mm insulated glass (double glazed) vision panel units of size and shape as required and specified, comprising of an outer heat strengthened float glass 6 mm thick, o approved colour and shade with reflective soft coating on surface # 2 of approved colour and shade, an inner Heat strengthned clear float glass 6 mm thick, spacer tube 12mm wide, dessicants, including primary seal and secondary seal (structural silicone sealant) etc. all complete for the required performances, as per the Architectural drawings, as per the approved shop drawings, as specified and as directed by the Engineer-in	sqm	105.00	3730.7	3,91,724	4937.581	5,18,446
	25.4	Extra for openable side / top hung vision glass panels ((GUs) including providing and supplying at site all accessories and hardwares for the openable panels as specified and of the approved make such as heavy duty stainless steel friction hinges, min 4 -point cremone locking sets with stainless steel plates, handles, buffers etc. including necessary stainless steel screws/fasteners, nuts, bolts, washers etc. all complete as per the Architectural drawings, as per the approved shop drawings, as specified and as directed by the Engineer-	sqm	20.00	2941.6	58,832	3893.208	77,864
	25.7	Designing, fabricating, testing, installing and fixing in position Curtain Wall with Aluminium Composite Panel Cladding, with open grooves for linear as well as curvilinear portions of the building, for all heights and all levels etc. including:						
		(a) Structural analysis & design and preparation of shop drawings for pressure equalisation or rain screen principle as required, proper drainage of water to make it watertight including checking of all the structural and functional design.						
		(b) Providing, fabricating and supplying and fixing panels of aluminium composite panel cladding in pan shape in metallic colour of approved shades made out of 4mm thick aluminium composite panel material consisting of 3mm thick FR grade mineral core sandwiched between two Aluminium sheets (each 0.5mm thick). The aluminium composite panel cladding sheetshall be coil coated, with Kynar 500 based PVDF / Lumiflon based fluoropolymer resin coating of approved colour and shade on face # 1 and polymer (Service) coating on face # as specified using stainless steel screws, nuts, bolts, washers, cleats, weather silicone sealant, backer rods etc.						
		(c) The fastening brackets of Aluminium alloy 6005 T5 / MS with Hot Dip Galvanised with serrations and serrated washers to oad movement, fasteners, SS 316 Pins and anchor bolts of approved make in SS 316 Nylon separators to prevent bi-metallic contacts all complete required to perform as per specification and drawing The tetm includes cost of all material & labour component, the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working curtain wall with aluminium composite panel cladding till the handing over of the building for occupation. Base frame work for ACP cladding is payable under the relevant aluminium item.s The Contractor shall provide curtain wall with aluminium composite panel cladding, having all the performance characteristics all complete, as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineer in-Charge. However, for the purpose of payment, only the actual area on the external face of the curtain wall with Aluminum Composite Panel Cladding (including width of groove) shall be measured in sqm. up to two decimal places."						
	25.7	ACP cladding	sqm	32.00	3405.9	1,08,989	4507.709	1,44,247
						########		########

S.No.	DSR RefNo	Item Description	Unit	Quantity	Rate	Amount
	2018	FIRE ALARM SYSTEM				
		Supplying, installation, testing and commissioning of micro-processor				
		based intelligent addressable main fire alarm panel, central processing				
		unit with the following loopmodules and capable of supporting not less				
		than 240 devices (including detectors) and minimum 120 detectors per				
		loop and loop length up to 2 km, network communication				
		card,minimum 320 character graphics/ LCD display with touch screen				
		or other keypad and minimum 4000 events history log in the non				
		volatile memory (EPROM), power supply unit (230± 5% V, 50 hz), 48 hrs				
1		back-up with 24 volt sealed maintenance free batteries with automatic				
•		'				
		charger. The panel shall have facility to connect printer to printout log				
		and facility to have seamless integration with analog/digital				
		voiceevacuation system (which is part of the schedule of work under				
		SH: PA System) and shall be complete with all accessories . The panel				
		shall be compatible for IBMS system with open protocol BACnet/				
		Modbus over IP complete as perspecifications.				
	1701					
2	17.2.1. 17.2.1.2	Two Loop Panel.	each	1	238907	23890
	17.2.1.2	TWO ECOPT UNC.	Cuon		200007	20000
		Supplying, installation, testing & commissioning of smokedetector with				
3		builtin LED and mounting base complete with allconnections etc. as				
_	17.1.2	required.	each	45	1141	5134
		Supplying, installation, testing & commissioning of				
4		intelligentaddressablethermal detector withrate of rise cum fixed				
	17.2.9	tempreature thermistor complete with base as required.	each	3	2713	813
		Supplying, installation, testing & commissioning ofaddressable beam				
_		detector with short circuit isolator (inbuiltor seperate) complete with				
5		emitter and receiver including connections with remote test features				
	17.2.12	letc complete as	each	1	74778	7477
		Supplying, installation, testing & commissioning of addressable manual		1 1		, , , , ,
6		call point complete as required.	each	3	3859	1157
		Supplying, installation, testing & commissioning of fault isolator	20011	+ +	3000	1107
7		complete with base as required.	each	1	3257	325
	11.2.1	Supply, Installation, Testing & Commisioning of Analogue		+ '-	0207	020
8		Addressable Intelligent UV Flame detector with base as per				
0		specification	each	3	4000	12000
		Supplying, installation, testing & commissioning ofaddressable horn		+ +	4000	1200
9		cum strobe complete as required.	each	3	3494	1048
	17.2.10	Supplying & laying of 2x1.5 sqmm fire alarm armoured cable,	- 40	+ +	0.04	10 10
		600/1000V rated with annealed copper conductor having XLPE				
10		insulation, steel wire armouring & FRLS outer sheath complete as				
			m atau	040	1.11	10054
	17.5.2	required.	meter	940	141	13254
						(
	DSR & AOR 19	FIRE PROTACTION SYSTEM		<u> </u>		(
		Providing, laying, testing and commissioning of C class heavy				
		duty MS pipe conforming to IS 3589/IS 1239 including welding,				
		fitting like elbows, tees, flanges, tapers, nuts bolts, gaskets etc				
1		and fixing the pipe on the wall/ceiling with suitable clamp/support				
		frame and painting with two or more coats of synthatic enamel				
		paint of required shade complete as required.				
	74	25 mm dia	Motro	000	171	10100
		25 mm dia 80mm dia	Metre Metre	280	471 1122	13188 6732
		100mm dia	Metre	40	1499	5996
	7.7	Tooliiii dia	IVICLIC	40	1433	3990
		Supplying and fixing single headed internal hydrant valve with				
		instantaneous Gunmetal/Stainles Steel coupling of 63 mm dia				
		with cast iron wheel ISI marked conforming to IS 5290 (Type -A)				
		with blank Gunmetal/Stainles steel cap and chain as required :				
3	9.1	Single headed gunmetal	Set	3	7494	2248
		Cinale bonded stainless stael	Set	1	5987	598
	9.2	Single headed stainless steel	Set	' '	3307	390

, 1		Providing, fixing, testing and commissioning of butterflyvalve of				
4		PN 1.6 rating with bronze/gunmetal seat duly ISI marked				
		complete with nuts, bolts, washers, gaskets conforming to IS				_
		13095 of following sizes as required :				(
		80mm nominal bore	Set	8	4842	38736
	11.5	100mm nominal bore	Set	4	6454	25816
						(
						(
		Providing installation testing and commissioning of non-return				
5		valve of following sizes conforming to IS 5312 complete with				
	14	rubber gasket, GI bolts, nuts washers etc as required :				(
	14.4	80 mm dia	Set	8	7539	60312
	14.5	100 mm dia	Set	4	10836	43344
						0
		Providing installation testing and commissioning of stainless steel				
		Y - strainer fabricated out of 1.6 mm thick stainless steel Grade				
	15	304, sheet with 3 mm dia holes withstainless steel flange.				0
	15.1	80 mm dia	set	4	4573	18292
	15.2	100 mm dia	set	2	6450	12900
						0
		Suppying and fixing 63 mm dia, 15 meter long RRL hose pipe				
		with 63 mm dia male and female couplings duly bound with GI				
	17	wire, rivet etcconforming to IS 636 (Type A) as required :				0
		20 mnominal internal dia water hose thermoplastic(testile				
	1	reinforced) type - 2, as per IS: 2585				0
	İ	20 mm nominal internal dia gun metal globe valve and nozzel.				0
		Drum and brackets for fixing the equipmt on wall				0
		Connections from riser with 25 mm dia stop gun metal valve &				
		NS pipe and socket				0
	17 1	30 m	set	2	8413	16826
	17.1	00 111	301		0410	10020
		Supplying and fixing63 mm dia gun metal short branch pipe with				
		20 mm nominal internaldiameter size nozzle conforming to IS 903				
		suitable for instantaneous connection to interconnect his pipe				
	10	coupling as required:				0
\longrightarrow		Gun metal	Set	2	8413	16926
		Stainless steel (garde 304)	Set	1	10092	16826 10092
\longrightarrow	10.2	Starriess steer (garde 504)	Set	'	10092	10092
		Cumplying and fixing of fire brigade connection of east iron body				
		Supplying and fixing of fire brigade connection of cast iron body				0
		with gun metal male instantaneous inlet coupling complete with				<u> </u>
	40	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection				0
		with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required:			0500	0
		with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection		2	6590	0 13180
		with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe	set	2	6590	
	19.1	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe Providing fixing testing and commissioning of 15 mm dia	set	2	6590	
6	19.1	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe Providing fixing testing and commissioning of 15 mm dia quartzoid bulb type splinkars of rating 68 degree centigrade with	set	2	6590	
6	19.1	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe Providing fixing testing and commissioning of 15 mm dia quartzoid bulb type splinkars of rating 68 degree centigrade with required accessories:	set			0
6	19.1 21 21.1	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe Providing fixing testing and commissioning of 15 mm dia quartzoid bulb type splinkars of rating 68 degree centigrade with required accessories: Pendent Splinkar	set	60	484	0 0 29040
6	21 21.1 21.2	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe Providing fixing testing and commissioning of 15 mm dia quartzoid bulb type splinkars of rating 68 degree centigrade with required accessories: Pendent Splinkar Upright Splinkar	set	60	484 484	0 0 29040 2904
6	21 21.1 21.2	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe Providing fixing testing and commissioning of 15 mm dia quartzoid bulb type splinkars of rating 68 degree centigrade with required accessories: Pendent Splinkar	set	60	484	0 29040 2904 1737
6	21 21.1 21.2	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe Providing fixing testing and commissioning of 15 mm dia quartzoid bulb type splinkars of rating 68 degree centigrade with required accessories: Pendent Splinkar Upright Splinkar	set	60	484 484	0 29040 2904 1737 0
6	21 21.1 21.2	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe Providing fixing testing and commissioning of 15 mm dia quartzoid bulb type splinkars of rating 68 degree centigrade with required accessories: Pendent Splinkar Upright Splinkar Horizontal side wall splinkar	Each Each Each	60	484 484	0 29040 2904 1737 0
6	21 21.1 21.2 21.3	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe Providing fixing testing and commissioning of 15 mm dia quartzoid bulb type splinkars of rating 68 degree centigrade with required accessories: Pendent Splinkar Upright Splinkar Horizontal side wall splinkar Providing& Fixing of pressure switch in MS pipe line including	Each Each Each	60 6 3	484 484 579	0 29040 2904 1737 0
6	21 21.1 21.2 21.3	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe Providing fixing testing and commissioning of 15 mm dia quartzoid bulb type splinkars of rating 68 degree centigrade with required accessories: Pendent Splinkar Upright Splinkar Horizontal side wall splinkar Providing& Fixing of pressure switch in MS pipe line including connection as required	Each Each Each Each	60	484 484	0 29040 2904 1737 0
6	21 21.1 21.2 21.3	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe Providing fixing testing and commissioning of 15 mm dia quartzoid bulb type splinkars of rating 68 degree centigrade with required accessories: Pendent Splinkar Upright Splinkar Horizontal side wall splinkar Providing& Fixing of pressure switch in MS pipe line including connection as required Providing& Fixing flow switch in following sizes MS pipe line	Each Each Each Each	60 6 3	484 484 579	0 29040 2904 1737 0
6	21 21.1 21.2 21.3 21.3	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe Providing fixing testing and commissioning of 15 mm dia quartzoid bulb type splinkars of rating 68 degree centigrade with required accessories: Pendent Splinkar Upright Splinkar Horizontal side wall splinkar Providing& Fixing of pressure switch in MS pipe line including connection as required Providing& Fixing flow switch in following sizes MS pipe line including connection as required	Each Each Each Each	60 6 3	484 484 579	0 29040 2904 1737 0 0 4524
6	21 21.1 21.2 21.3 21.3	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe Providing fixing testing and commissioning of 15 mm dia quartzoid bulb type splinkars of rating 68 degree centigrade with required accessories: Pendent Splinkar Upright Splinkar Horizontal side wall splinkar Providing& Fixing of pressure switch in MS pipe line including connection as required Providing& Fixing flow switch in following sizes MS pipe line	Each Each Each Each	60 6 3	484 484 579	0 29040 2904 1737 0 0 4524
6	21 21.1 21.2 21.3 21.3	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe Providing fixing testing and commissioning of 15 mm dia quartzoid bulb type splinkars of rating 68 degree centigrade with required accessories: Pendent Splinkar Upright Splinkar Horizontal side wall splinkar Providing& Fixing of pressure switch in MS pipe line including connection as required Providing& Fixing flow switch in following sizes MS pipe line including connection as required	Each Each Each Each	60 6 3	484 484 579	0 29040 2904 1737
6	21 21.1 21.2 21.3 21.3	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe Providing fixing testing and commissioning of 15 mm dia quartzoid bulb type splinkars of rating 68 degree centigrade with required accessories: Pendent Splinkar Upright Splinkar Horizontal side wall splinkar Providing& Fixing of pressure switch in MS pipe line including connection as required Providing& Fixing flow switch in following sizes MS pipe line including connection as required 100 mm dia	Each Each Each Each Each	60 6 3	484 484 579	0 29040 2904 1737 0 0 4524
6	21 21.1 21.2 21.3 21.3	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe Providing fixing testing and commissioning of 15 mm dia quartzoid bulb type splinkars of rating 68 degree centigrade with required accessories: Pendent Splinkar Upright Splinkar Horizontal side wall splinkar Providing& Fixing of pressure switch in MS pipe line including connection as required Providing& Fixing flow switch in following sizes MS pipe line including connection as required 100 mm dia Providing fixing tresting and commissioning of installation control	Each Each Each Each Each	60 6 3	484 484 579	0 29040 2904 1737 0 0 4524
6	21 21.1 21.2 21.3 21.3	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe Providing fixing testing and commissioning of 15 mm dia quartzoid bulb type splinkars of rating 68 degree centigrade with required accessories: Pendent Splinkar Upright Splinkar Horizontal side wall splinkar Providing& Fixing of pressure switch in MS pipe line including connection as required Providing& Fixing flow switch in following sizes MS pipe line including connection as required 100 mm dia Providing fixing tresting and commissioning of installation control valve of cast iron body, brass/bronze working parts comprising of	Each Each Each Each Each	60 6 3	484 484 579	0 29040 2904 1737 0 0 4524
6	21 21.1 21.2 21.3 21.3	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe Providing fixing testing and commissioning of 15 mm dia quartzoid bulb type splinkars of rating 68 degree centigrade with required accessories: Pendent Splinkar Upright Splinkar Horizontal side wall splinkar Providing& Fixing of pressure switch in MS pipe line including connection as required Providing& Fixing flow switch in following sizes MS pipe line including connection as required 100 mm dia Providing fixing tresting and commissioning of installation control valve of cast iron body, brass/bronze working parts comprising of water motor alarm, bronze seat clapper, clapper arm and	Each Each Each Each Each	60 6 3	484 484 579	0 29040 2904 1737 0 0 4524
6	21 21.1 21.2 21.3 21.3	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe Providing fixing testing and commissioning of 15 mm dia quartzoid bulb type splinkars of rating 68 degree centigrade with required accessories: Pendent Splinkar Upright Splinkar Horizontal side wall splinkar Providing& Fixing of pressure switch in MS pipe line including connection as required Providing& Fixing flow switch in following sizes MS pipe line including connection as required 100 mm dia Providing fixing tresting and commissioning of installation control valve of cast iron body, brass/bronze working parts comprising of water motor alarm, bronze seat clapper, clapper arm and hydraulically driven mechanical gong bell to sound continuous	Each Each Each Each	60 6 3	484 484 579	0 29040 2904 1737 0 0 4524
6	21 21.1 21.2 21.3 21.3	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe Providing fixing testing and commissioning of 15 mm dia quartzoid bulb type splinkars of rating 68 degree centigrade with required accessories: Pendent Splinkar Upright Splinkar Horizontal side wall splinkar Providing& Fixing of pressure switch in MS pipe line including connection as required Providing& Fixing flow switch in following sizes MS pipe line including connection as required 100 mm dia Providing fixing tresting and commissioning of installation control valve of cast iron body, brass/bronze working parts comprising of water motor alarm, bronze seat clapper, clapper arm and hydraulically driven mechanical gong bell to sound continuous alarm when the wet riser/splinkar system activates, pressure	Each Each Each Each Each	60 6 3	484 484 579	0 29040 2904 1737 0 0 4524
6	21 21.1 21.2 21.3 21.3	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe Providing fixing testing and commissioning of 15 mm dia quartzoid bulb type splinkars of rating 68 degree centigrade with required accessories: Pendent Splinkar Upright Splinkar Horizontal side wall splinkar Providing& Fixing of pressure switch in MS pipe line including connection as required Providing& Fixing flow switch in following sizes MS pipe line including connection as required 100 mm dia Providing fixing tresting and commissioning of installation control valve of cast iron body, brass/bronze working parts comprising of water motor alarm, bronze seat clapper, clapper arm and hydraulically driven mechanical gong bell to sound continuous alarm when the wet riser/splinkar system activates, pressure gauges, emergency releases, strainer, pressure switch, cocl	Each Each Each Each Each	60 6 3	484 484 579	0 29040 2904 1737 0 0 4524
6	21 21.1 21.2 21.3 21.3	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe Providing fixing testing and commissioning of 15 mm dia quartzoid bulb type splinkars of rating 68 degree centigrade with required accessories: Pendent Splinkar Upright Splinkar Horizontal side wall splinkar Providing& Fixing of pressure switch in MS pipe line including connection as required Providing& Fixing flow switch in following sizes MS pipe line including connection as required 100 mm dia Providing fixing tresting and commissioning of installation control valve of cast iron body, brass/bronze working parts comprising of water motor alarm, bronze seat clapper, clapper arm and hydraulically driven mechanical gong bell to sound continuous alarm when the wet riser/splinkar system activates, pressure	Each Each Each Each Each	60 6 3	484 484 579	0 29040 2904 1737 0 0 4524
6	21 21.1 21.2 21.3 21.3	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe Providing fixing testing and commissioning of 15 mm dia quartzoid bulb type splinkars of rating 68 degree centigrade with required accessories: Pendent Splinkar Upright Splinkar Horizontal side wall splinkar Providing& Fixing of pressure switch in MS pipe line including connection as required Providing& Fixing flow switch in following sizes MS pipe line including connection as required 100 mm dia Providing fixing tresting and commissioning of installation control valve of cast iron body, brass/bronze working parts comprising of water motor alarm, bronze seat clapper, clapper arm and hydraulically driven mechanical gong bell to sound continuous alarm when the wet riser/splinkar system activates, pressure gauges, emergency releases, strainer, pressure switch, cocl	Each Each Each Each Each	60 6 3	484 484 579	0 29040 2904 1737 0 0 4524
6	21 21.1 21.2 21.3 22 23 23.1	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe Providing fixing testing and commissioning of 15 mm dia quartzoid bulb type splinkars of rating 68 degree centigrade with required accessories: Pendent Splinkar Upright Splinkar Upright Splinkar Horizontal side wall splinkar Providing& Fixing of pressure switch in MS pipe line including connection as required Providing& Fixing flow switch in following sizes MS pipe line including connection as required 100 mm dia Providing fixing tresting and commissioning of installation control valve of cast iron body, brass/bronze working parts comprising of water motor alarm, bronze seat clapper, clapper arm and hydraulically driven mechanical gong bell to sound continuous alarm when the wet riser/splinkar system activates, pressure gauges, emergency releases, strainer, pressure switch, cocl valve complete with drain valve and bypass, trest control box, ball valves, MS pipe of required size, flanges, orifice plate, gasket etc of following sizes as required	Each Each Each Each Each	60 6 3	484 484 579	0 29040 2904 1737 0 0 4524
6	21 21.1 21.2 21.3 22 23 23.1	with gun metal male instantaneous inlet coupling complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS904 as required: 2 way 100 mm dia MS pipe Providing fixing testing and commissioning of 15 mm dia quartzoid bulb type splinkars of rating 68 degree centigrade with required accessories: Pendent Splinkar Upright Splinkar Horizontal side wall splinkar Providing& Fixing of pressure switch in MS pipe line including connection as required Providing& Fixing flow switch in following sizes MS pipe line including connection as required 100 mm dia Providing fixing tresting and commissioning of installation control valve of cast iron body, brass/bronze working parts comprising of water motor alarm, bronze seat clapper, clapper arm and hydraulically driven mechanical gong bell to sound continuous alarm when the wet riser/splinkar system activates, pressure gauges, emergency releases, strainer, pressure switch, cocl valve complete with drain valve and bypass, trest control box, ball valves, MS pipe of required size, flanges, orifice plate, gasket etc.	Each Each Each Each Each	60 6 3	484 484 579	0 29040 2904 1737 0 0 4524

TERRACE FIRE PUMP				
supply installation, testing and commissioning of electric driven terrace pumpwith required 415 volts , 3 phase, 50 Hz subtable DOL starter panel o requiredratingterrace fire pump fr automatic oprtation and consisting of following : complete inall rwspect as required and flow of 90 LPM at 35 M head conforming to IS 1520 Suitable HP SQcage induction motor TEPC type suitable for operation on 415 volts, 3 plhase 50 Hz AC with IP 55 class of protection for enclosure horizontal foot mounted type with class - F insulation, conforming to IS: 325 and suitable rating of electrical control coppercables from electical panal to induction motor.				
MS fabricated common base plate coupling guard foundation bolts etc as required.				
Suitable cement concrete foundation duty plastered with antivibration pads.	Set	1	105110	105110
				1409528

S.No.	Description	Unit	Qty	Rate	AMOUNT
	Supply of Air Cooled VRV OUTDOOR				
	UNIT as per standard manufacturing				
1	specification as per the Nominal capacity				
	mentioned below				
	Make: Daikin				
a	48 HP- out door unit	Nos	1.0	9,88,215	9,88,215
	40 HP - Outdoor Unit	Nos	1.0	783825	7,83,825
2	Indoor Unit- Split				
a	1.06 tr split unit	Nos	8.0	24,180	1,93,440
b	1.5 tr split unit	Nos	3.0	27,340	82,020
С	1.8 tr split unit	Nos	1.0	28,116	28,116
2	Ducted Unit				
а	2.6 tr	Nos	3.0	43,117	1,29,351
b	3 tr	Nos	4.0	45,470	1,81,880
С	5.5 tr	Nos	2.0	84,624	1,69,248
d	8.5 tr	Nos	4.0	95,100	3,80,400
3	Refnet Joint	Nos	34.0	4,100	1,39,400
4	Remote for indoor unit	Nos	25.0	1,410	35,250
	TOTAL BASIC		(IN RS.)		21 11 145
	GST @ 28% extra		(114 (13.)		31,11,145

ANNEXURE: SCHEDULE OF ANCILLARY WORK & PRICES

S.No.	Description	Unit	Qty.	RATE	AMOUNT
1	Lifting , Shifting , Installation, testing & Commissioning of unitscondensing units with NITROGEN GAS Pressure testing, Flushing of the system , as per Industry Standards				

а	88 hp- out door unit	Nos	1.0	1,42,370	1,42,370
	Installation of Indoor Unit				
2					
b	Split Unit	Nos	12.0	1,945	23,340
С	Ducted unit	NI	7.0	2.005	27.405
	2.6 tr, 3 tr 5.5 tr	Nos	7.0 2.0	3,885	27,195
	8.5 tr	Nos	2.0	4,565	9,130
	6.5 ti	Nos	4.0	7,650	30,600
2	Supply and Installation of HARD copper pipe with Nitrile sleeve Insulation for Condensing				
	41.3 mm OD (insulation 19 mm)	RMT	0.0		0
	34.9 mm OD (insulation 19 mm)	RMT	0.0		0
	31.8 mm OD (insulation 19 mm)	RMT	10.0	1,490	14,900
	28.6 mm OD (insulation 19 mm)	RMT	15.0	1,400	21,000
	22.2 mm OD (insulation 13 mm)	RMT	25.0	1,050	26,250
	19.1 mm OD (insulation 13 mm)	RMT	80.0	905	72,400
	15.9 mm OD (insulation 13 mm)	RMT	45.0	1,060	47,700
	12.7 mm OD (insulation 13 mm)	RMT	50.0	550	27,500
	09.5 mm OD (insulation 13 mm)	RMT	60.0	530	31,800
	06.4 mm OD (insulation 13 mm)	RMT	80.0	400	32,000
3	DRAIN : make -supreme				
	Supply & installation of PVC drain piping and	Rmt	125.0	245	30,625
4	OUTDOOR UNIT STANDS				
а	Supply and Fixing of MS Enamel painted	Nos	4.0	4,530	18,120

		1	1	T	T
5	ELECTRICAL CABLE				
	Control cabling between lindoor unit to outdoor unit	Rmt	500.0		
6	Communication Cable	Rmt	500.0	165	82,500
7	Gas Charging of Whole System	L/s	1.0	52,800	52,800
8	sheet metal ducting 24 gauge	Sqmtr	300	880	2,64,000
9	sheet metal ducting with design 22 gauge	Sqmtr	25	970	24,250
10	Duct insulation with nitrile rubber 6mm thick	Sqmtr	300	560	1,68,000
11	Duct linning 25 mm thick with glass wool and aluminium mesh	Sqmtr	25	535	13,375
12	Supply air grill	Sqmtr	12	7115	85,380
13	Canvass connection	nos	13	1940	25,220
	Total without GST				12,70,455
	Total for supply	T			31,11,145
	Total for execution				12,70,455

Total for HVAC works 43,81,600

Solar Power System

S.No.	Description	Unit	Quantity	Rate	Amount
	Design, manufacturing, supply, installation,				
	testing and comissioning of Grid tied solar				
	Photo Voltic Power plant, at rooftop, co				
	capacity 10 kw generationcapacity using Grid				
	Tie Invertor of 10 KW, Solar PV modules 100				
	sqm panals, monted on MS frame structure				
	suitable fixed to the roof top slab, including				
	1 cabling wiring all complete	Job	1	1 7,50,000	7,50,000

GST extra as applicable.

S No.	Equipment	Quantity	Make
	Solar PV Modules		Vikram
			Solar,
			Tata
			Solar,
			Trina
1		100 sqm	Solar
			Schneider,
2	Grid Tie Invertor	10 KW	France
	1c x 6 sq mm PVC Cu Cable(arrey	600 meters	600
3	interconnection and to invertor		meters
4	AC cables of appropriate rating.f	240 meter	240 meter
	DCB/ACDB	1	ABB,
			SCHNEID
			ER,L&T