E-TENDER DOCUMENT



CHAUDHARY RANBIR SINGH UNIVERSITY, JIND

STANDARD BIDDING DOCUMENT (E-TENDER)

FOR

PROVIDING AND FIXING OF FIXTURES AND GAS DISTRIBUTION SYSTEM FOR ACADEMIC BLOCK-II AT CHAUDHARY RANBIR SINGH UNIVERSITY, JIND ON TURN-KEY BASIS

Tender No.:

Name of Work: Providing and Fixing of Fixtures and Gas Distribution System for Academic Block-II at Chaudhary Ranbir Singh University, Jind on Turn-Key Basis.

TABLE OF CONTENTS

NAME OF CONTENTS	PAGE NO.
INVITATION FOR BIDS	
E-Tender Notice	3
Detailed Notice Inviting Tender	4
SECTION-1	8
Instructions to Bidders (ITB)	
SECTION-2	29
Qualification information	
SECTION-3	36
Conditions of Contract	
SECTION-4	54
Contract Data	
SECTION-5	61
Technical specification (Civil P.H. & E.I. works)	
SECTION-6	74
Form of bids	
SECTION-7	76
Bill of quantities	
Schedule of Civil works	
Schedule of E.I. works	
Schedule of P.H. works	
SECTION-8	88
Securities and other forms	
Additional conditions	99
Contractor(s) labour Regulation	107
Fair Wages Clauses	111
Rules for Protection of Health & Sanitary Arrangement	112
Explanatory Notes	117





E-TENDER NOTICE

The following e-tender is invited for Providing and Fixing of Fixtures and Gas Distribution System for Academic Block-II at Chaudhary Ranbir Singh University, Jind on Turn-Key Basis on behalf of the Registrar, CRSU, Jind from eligible and reputed bidders (building works) online on the website: https://etenders.hry.nic.in/.

The e-tenders shall be opened in the Conference Room, CRSU, Jind in the presence of the agencies or their authorized representative who may like to be present by having proper authorization letter. The details of e-tenders for the work given above which is available on the website https://etenders.hry.nic.in for the work detailed in the table:-

Sr.	Name of Work	Estimated	Earnest Money	Bid	Time	Start Date	Pre-Bid	Expiry Date	Date &
No.		Cost (In	Deposit (In	fee +	Period	& Time of	Meeting	& Time of	time for
		Lacs)	Lacs.)	E-	for	Bid	and Visit of	Bid	opening of
				service	compl	Preparation	Site	Preparation	technical
				fee (In	etion	&		&	Bid and
				Rs.)		Submission		Submission	Financial
					-				Bid
1.	Providing and	250.00	5.00 from	20000	06	20.02.2020	27.02.2020	12.03.2020	13.03.2020
	Fixing of		Firms/Agencies	+	Month	9:00 A.M.	11:00 A.M.	5:00 P.M.	11:00 A.M.
	Fixtures and		/Companies	1000+	s		Conference		
			And	GST			Hall,		<u> </u>
	Gas Distribution		2.50 from L&C				CRSU,		Opening of
	System for		Society				Jind		Financial
	Academic								Bid: To be announced
	Block-II at								Later On
	Chaudhary								
	Ranbir Singh								
	University, Jind								
	on Turn-Key								
	Basis.								

Cost of Bid document including E-Service fee (to be paid only online) is Rs.20000/- + 1000/- + GST (non refundable)

The payment for E-Tender Document Fee, E-Service Fee and EMD shall be made by eligible bidders online on the portal of GoH (Govt. of Haryana) and as mentioned under the E-tender Document.

For any query may contact on Telephone No. 01681-241004 on any working day between 9:00 A.M. to 5:00 P.M.

Registrar, CRSU, Jind

Detailed Notice Inviting E-Tender

Registrar, Chaudhary Ranbir Singh University, Jind invites the bids from eligible and reputed bidders through online bids on behalf of University, Item rate Tenders through E-tendering for below mentioned work are hereby invited from eligible reputed Manufactures/Dealers of the Modular Labs (Proof in this regard may be submitted with the technical bid). The tender form "along with conditions of contract" to be fulfilled, can be obtained from the website: <u>https://etenders.hry.nic.in</u>

Sr. No.	Name of Work	Estimated Cost (In Lacs)	Earnest Money Deposit (In Lacs.)	Bid fee + E- service fee (In Rs.)	Time Period for compl etion	Start Date & Time of Bid Preparation & Submission	Pre-Bid Meeting and Visit of Site	Expiry Date & Time of Bid Preparation & Submission	Date & time for opening of technical Bid and Financial Bid
1.	Providing and Fixing of Fixtures and Gas Distribution System for Academic Block-II at Chaudhary Ranbir Singh University, Jind on Turn-Key Basis.	250.00	5.00 from Firms/Agencies /Companies And 2.50 from L&C Society	20000 + 1000+ GST	06 Month s	20.02.2020 9:00 A.M.	27.02.2020 11:00 A.M. Conference Hall, CRSU, Jind	12.03.2020 5:00 P.M.	13.03.2020 11:00 A.M. Opening of Financial Bid: To be announced Later On

The Bidders can download the tender documents from the Portal: https://etenders.hry.nic.in.

The Bidders shall have to pay for the Tender documents, EMD Fees & eService Fee of Rs.1000/-+GST online by using the service of secure electronic payment gateway. The secure electronic payments gateway is an online interface between contractors and online payment authorization networks.

The Payment for Tender Document Fee and eService Fee can be made by eligible bidders/ contractors online directly through Debit Cards & Internet Banking Accounts. The Payment for EMD can be made online directly through RTGS / NEFT and the bidder would remit the funds at least T + 1 working day (Transaction + One working day) in advance to the last day and make the payment via RTGS / NEFT to the beneficiary account number as mentioned in the challan.

The Bidders can submit their tender documents (Online) as per the dates mentioned in the key dates:

	Key Dates						
Sr.	Department Stage	Bidder's Stage	Start date and time	Expiry date and			
No.				time			
1.		Tender Document	20.02.2020	12.03.2020			
		Download and Bid	9:00 A.M.	5:00 P.M.			
		Preparations/Submission					
2.	Pre-Bid and Visit of	-	27.02.2020	-			
	Site		11:00 A.M.				
	Site		Conference Hall, CRSU,				
			Jind				
3.	Technical Bid Opening	-	13.03.2020	_			
			11:00 A.M.				
4.	Financial Bid Opening	-	To be notified later on	-			

Important Note:

- 1) The bidders have to complete 'Bid Preparation & Submission' stage on scheduled time as mentioned above. If any bidder failed to complete his/her aforesaid stage in the stipulated online time schedule for this stage, his/her bid status will be considered as 'bids not submitted'.
- 2) Bidder must confirm & check his/her bid status after completion of his/her all activities for ebidding.

Bidder can rework on his/her bids even after completion of 'Bid Preparation & submission stage' (Bidder Stage), subject to the condition that the rework must take place during the stipulated time frame of the Bidder Stage

Registrar, CRSU, Jind

Instructions to bidder on Electronic Tendering System

These conditions will over-rule the conditions stated in the tender documents, wherever relevant and applicable.

Special Instructions to the Contractors/Bidders for the e-submission of the bids online through this eProcurement Portal

- 1. Bidder should do Online Enrolment in this Portal using the option Click Here to Enroll available in the Home Page. Then the Digital Signature enrolment has to be done with the e-token, after logging into the portal. The e-token may be obtained from one of the authorized Certifying Authorities such as eMudhraCA/GNFC/IDRBT/MtnlTrustline/SafeScrpt/TCS.
- 2. Bidder then logs into the portal giving user id / password chosen during enrolment.
- 3. The e-token that is registered should be used by the bidder and should not be misused by others.
- 4. DSC once mapped to an account cannot be remapped to any other account. It can only be Inactivated.
- 5. The Bidders can update well in advance, the documents such as certificates, purchase order details etc., under **My Documents** option and these can be selected as per tender requirements and then attached along with bid documents during bid submission. This will ensure lesser upload of bid documents.
- 6. After downloading / getting the tender schedules, the Bidder should go through them carefully and then submit the documents as per the tender document, otherwise, the bid will be rejected.
- 7. The BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for that tender. Bidders are allowed to enter the Bidder Name and Values only.
- 8. If there are any clarifications, this may be obtained online through the eProcurement Portal, or through the contact details given in the tender document. Bidder should take into account of the corrigendum published before submitting the bids online.
- 9. Bidder, in advance, should prepare the bid documents to be submitted as indicated in the tender schedule and they should be in PDF/XLS/RAR/DWF formats. If there is more than one document, they can be clubbed together.
- 10. Bidder should arrange for the EMD as specified in the tender. The original should be posted/couriered/given in person to the Tender Inviting Authority, within the bid submission date and time for the tender.
- 11. The bidder reads the terms and conditions and accepts the same to proceed further to submit the bids
- 12. The bidder has to submit the tender document(s) online well in advance before the prescribed time to avoid any delay or problem during the bid submission process.
- 13. There is no limit on the size of the file uploaded at the server end. However, the upload is decided on the Memory available at the Client System as well as the Network bandwidth available at the client side at that point of time. In order to reduce the file size, bidders are suggested to scan the documents in 75-100 DPI so that the clarity is maintained and also the size of file also gets reduced. This will help in quick uploading even at very low bandwidth speeds.
- 14. It is important to note that, the bidder has to Click on the Freeze Bid Button, to ensure that he/she completes the Bid Submission Process. Bids Which are not Frozen are considered as Incomplete/Invalid bids and are not considered for evaluation purposes.

- 16. The **Tender Inviting Authority (TIA)** will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders due to local issues.
- 17. The bidder may submit the bid documents online mode only, through this portal. Offline documents will not be handled through this system.
- 18. At the time of freezing the bid, the eProcurement system will give a successful bid updation message after uploading all the bid documents submitted and then a bid summary will be shown with the bid no, date & time of submission of the bid with all other relevant details. The documents submitted by the bidders will be digitally signed using the e-token of the bidder and then submitted.
- 19. After the bid submission, the bid summary has to be printed and kept as an acknowledgement as a token of the submission of the bid. The bid summary will act as a proof of bid submission for a tender floated and will also act as an entry point to participate in the bid opening event.
- 20. Successful bid submission from the system means, the bids as uploaded by the bidder is received and stored in the system. System does not certify for its correctness.
- 21. The bidder should see that the bid documents submitted should be free from virus and if the documents could not be opened, due to virus, during tender opening, the bid is liable to be rejected
- 22. The time that is displayed from the server clock at the top of the tender Portal, will be valid for all actions of requesting bid submission, bid opening etc., in the e-Procurement portal. The Time followed in this portal is as per Indian Standard Time (IST) which is GMT+5:30. The bidders should adhere to this time during bid submission.
- 23. All the data being entered by the bidders would be encrypted at the client end, and the software uses PKI encryption techniques to ensure the secrecy of the data. The data entered will not be viewable by unauthorized persons during bid submission and not viewable by any one until the time of bid opening. Overall, the submitted bid documents become readable only after the tender opening by the authorized individual.
- 24. During transmission of bid document, the confidentiality of the bids is maintained since the data is transferred over secured Socket Layer(SSL) with 256 bit encryption technology. Data encryption of sensitive fields is also done.
- 25. The bidders are requested to submit the bids through online eProcurement system to the TIA well before the bid submission end date and time (as per Server System Clock).

Bidder may visit <u>https://etenders.hry.nic.in</u> for any other queries.

SECTION-1

INSTRUCTIONS TO BIDDERS (ITB)

Section 1: Instructions to Bidders

Table of Clauses

	A. General	10		D. Submission of Bids	17
1	Scope of Bid	•	20	Deadline for Submission of Bids	
2	Source of Funds		21	Late Bids	
3	Eligible Bidders			E. Bid Opening	18
4	Qualification of the Bidder		23	Bid Opening	
5	One Bid per Bidder		24	Process to be Confidential	
6	Cost of Bidding		25	Clarification of Bids and Contracting the Employer	
7	Site Visit		26	Examination of bids and Determination of Responsiveness	
	B. Bidding Documents and Evaluation	14	27	Correction of Errors	
8	Content of Bidding Documents		28	Deleted	
9	Clarification of Bidding Documents and Pre-bid meeting.		29	Evaluation and Comparison of Financial Bids	
10	Amendment of Bidding Documents		30	Deleted	
	C. Preparation of Bids	15		F. Award of Contract	20
11	Language of Bid		31	Award Criteria	
12	Documents Comprising the Bid		32	Employer's Right to Accept any Bid and to Reject any or all Bids 16	
13	Bid Prices		33	Notification of Award and Signing of Agreement	
14	Currencies of Bid and Payment		34		
15	Bid Validity		35	Advances Payment and Security	
16	Bid Security		36	Deleted	
17	Alternative Proposals by Bidders		37	Corrupt or Fraudulent Practices	
18	Format and Signing of Bid		38	Appendix to ITB	
19	Sealing and Marking of Bids		39	Annexure I & II	

A. GENERAL

1. Scope of Bid

- 1.1 The Registrar, CRSU, Jind on behalf of University invites bids for the construction of works (as defined in these documents and referred to as "the works") detailed in the table given in ITB. The bidders may submit bids for any or all of the works detailed in the table given in ITB.
- 1.2 The successful bidder will be expected to complete the works by the intended completion date specified in the Contract data.
- 1.3 Throughout these bidding documents, the terms "bid" and "tender" and their derivatives (bidder/contractor, bid/tender, bidding/tendering, etc.) are synonymous.

2. Source of Funds

2.1 The expenditure on this project will be met from State Government Funding/Internal University Receipt.

3. Eligible Bidders.

3.1 This Invitation for Bids is open to all bidders as defined in Appendix to ITB.

4. Qualification of the Bidder

- 4.1 All bidders shall provide in Section-2, Forms of Bid and Qualification Information a preliminary description of the proposed work method and schedule, including drawing and charts, as necessary. The proposed methodology should include programme of construction backed with equipment planning and deployment duly supported with broad calculations and quality assurance procedures proposed to be adopted justifying their capability of execution and completion of work as per technical specifications, within stipulated period of completion.
- 4.2 Deleted
- 4.3 All bidders shall include the following information and documents with their bids in Section 2:
- a) Copies of original documents defining the constitution or legal status, place of registration, and principal place of business, written power of attorney of the signatory of the Bid to commit the Bidder.
- b) Total monetary value of construction work performed for each of the last seven years.
- c) Experience in works of similar nature (defined as billing for works in progress and completed in all cases of Buildings only) and size for each of the last seven years and details of works underway or contractually committed, and clients who may be contacted for further information on those contracts.
- d) Major items of construction equipment proposed to carry out the Contract.
- e) qualifications and experience of key site management and technical personnel proposed for Contract:
- f) Reports on the financial standing of Bidder, such as profit and loss statements and auditor's reports for the past seven years.
- g) Evidence of access to line(s) of credit and availability of other financial resources facilities (25% of contract value), certified by the Bankers (Not more than 3 months old).
- h) Undertaking that the bidder will be able to invest minimum cash up to 25% of contract value of work, during implementation of work.
- i) authority to seek references from the Bidder's bankers;
- j) information regarding any litigation, current or during the last Seven years, in which the Bidder is involved, the parties concerned, and disputed amount;
- k) Proposals for subcontracting components of the works amounting to limiting to 30 per cent of the Bid Price (for each, the qualifications and experience of the identified sub-contractor in the relevant field should be annexed); and the proposed methodology and programme of construction, backed with equipment planning and deployment, duly supported with broad calculations and quality control procedures proposed to be adopted, justifying their capability of execution and

completion of the work as per technical specifications within the stipulated period of completion as per milestones.

4.4 Bids from Joint ventures are not acceptable. Sublet works will not be considered for evaluation purpose of technical bid. Work should have been done in the name of the bidder.

4.5 Qualification Criteria

4.5A. To qualify for award of the contract, each bidder in its name should have in the last seven years as referred to in Appendix.

- a) The applicant should have experience of having successfully completed/on-going similar works in any Govt. Establishment/Institution during last 3 years ending last day of month previous to the one in which applications are invited should be either of the following:
 - i. Three similar completed works executed and costing not less than the amount equal to 40% of the estimated cost.
 - ii. Two similar completed works executed and costing not less than the amount equal to 50% of the estimated cost.
 - iii. One similar completed work executed and costing not less than the amount equal to 80% of the estimated cost.

Cost of work shall mean gross value of the completed work including the cost of materials supplied by the Govt. / Client, but excluding those supplied free of cost. This should be certified by an officer not below the rank of Executive Engineer/ Project Manager or equivalent (calculated on the basis of 7% value added compounded per year).

- b) The applicant (Bidder or manufacturer) should have minimum Average Annual financial turnover of similar works during the last 3 years, ending 31st March of the previous financial year, should be at least 80% of the Tendered amount. This should be duly audited by a Chartered Accountant (07% compounded value per year to be added)
- c) The applicant should have not incurred any loss in more than two years during the last five years ending last day of tender duly certified by the Charted Accountant.
- d) The applicant's performance for each work completed if any in the last 3 years and in hand should be certified by an officer.
- e) The Manufacturer modular system must be of SEFA 8M compliant (Scientific Equipment & Furniture Association), CE Certification or any certification approved by Government of India, OHSAS 18001:2015, ISO 9001: 2015, ISO 14001:2015. (Certificates may be enclosed with the technical bid)
- f) The modular laboratory should be as per the approved layout. All laboratory furniture system should have international standard of manufacturing. All cabinets should be epoxy powder coated from Azko Nobel and certificate to be provided after the commissioning. All the furniture in C-frame/D-Frame should be made from virgin CRCA MS/GI powder coated, Epoxy powder coating should not be less than 50 microns or better. (Undertaking to this effect may be attached)
- g) Should have metal Shutter and Drawers Storage Cabinets to be of complete modular design Consisting of C-frames, Cabinet Frame, Cover panels, metal shutters & drawers, support brackets, shelves, slides and handles. (Undertaking to this effect may be attached)
- h) The complete CRCA M.S/GI. material, cabinet frame to be a combination of 1.2 mm horizontal or stiffeners and 0.9 mm vertical panel of CRCA MS sheet. Weldless Metal Shutters drawers and facias should be made of 0.9mm thick CRCA MS sheet with profile insert to provide rigidity to the doors. Granite /Reagent Support Brackets should be provided to serve the purpose of supporting the granite and carrying the service lines. Support Brackets to be provided in 2 mm CRCA MS sheet. Unit Shelves in CRCA to have a load carrying capacity of 40 kg. (Undertaking to this effect may be attached)
- i) The overall load carrying capacity of drawer to be 40 kgs. of UDL for a pair of ball slide. High precision double extension ball slides to be provided for the drawers. Hinges should be spring loaded, CED coated of Hettich Make. Material should passes the test of Salt Spray for 1000 hours and having the Scratch Hardness of 3Kgs. Testing will be got done Shri Ram Test Lab and Charges will be borne by the bidder. (Undertaking to this effect may be attached)

- j) Presentation will be given by the bidders before finalization of technical bid. 1 sample of each module will be presented in the presentation. Date for presentation will be intimated after scrutiny of technical papers if required by committee. (undertaking may be provided).
- buring execution of work any alteration i.e. making holepass of any size, modification in ceiling, wall tile or floor tile including plumbing and electrical; work including repair of the same will be part of the scope of the work and will be borne by the contractor (Undertaking to this effect may be attached)

B. Each bidder should further demonstrate:

(a) Availability (either owned or leased) of the key and critical equipment with proof to attain the completion of works in accordance with the prescribed construction schedule are shown in the **Annexure-I.**

The bidders should, however, undertake their own studies and furnish with their bid, a detailed construction planning and methodology supported with layout and necessary drawings and calculations (detailed) as stated in clause 4.3(1) above to allow the employer to review their proposals. The numbers, types and capacities of each plant/equipment shall be shown in the proposals along with the cycle time for each operation for the given production capacity to match the requirements. If the contractual agency fails to bring any of the quality control lab equipment as mentioned in Annexure-I, the item will be arranged by CRSU, JIND and recovery shall be made from the contractor's bill @ double the cost of that item.

- (b) Availability for this work of personnel with adequate experience as required; as per Annexure-II.
- (c) Liquid assets and/or availability of credit facilities of not less than amount indicated in Appendix.
- (d) GST number Taken from Centre Government will have to be attached
- (e) PAN No. should be attached
- (f) ESIC, EPF and Labour registration certificate should be attached with the tender.

C) To qualify for a package of contracts made up of this and other contracts for which bids are invited in the IFB, the bidder must demonstrate having experience and resources sufficient to meet the aggregate of the qualifying criteria for the individual contracts.

4.6. Sub-contractors" experience and resources shall not be taken into account in determining the bidder"s compliance with the qualifying criteria except to the extent stated in 4.5 (A) above.

4.7. **Bid Capacity**

Bidders who meet the minimum qualifications criteria shall be qualified only if their available bid

Maximum value of similar works executed in any one year during the last seven years (updated to the price level of the last year @5% per annum) taking into account the works completed and in progress.

capacity for construction work is equal to or more than the total bid value. The available bid capacity shall be calculated as under:

Assessed Available Bid Capacity = (A*N*M-B)

where A= Maximum value of similar works executed in any one year during the last seven years (updated to the price level of the last year @5% per annum) taking into account the works completed and in progress.

- N= Number of years prescribed for completion of the works for which bids are invited (period up to six months taken as half-year and more than six months as full year)
- M= 3
- B= Value of the existing commitments and ongoing works to be completed during the period of completion of the works for which bids are invited (updated to the price level of the last year @5% per annum).

- **Note:** The statements showing the value of existing commitments and on- going works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the officer/official nominated by the Competent authority.
- **4.8** Even though the bidder met the above qualifying criteria, they are subject to be disqualified if they have:
 - made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/or.
 - Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc: and/or.
 - Participated in the previous bidding for the same work and had quoted unreasonably high bid prices and could not furnish rational justification to the employer.

The bidder who had abandoned the work or his contract was rescinded or was terminated due to non completion of work / or any other default on the part of the contractor in two or more contracts during last seven years, shall be considered as non performer and no work will be allotted to him . No specific order for debarment shall be needed for this purpose.

In case the number of contracts where the work has been abandoned by the contractor or his contract was rescinded or terminated in less than two works, he is required to submit additional 10% (Ten percent) performance security over and above what has been stipulated in the bidding document. Information in the form Affidavit may be attached by the bidder.

5. One Bid per Bidder.

5.1 Each bidder shall submit only one bid for one package. A bidder who submits or participates in more than one Bid (other than as a subcontractor or in cases of alternatives that have been permitted or requested) will cause all 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 and liable for those costs.

7. Site Visit.

The Bidder, at the Bidder's own responsibility and risk is encouraged to visit and examine the Site of Works and its surroundings 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. No claim regarding any issue at site of works will be entertained after the allotment of work.

The societies participating in the bid shall submit the details all shareholders e.g. names/address/e-mail address/details of bank account/copies of AADHAAR card/pan card. This information should be certified by Register of Cooperative Societies. The bidder should also submit resolution of society for such bid duly approved by Register of Cooperative Societies.

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:

Section	Particulars.
	Invitation for Bids
1	Instructions to Bidders
2.	Qualification Information and other forms.
3	Conditions of Contract
4.	Contract-Data.
5.	Technical Specifications
6.	Form of Bid.
7.	Bill of Quantities.
8.	Securities and others forms
9.	Drawings
10.	Documents to be furnished by the bidder.

8.2 The bidder is expected to examine carefully all instructions, conditions of contract, contract data, forms, terms, technical specifications, bill of quantities, forms, Annexes and drawings in the Bid Document. Failure to comply with the requirements of Bid Documents shall be at the bidder"s own risk. Pursuant to clause 26 hereof, bids which are not substantially responsive to the requirements of the Bid documents shall be rejected.

9. Clarification of Bidding Documents.

9.1. A prospective bidder requiring any clarification of the bidding documents may notify the Employer in writing or by cable (hereinafter "cable" includes telex and facsimile) at the Employer"s address indicated in the invitation to bid. The Employer will respond to any request for clarification which he received earlier than 15 days prior to the deadline for submission of bids. Copies of the Employer"s response will be forwarded to all purchases of the bidding documents, including a description of the enquiry but without identifying its source.

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 communicated in writing or by e-mail to all the purchasers of the bidding documents. Prospective bidders shall acknowledge receipt of each addendum in writing or by e-mail to the Employer. The Employer will assume no responsibility for postal delays.
- 10.3. To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer may, at his discretion, extend as necessary the deadline for submission of bids, in accordance with Sub-Clause 20.2 below.

C.PREPARATION OF BIDS

i) Language of the Bid

11.1 All documents relating to the bid shall be in the English language.

12. Documents Comprising the Bid.

12.1 The bid to be submitted Online by the bidder (refer Clause 8.1) shall be in two separate envelops / parts:

Envelope 1: Technical Bid

Envelope 2: Commercial Bid

Envelop 1 / Part-I shall be named "Technical Bid" which will be submitted online.

- (ii) For bidding documents downloaded from website (refer IFB), the cost of bidding document will be paid online.
- (iii) Bid Security in the form specified in Section 8.
- (iv) Qualification Information and supporting documents as specified in Section-2.
- (v) Certificate, undertakings, affidavits as specified in Section 2.
- (vi) Information pursuant to Clause 4 of these instructions.
- (vii) Undertaking that the bid shall remain valid for the period specified in Clause 15.1.

Envelop 2 / Part-II shall be named "Financial Bid" and shall comprise.

- (i) Form of Bid as specified in Section 6.
- (ii) Priced Bill of Quantities for items specified in Section 7.

Both bids will be submitted online in accordance with Clause 19.

12.2. Following documents, which are not submitted with the bid, will be deemed to be part of the bid.

Section.	Particulars.	
1.	Invitation for Bids (IFB). Instructions to Bidders.	
2. 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 Sub-Clause 1.1, based on the priced Bill of Quantities submitted by the Bidder.
- 13.2. The intending Contractors shall fill Single individual rates.
- 13.3. All taxes including GST and any other tax as applicable from time to time will be applicable on the successful bidder and shall be included in the rates, prices and total Bid Price submitted by the Bidder. Income tax, GST and labour cess will be deducted as applicable.

14. Currencies of the Bid and Payment.

14.1. The unit rates and the price shall be considered in Indian Rupees. All payments shall be made in **Indian Rupees**.

15. Bid Validity.

- 15.1. Bids shall remain valid for a period not less than 120 days after the deadline date for bid submission. A bid valid for a shorter period shall be rejected by REGISTRAR CRSU JIND as non-responsive. In exceptional circumstances, prior to expiry of original time limit, the Employer may request that the bidder may extend the period of validity for a specified additional period.
- 15.2. In exceptional circumstances, prior to expiry of the original time limit, the Employer may request that the bidders may extend the period of validity for a specified additional period. The request and the bidders" responses shall be made in writing or by cable. A bidder may refuse the request without forfeiting his bid security. A bidder agreeing to the request will not be required or permitted to modify his bid except as provided in 15.3 hereinafter, but will be required to extend the validity of his bid security for a period of the extension, and in compliance with Clause 16 in all respects.
- 15.3. In the case of contracts in which the Contract Price is fixed (not subject to price adjustment), in the event that the Employer requests and the Bidder agrees to an extension of the validity period, the contract price, if the Bidder is selected for award shall be the bid price corrected as follows; The price shall be increased by the factor of 0.2% for each week or part of a week that has elapsed from the expiration of the initial bid validity to the date of issue of letter of acceptance to the successful Bidder.
- 15.4. Bid evaluation will be based on the bid prices without taking into consideration the above correction.

16. Bid Security.

- 16.1. The Bidder shall furnish, as part of his Bid, a Bid security in the amount as shown in column 4 of the table of IFB for this particular work. The bid security can be made online directly through RTGS / NEFT and the bidder would remit the funds at least T + 1 day (Transaction + One day) in advance to the last day and make the payment via RTGS / NEFT to the beneficiary account number as mentioned in the challan.
- 16.2. Any bid not accompanied by an acceptable Bid Security and not secured as indicated in Sub-

Clauses 16.1 and 16.2 above shall be rejected by the Employer as non-responsive.

- 16.3. The Bid Security of unsuccessful bidders will be returned within 45 days of the end of the bid validity period specified in Sub-Clause 15.1.
- 16.4. The Bid Security of the successful bidder will be discharged when the bidder has signed the Agreement and furnished the required Performance Security.
- 16.5. The Bid Security may be forfeited.
 - (a) If the Bidder does not accept the correction of the Bid Price, pursuant to Clause 27; or.
 - (b) in the case of a successful Bidder, if the Bidder fails within the specified time limit to
 - (i) Sign the Agreement; or.
 - (ii) Furnish the required Performance Security.

17. Alternative Proposals by Bidders.

17.1. Bidders shall submit offers that fully comply with the requirements of the bidding documents, including the conditions of contract, basic technical design as indicated in the drawing and specifications. Conditional offer or alternative offers will not be considered further in the process of tender evaluation.

18. Format and Signing of Bid Deleted

D. SUBMISSION OF BIDS

19. Sealing and Marking of Bids.

19.1. Technical bid: to be opened on 13.03.2020 at 11.00 A.M. (date & time of technical bid opening as per clause 23.1 of ITB)
Financial Bid; to be notify later on. The contents of Technical and Financial Bids will be as specified in clause 12.1

20. Deadline for Submission of the Bids 12.03.2020 at 17:00 Hrs.

- 20.1 Deleted.
- 20.2. The Employer may extend the deadline for submission of bids by issuing an amendment in accordance with Clause 10, in which case all right and obligations of the Employer and the bidders previously subject to the original deadline will then be subject to the new deadline.
- 21. Deleted
- 22. Deleted

E. BID OPENING AND EVALUATION

23. Bid Opening

23.1. REGISTRAR, CRSU, JIND will open all the Bids received (except those received late), in the presence of the Bidders or their representatives who choose to attend at time, date and the place specified in Appendix in the manner specified in Clause 23.3. In the event of the specified date of Bid opening being declared a holiday, the Bids will be opened at the appointed time and location on the next working day.

23.2. **Deleted.**

- 23.3. The "Technical Bid" shall be opened first.
- 23.4 The amount of earnest money, forms and validity shall be announced. Thereafter, the bidder's names and such other details as the Employer may consider appropriate, will be announced by REGISTRAR, CRSU, JIND at the opening.
- 23.5 Evaluation of the technical bids with respect to bid security, qualification information and other information furnished pursuant to clause 12.1 of ITB shall be taken up and completed before the date of bid opening and a list will be drawn up of the responsive bids whose financial bids are eligible for consideration.
- 23.6 The date & time of opening of the Financial Bid will be announced by the Employer in case of any change.
- 23.7. At the time of opening of "Financial Bid", the names of the bidders whose bids were found responsive in accordance with Clause 23.4 will be announced. The bids of only those bidders will be opened. The responsive Bidder's names, the Bid prices, the total amount of each bid, any discounts and such other details as the Employer may consider appropriate, will be announced by REGISTRAR, CRSU, JIND at the opening. Any Bid price or discount, which is not read out and recorded, will not be taken into account in Bid Evaluation.
- 23.8 REGISTRAR, CRSU, JIND will prepare the minutes of the bid opening including the information disclosed to those present in accordance with sub clause 23.6.

24. Process to be Confidential

24.1. 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 efforts by a Bidder to influence the REGISTRAR CRSU JIND processing of Bids or award decisions may result in the rejection of his Bid.

25. Clarification of Financial Bids

25.0. To assist in the examination, evaluation, and comparison of Bids, REGISTRAR CRSU JIND may, at his discretion, ask any Bidder for clarification of his Bid, including breakdowns of unit rates. The request for clarification and the response shall be in writing or by cable, but no change in the price or substance of the Bid shall be sought, offered, or permitted except as required to confirm the correction of arithmetic errors discovered by REGISTRAR CRSU JIND in the evaluation of the Bid in accordance with Clause 27.

- 25.1. Subject to sub-clause 25.1, no Bidder shall contact the Employer on any matter relating to his bid from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Employer, it should do so in writing.
- 25.2. Any efforts by the Bidder to influence REGISTRAR CRSU JIND in the Employer's bid evaluation, bid comparison or contract award decisions may result in the rejection of the Bidders' bid.

26. Examination of Bids and Determination of Responsiveness

- 26.1. During the detailed evaluation of "Technical Bids", REGISTRAR CRSU JIND will determine whether each Bid (a) meets the eligibility criteria defined in Clause 3 and 4; (b) has been properly signed; (c) is accompanied by the required securities and; (d) is substantially responsive to the requirements of the Bidding documents. During the detailed evaluation of the "Financial Bid", 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.
- 26.2. A substantially 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 of reservation is one (a) which effects in any substantial way the scope, quality, or performance of the Works; (b) which limits in any substantial way, inconsistent with the Bidding documents, REGISTRAR CRSU JIND right or the Bidder"s obligations under the Contract; or (c) Whose rectification would affect unfairly the competitive position of other Bidders presenting substantially responsive Bids.
- 26.3. If a "Financial Bid" is not substantially responsive, it will be rejected by REGISTRAR CRSU JIND and may not subsequently be made responsible by correction or withdrawal of the non-conforming deviation or reservation.

27. Correction of Errors.

- 27.1. "Financial Bids" determined to be substantially responsive will be checked by REGISTRAR CRSU JIND for any arithmetic errors. Errors will be corrected by the Employer as follows:
 - (a) Where there is a discrepancy between the rates in figures and in words, the rate in words will govern; and
 - (b) Where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern.
- 27.2. The amount stated in the "Financial Bid" will be corrected by the Employer in accordance with the above procedure and the bid amount adjusted with the concurrence of the Bidder in the following manner.
 - (a) If the Bid price increases as a result of these corrections, the amount as stated in the bid will be the "bid price" and the increase will be treated as rebate;
 - (b) If the bid price decreases as a result of the corrections, the decreased amount will be treated as the "bid price"

Such adjusted bid price shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected amount the Bid will be rejected, and the Bid security may be forfeited in accordance with Sub-Clause 16.6 (b).

28. Deleted

29. Evaluation and Comparison of Financial Bids.

- 29.1. REGISTRAR CRSU JIND will evaluate and compare only the Bids determined to be substantially responsive in accordance with Sub-Clause 26.2.
- 29.2. In evaluating the Bids, the Employer will determine for each Bid the evaluated Bid Price by adjusting the Bid Price as follows:
 - (a) Making any correction for errors pursuant to Clause 27; or
 - (b) Making an appropriate adjustment for any other acceptable variations. deviations; and (c)deleted.
- 29.3. REGISTRAR CRSU JIND reserves the right to accept or reject any variation or deviation, Variations and deviations and other factors, which are in excess of the requirements of the Bidding documents or otherwise result in unsolicited benefits for the Employer shall not be taken into account in Bid evaluation.
- 29.4. The estimated effect of the price adjustment conditions under Clause-47 of the *Conditions of Contract*, during the period of implementation of the Contract, will not be taken into account in Bid evaluation.
- 29.5. If the Bid of the successful Bidder is seriously unbalanced in relation to the Engineer's estimate of the cost of work to be performed under the contract, REGISTRAR CRSU JIND may require the Bidder to produce detailed price analyses 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 analyses, the Employer may require that the amount of the performance security set for the in Clause 34 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.
- 29.6. A bid which contains several items in the Bill of Quantities which are unrealistically priced low and which cannot be substantiated satisfactorily by the bidder, may be rejected as non-responsive.

30. Deleted

F. AWARD OF CONTRACT

31. Award Criteria

- 31.1 Subject to Clause 32, REGISTRAR CRSU JIND will award the Contract to the Bidder who"s Bid has been determined.
 - (i) to be substantially responsive to the Bidding documents and who has offered the lowest evaluated Bid Price; 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 packages opened earlier than the one under Consideration.

In no case, the contract shall be awarded to any bidder whose available bid capacity is less than the evaluated bid.

32. Employer's right to accept any Bid and to reject any or all Bids

32.1. Notwithstanding Clause 31, 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 effected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Employer action.

- 32.2. Normally, the lowest responsive tender (L1) shall be accepted unless there is some valid objection like, his record of failure in execution of formal works or his rates being abnormally low and nor workable, etc
- 32.3. Deleted

33. Notification of Award and Signing of Agreement

- 33.1. The Bidder whose Bid has been accepted will be notified of the award by the Employer prior to expiration of the Bid validity period by cable, telex or facsimile confirmed by registered letter. This letter (hereinafter and in the *Conditions of Contract* called the "Letter of Acceptance") will state the sum that the Employer will pay the Contractor in consideration of the execution, completion, and maintenance of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price").
- 33.2. The notification of award will constitute the formation of the Contract, subject only to the furnishing of performance security in accordance with the provisions of Clause 34.
- 33.3. The agreement will incorporate all agreements between the Employer and the successful Bidder. It will be signed by the Employer and sent to the successful Bidder, within 28 days following the notification of award along with the Letter of Acceptance. Within 21 days of receipt, the successful Bidder will sign the Agreement and deliver it to the Employer.
- 33.4. Upon the furnishing by the successful Bidder of the Performance Security, REGISTRAR CRSU JIND.

will promptly notify the other Bidders that their Bids have been unsuccessful.

33.5 If the lowest bidder (L-1) backs out, his earnest money shall be forfeited, the agency will be debarred for giving tenders for one year and the second lowest bidder(L-2), third lowest bidder (L-3) in order of sequence, may be called upon to bring his offer to the same level as the originally first lowest bidder. In the event of their refusal to do so, tenders shall be recalled. In case of great urgency, authority competent to accept the tender may authorize call of limited or short notice tenders.

34. Performance Security

- 34.1. Within 21 days of receipt of the Letter of Acceptance, the successful Bidder shall deliver to REGISTRAR, CRSU, JIND a Performance Security in any of the forms given below for an amount equivalent to 5% of the Contract price plus additional security for unbalanced or front loaded tenders in accordance with Clause 29.5 of ITB to be kept as a surety that the contractor completes the work satisfactory. The performance security will be valid up to the end of the defect liability period plus 60 days or as prescribed in the contract data. In case, the time of completion is enlarged, the validity of the guarantee shall be correspondingly extended. It carries no interest and is refunded to the contractor after the date specified in the contract.
 - a bank guarantee in the form given in Section 8; or
 - certified Bank Draft as indicated in Appendix.
- 34.2. If the performance security is provided by the successful Bidder in the form of a Bank Guarantee, it shall be issued either (a) at the Bidder"s option, by a Nationalized/Scheduled Indian bank or (b) by a foreign bank located in India and acceptable to the Employer.
- 34.3. Failure of the successful Bidder to comply with the requirements of Sub-Clause 34.1 shall constitute sufficient grounds for cancellation of the award, forfeiture of the Bid Security and debarring the agency for giving tenders for one year. If the work of is an urgent nature and cannot

brook delay involved in re-tendering, the remaining bidder shall be offered the lowest approved rates. If more than one bidder turns up, then preferences shall be given to the bidder graded according to the rates quoted in the first instance.

34.4 **Subsequent Offer:-.** But if the subsequent even from a non-tenderer(received within one week of the previous offer and before the decisions of the contract) is not just marginally but significantly favourable to the Government (to the extent of 5% of the lowest tender amount in case of works

costing more than Rs.5.00 crores, 10% in case of works more than Rs.1.00 crore but less than Rs.5.00 crores, 20% for in case of works more than Rs.5.00 lacs but less than Rs.1.00 crore and 30% in case of works less than Rs.5.00 lacs or any other limits as decided by Government from time to time) then the subsequent offer can be considered provided the bidder deposits the bid security and unconditional bank guarantee for the difference of the amounts between the offer of the lowest agency and the subsequent fresh offer. In that case, short notice fresh sealed bids shall be invited, with special invitation to the previous participants including the subsequent bidder mentioned above, but with the stipulation that the subsequent bidder shall not bid higher than his previous offer, otherwise his bid security and bank guarantee shall be forfeited. Tender shall be allotted to the lowest valid bid received.

34.5 The letter of acceptance shall be issued to the contractor for an amount of its financial offer as evaluated. If this amount is more than 20% above the administrative approval, Revised approval shall be taken. In other cases work can be allotted under intimation to Vice Chancellor. In any case, revised administrative approval shall be sought if the excess over the amount of administrative approval is more than 10%.

35. Secured Advance Payment The Employer will provide an secured Advance Payment as stated in the Contract Data.

36. Deleted

37. Corrupt or Fraudulent Practices

- 37.1. REGISTRAR CRSU JIND, will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question and will declare the firm ineligible, either indefinitely or for a stated period of time; to be awarded a contract with Govt. of India/State CRSU JIND and any other agencies, if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for the contractor, or in execution.
- 37.2. Furthermore, Bidders shall be aware of the provision stated in Sub-Clause 23.3 and Sub-Clause 59.2 of the Conditions of Contract.

38. Debarring

If the agency submits Financial Bid through e-tendering but fails to submit either bid security or the Technical bid or both, then the agency will be debarred from further tendering in CRSU JIND Jind. for minimum one year.

39. Payment System

The agency/bidder to which the work is allotted shall be paid lowest of the following in the running bills (90% of goods installed)/finals bills:

1. Amount calculated with the accepted rates of the lowest agency.

Amount worked out with the accepted percentage above HSR+CP/analytical rates/NS item/Unit rates worked out

in financial statement. Financial statement will be made a part of agreement.

40. Completion of work

The agency to which the work is allotted shall complete the entire work as per drawing irrespective of quantities in the DNIT. The agency is bound to consult the drawings before tendering and tender the work accordingly.

41. Withdrawal of items

The Employer can withdraw any item of DNIT at any stage. No claim on account of withdrawal will be entertained.

APPENDIX to ITB

1. Name of the Employer :- CRSU, JIND [Cl. 1.1]

Name of the Engineer: - Will be notify later on.

2. Eligible bidders are Bidders registered with Haryana Government, [Cl. 3.1] Other State Governments, Government of India and other Central and State Government Undertakings up to the tendering limit of tender amount at least.

The las	t		
Seven			
years			
	2012-2013		
	2013-2014		
	2014-2015		
	2015-2016		
	2016-2017		
	2017-2018		
	2018-2019		
4.	Escalation factors (for the co	st of works executed and	[Cl. 4.5]
	financial figure to a common	base value for works completed)	
	Year before	Multiplying factor	
	2012-2013	1.51	
	2013-2014	1.41	
	2014-2015	1.32	
	2015-2016	1.23	
	2016-2017	1.145	
	2017-2018	1.07	
	2018-2019	1	

The annual average financial turn over amount is 50% of estimated cost [Cl. 4.5A (b)]
 Liquid assets and/or availability of [Cl. 4.5B(c)] credit facilities is 20% of the DNIT amount Undertaking from banks for extending credit facility up to Rs. 100.00 Lakhs will be accepted.

- 7. Price level of the current financial year [Cl. 4.7]
- 8. The technical bid will be opened at Conference Room, CRSU, JIND in the presence of Committee members nominated by the Competent Authority and bidders.
- 9. Address of the Employer is REGISTRAR, CRSU, JIND [Cl. 4.5(a)]
- 10. Identification:
- 11. The bid should be submitted latest by 12.03.2020
- 12. Deleted

13. The Bank Draft / Bank Guarantee from any nationalized bank Nationalized/Scheduled Indian bank or (b) by a foreign bank located in India and acceptable to the Employer.

[Cl. 19.2(b)]

ANNEXURE –I (N/A)

(Reference CI.4.5 (B) (a)

List of Key plant & Equipment to be deployed on the work (contract (s) amounting more than Rs.10.00 crores) except minor Special Repair & Maintenance works.

Sr. No	Item of Equipment	Requirement
51.110	rem of Equipment	Requirement
1	New and independent Computerized	1 No. 25 cum/hour as per requirement.
	Concrete Batching Plant	
2	Concrete Weigh Batcher computerized	1 No.(1 cum capacity minimum)
3	New Concrete Pump	1 No. 25 cum/hour minimum
4	Concrete Transit Mixer	As required
5	Concrete vibrator (Skin)	2.Nos.
6	Needle vibrator	5.Nos. with minimum 2 no. as petrol running
7	Plate compactor	2 No.
8	Tipper/Dumper	2. Nos.
9	Compressor	Optional as required
10	Generator with CPRIO approved canopy	1 No
11	Bar bending Machine	2 No
12	JCB	1 No.

13	Hydraulic lift/ordinary lift	1 No
14	Tower crane	1.No. for works more than Rs.30 cr.
15	Reverse Osmosis Plant	1 No. for works where water as per IS 456 is not available

Quality Control Lab Equipments:- (N/A)

Sr.	Item of Equipment	Requirement	
No.			
1	Sieves required for Coarse Aggregate & fine aggregate	1 Set	
2	Impact value/Flakiness testing equipment	1 Set	
3	Cube Moulds	48 Nos.	
4	Slump Test	4 Nos	
5	Compression testing machine (Automatic computerized recording-AIMIL or equivalent make)	1 No	
6	Electronics Weighing Machine branded	100 Kg capacity (1 No) 5 Kg capacity (01 No.)	
7	Water testing equipment/arrangement (Water to be tested daily till the completion of Concrete work.	1 No	
8	Soil density measuring operators	1 No	
9	Any other equipment required at site for quality control by the Engineer-in-charge like Gauze meter, Varnier caliper, Measuring equipment, Dumpy level, Total Station.		

Note:-

- 1. Deleted.
- 2. Deleted.
- 3. Deleted.
- 4. Scaffolding material will be of steel pipes/wooden using coupling/ledger system. The same is to be arranged by the contractor.
- 5. Deleted

- 6. Material/workmanship is expected to be of high standard being prestigious buildings. Only those contractors who believe in high standards should participate in bidding.
- 7. Apparatus if any required by third party quality assurance will be arranged at site by the successful bidder.
- 8. All samples collected by Third Party Quality Assurance at site will be transported to any lab given by Third Party Quality Assurance at free of cost by the successful bidder.
- 9. Calibration of all apparatus as per IS Code will be got done from NABL approved lab. The successful bidder will bear the cost of such calibration.

ANNEUXRE-II

List of Key Personnel to be deployed on Contract Work.

(Reference CI 4.5 (B) (b)

Sr.	Agreement Amount.	Key personal required to be employed by the Contractor	Recovery rate in case of Non Employment
1	Above Rs.	One Civil Engineer/Mechanical/Elect rical with regular diploma in Civil Engineering with 10 years experience in Modular Lab construction	Rs. 40,000/- per month for Civil Engineer/Mechanical

In case the contractor fails to employ the Key Personnel required to be employed as above at site, the department will employ the personnel and the recoveries will be made as above from his bills along with 14% departmental charges. The personnel so employed shall be considered as employees of the contractor and all responsibilities of them shall lie with him only.

SECTION-2

QUALIFICATION INFORMATION

QUALIFICATION INFORMATION

The information to be filled in by the Bidder in the following pages will be used for purposes of post qualification as provided for in Clause 4 of the Instructions to Bidders. This information will not be incorporated in the Contract.

1. For Individual Bidders

 1.1.
 Constitution or legal status of Bidder [Attach copy]

 Place of registration:

 Principal place of business:

> Power of attorney of signatory of Bid [Attach]

- 1.2. Total value of Building Construction works performed in the last seven Years if applicable ** (in Rs. in lacs)
- 1.3.1. Work performed as prime contractor and work performed in the past as a nominated subcontractor will also be considered provided the sub-contract involved execution of all main items of work described in the bid document, provided further that all other qualification criteria are satisfied (in the same name) on works of a similar nature over the last seven years.**

Project Name	Name of the Employer	Description of work	Contract No.	Value of Contract (Rs. crore)	Date of issue of work order	period of	Actual date of completion*	Remarks explaining reasons for delay & work Completed

*Attach certificate(s) from the Engineer(s)-in -Charge

**immediately preceding the financial year in which bids are received. B Attach certificate from chartered Accountant.

#1.3.2 Quantities of work executed as prime contractor and work performed in the past as a nominated sub-contractor will also be considered provided the sub-contract involved execution of all main items of work described in the bid document, provided further that all other qualification criteria are satisfied (in the same name and style) in the last seven years:**

	Year	Name of the work	Name of the Employer *		Quantity of work performed					
				Cement	Masonry	Plastering	Flooring	Flooring	Wood	Remarks*
				Concrete		work	work	work	Work	(indicate
				(including			(terrazzo)			contract
				RCC & PCC				marble,		Ref)
								tiles)		
ſ	2012-13									
	2013-14									
	2014-15									
	2015-16									
	2016-17									
	2017-18									
	2018-19									
	2018-19									

- 1.4.1. 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 works:

Description of works	Place & State	Contract No.	Name & Address of Employer	Value of Contract (Rs. Cr)	Stipulated period of completion	Value of works* remaining to be completed (Rs. Cr)	Anticipated date of completion
1	2	3	4	5	6	7	8

* Attach certificate(s) from the Engineer(s)-in-Charge

@ The item of work for which data is requested should tally with that specified in

ITB clause 4.5A(c). ** immediately preceding the financial year in which bids are

received.

(B) Works for which bids already submitted:

Description of works	Place & State	Name & Address of Employer	Estimated value of works (Rs. Cr.)	Stipulated period of completion	Date when decision is expected	Remarks, if any
1	2	3	4	5	6	7

1.4. Availability of key items of Contractor⁴⁵'s Equipment essential for carrying out the Works [Ref. Clause 4.5(B)(a)]. The Bidder should list all the information requested below. Refer also to Sub Clause 4.3 (d) of the Instructions to Bidders.

Item of	Requirement		Ava	Remarks		
Equipment	No.	Capacity	Owned/ Leased	Nos./Capacity	Age/	Proof may be
			to be procured		Condition	submitted

1.6. Qualifications and experience of key personnel required for administration and execution of the Contract [Ref. Clause 4.5(B)(b)]. Attach biographical data. Refer also to Sub Clause 4.3 (e) of instructions to Bidders and Sub Clause 9.1 of the Conditions of Contract.

Position	Name	Qualification	Year of Experience (General)	Years of experience in the proposed position
Project Manager				
Etc.				

1.7. Proposed sub-contracts and firms involved. [Refer ITB Clause 4.3(k)]

Sanctions of the works	Value of Sub-contract	Sub-contractor (Name & Address)	Experience in similar work

Attach copies of certificates on possession of valid license for executing water supply/ sanitary work/ building electrification works [Reference Clause 4.5(d) & Clause 4.5(e)]

*1.8. Financial reports for the last five years: balance sheets, profit and loss statements, auditors" reports (in case of companies/corporation), etc. List them below and attach copies.

- 1.9. Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit, etc. List them below and attach copies of support documents.
- 1.10. Name, address, and telephone, telex, and fax numbers of the Bidders" bankers who may provide references if contacted by the Employer.
- 1.11. Information on litigation history in which the Bidder is involved.

Other Party(ies)	Employer	Cause of Dispute	Amount involved	Remarks showing Present Status

1.12. Statement of compliance under the requirements of Sub Clause 3.2 of the instructions to Bidders.

- 1.13. Proposed work method and schedule. The Bidder should attach descriptions, drawings and charts as necessary to comply with the requirements of the Bidding documents. [Refer ITB Clause 4.1 & 4.3(1)]
- 2.0 Bidders should provide any additional information required to fulfil the requirements of Clause 4 of the Instructions to the Bidders, if applicable.
 - (i) Affidavit (ii) Undertaking

SAMPLE FORMAT FOR EVIDENCE OF ACCESS TO OR AVAILABILITY OF CREDIT FACILITIES

(CLAUSE 4.2(I) OF ITB)

BANK CERTIFICATE

This is to certify that M/s. ______ is a reputed agency with a good financial standing.

If the contract for the work, namely ______ is awarded to the

above firms, we shall be able to provide overdraft/credit facilities to the extent of

Rs.______ to meet their working capital requirements for executing the above contract during the contract period.

(Signature)

Name of Bank

Senior Bank Manager

Address of the Bank

AFFIDAVIT

- 1. I, the undersigned, do hereby certify that all the statements made in the required attachments are true and correct.
- 2. The undersigned also hereby certifies that neither our firm M/s have abandoned any work Govt. of India/or any State or Govt. undertakings nor any contract awarded to us for such works have been rescinded on account of our default, during last five years prior to the date of this bid.
- 3. The undersigned hereby authorize(s) and request(s) any bank, person, firm or corporation to furnish pertinent information deemed necessary and requested by the Department to verify this statement or regarding my (our) competence and general reputation.
- 4. 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 agency.

(Signed by an Authorized Officer of the Firm)

(Title of Officer)

(Name of Firm)

DATE

UNDERTAKING

I, the undersigned do hereby undertake that our firm M/s ______

_____ would invest minimum cash up to 25% of the value of the work during

implementation of the Contract.

(Signed by an Authorized Officer of the Firm)

(Title of Officer)

(Name of Firm)

DATE

SECTION-3

CONDITIONS OF CONTRACT

Conditions of Contract

Table of Contents

A. General

- 1. Definitions
- 2. Interpretation
- 3. Language and Law
- 4. Engineer's Decisions
- 5. Delegation
- 6. Communications
- 7. Sub-contracting
- 8. Other Contractor
- 9. Personnel
- 10. Employer"s & Contractor"s Risks.
- 11. Employer"s Risks
- 12. Contractor"s Risks
- 13. Insurance.
- 14. Site Investigation Reports
- 15. Queries about the Contract Data.
- 16. Contractor to Construct the Works
- 17. The Works to be Completed by the Intended Completion date.
- 18. Approval by the Engineer
- 19. Safety
- 20. Discoveries
- 21 Possession of the Site
- 22. Access to the Site.
- 23. Instructions
- 24. Disputes Redressal System
- 25. Arbitration
- 26. Deleted

B. Time Control

- 27. Programme
- 28. Extension of the Intended Completion Date.
- 29. Deleted 50
- 30. Delays Ordered by the Engineer
- 31. Management Meetings
- 32. Early Warning

C. Quality Control

- 33 Identifying Defects
- 34 Tests
- 35 Correction of Defects
- 36 Uncorrected Defects.

D. Cost Control

- 37. Bill of Quantities
- 38. Changes in the Quantities
- 39. Variations
- 40. Payments for Variations
- 41. Cash Flow Forecasts
- 42. Payment Certificates
- 43. Payments.
- 44. Compensation Events
- 45. Tax
- 46. Currencies
- 47. Price Adjustment
- 48. Retention
- 49. Liquidated Damages(LD)
- 50. Bonus
- 51. Advance Payment.
- 52. Secured advance
- 53. Securities
- 54 Security deduction(retention)
- 55. Deleted
- 56. Cost of Repairs
- E. Finishing the Contract
- 57. Completion
- 58. Taking Over
- 59. Final Account
- 60. Operating and Maintenance Manuals.
- 61. Termination
- 62. Payment upon Termination
- 63. Property
- 64. Release from Performance

F. Special Conditions of Contract

CONDITIONS OF CONTRACT

A.GENERAL

1. Definitions

1.1 Terms which are defined in the Control Data are not also defined in the Conditions of Contract but keep their defined meanings. Capital initials are used to identify defined terms.

Bill of Quantities means the priced and completed Bill of Quantities forming part of

the Bid. **Compensation Events** are those defined in Clause 44 hereunder.

The **Completion Date** is the date of completion of the Works as certified by the Competent authority in accordance with Sub Clause 55.1.

The **Contract** is the contract between the Employer and the Contractor to execute, complete and maintain the Works. It consists of the documents listed in Clause 2.3 below.

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 has been accepted by the Employer.

The **Contractor's Bid** is the completed Bidding document submitted by the Contractor to the Employer and includes Technical and Financial bids.

The **Contractor 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. Any defect noticed during construction or after completion of work but up to defect liability period will be considered as defect.

The **Defects Liability Period** is the period named in the Contract Data and calculated from the Completion Date.

The **Employer** is the party who will employ the Contractor to carry out the Works.

The **Engineer** is the person named in the Contract Data (or any other competent person appointed and notified to the contractor to act in replacement of the Engineer-in-Charge) who is responsible for supervising the Contractor, administering the Contract, certifying payments due to the Contractor, issuing and valuing Variations to the Contract, awarding extensions of time, and valuing the Compensation Events.

Vice-Chancellor will constitute a work monitoring cum Quality control committee.

This committee will inspect the work in question. The observation/advice given by the committee will be binding on the Bidder/Engineer.

Equipment is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.

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 Competent authority 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 which is to have a mechanical, electrical, electronic or chemical or biological function.

The **Site** is the area defined as such in the Contract Data.

Site Investigation Reports are those which were included in the Bidding documents and are factual interpretative reports about the surface and sub-surface conditions 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 in 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 **Subcontractor** is a person or corporate body who has a Contract with the Contractor to carry out a part of the Work in the Contract which includes work on the Site.

Temporary Works are works designed, constructed, installed, and removed by the Contractor which 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** are what the Contract requires the Contractor to construct, install, and turn over to the Employer, as provided in the bid documents, BOQ and drawings etc. and as directed by the Engineer from time to time defined in the Contract Data.

2. Interpretation

2.1 In interpreting these Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance, Words have their normal meaning under the language of the Contract unless specifically defined. The Competent authority will provide instructions clarifying queries about the Conditions of Contract.

- 2.2 It 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 or priority:
 - (1) Agreement.
 - (2) Letter of Acceptance, notice to proceed with the works.
 - (3) Contractor"s Bid
 - (4) Contract Data.
 - (5) Conditions of Contract including Special Conditions of Contract.
 - (6) Specifications.
 - (7) Drawings
 - (8) Bill of quantities and
 - (9) Any other document listed in the Contract Data as forming part of the Contract.

3. Language and Law

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

4. Engineer's Decisions.

4.1. Except where otherwise specifically stated, the Engineer will decide contractual matters between the Employer and the Contractor in the role representing the Employer.

5. Delegation

5.1 The Engineer may delegate any of his duties and responsibilities to other people except to the Adjudicator after notifying the Contractor and may cancel any delegation after notifying the Contractor.

6. Communications

6.1. Communications between parties which are referred to in the conditions are effective only when in writing. A notice shall be effective only when it is delivered (in terms of India Contract Act.).

7. Sub-contracting

7.1. The Contractor may sub-contract any portion of work, up to a limit specified in Contract Data, with the approval of the Competent authority but may not assign the Contract without the approval of the Employer in writing. Sub-contracting does not alter the Contractor's obligations.

8. Other Contractors

8.1. 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. The Contractor shall as referred to in the Contract Data, 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.

9. Personnel

- 9.1. The Contractor shall employ the key personnel named in the Schedule of Key Personnel as referred to in the Contract Data to carry out the functions stated in the Schedule or other personnel approved by the Competent authority The Competent authority will approve any proposed replacement of key personnel only if their qualifications, abilities, and relevant experience are substantially equal to or better than those of the personnel listed in the Schedule. In case of non-employment of key personnel action can be taken as per clause 59 of conditions of contract & deduction will be made from the bills / due payment of the contractor on account of salary per month of key personnel as per Annexure-II of Section-I.
- 9.2. If the Competent authority asks the Contractor to remove a person who is a member of the Contractor^{**}s staff or his 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 work in the Contract.

10. Employer's and Contractor's Risks.

10.1. 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.

11. Employer's Risks

11.1 The Employer is responsible for the excepted risks which are (a) in so far as they directly affect the execution of the Works in India, the risks of war, hostilities, 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), 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.

12. Contractor's Risks.

12.1. 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 are the responsibility of the Contractor.

13. Insurance.

- 13.1. The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover (contractor all risks policy) from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles states in the Contract Data for the following events which are due to the Contractor's risks:
 - (a) Loss or damage to the Works, Plant and Materials;
 - (b) Loss of or damage to Equipment.
 - (c) Loss of or damage of property (except the Works, Plant, Materials and Equipment) in connection with the Contract; and
 - (d) Personal injury or death of workers at site.
 - 13.2. Policies and certificates for insurance shall be delivered by the Contractor to the Competent authority before the Start Date. All such insurance shall provide for

compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

- 13.3 If the Contractor does not provide any of the policies and certificates required, the Employer may effect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due. 14% Departmental charges over payment of premiums will also be recovered from the contractors.
- 13.4 Alterations to the terms of insurance shall not be made without the approval of the competent authority.

14. Site Investigation Report.

14.1. The Contractor, in preparing the Bid, shall rely on any site Investigation Reports referred to in the Contract Data, supplemented by any information available to the Bidder. In case such information is not available in the contract data, the Contractor shall gather such information from the office of Engineer-In- Charge. No claim on account of non availability will be entertained.

15. Queries about the Contract Data.

15.1. The Competent authority will clarify queries on the Contract Data.

16. Contractor to Construct the Works

16.1. The Contractor shall construct and install the Works in accordance with the Specification 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 if they comply with the Specifications and Drawings.
- 18.1. The Contractor shall be responsible for design of Temporary Works.
- 18.2. The Engineer-in-Charge"s approval shall not alter the Contractor"s responsibility for design of the Temporary Works.
- 18.3. The Contractor shall obtain approval of third parties to the design of the Temporary Works where required.
- 18.4. All Drawings prepared by the Contractor for the execution of the temporary or permanent

Works, are subject to prior approval by the Competent authority before their use.

19. Safety

19.1. The Contractor shall be responsible for the safety of all activities on the Site.

20. Discoveries

20.1. Anything of historical or other interest or of significant value unexpectedly discovered on the Site is the property of the Employer. The Contractor is to notify the Competent authority of such discoveries and carry out the Engineer-in-Charge's instructions for dealing with them.

21. Possession of the Site

21.1. The Employer shall give possession of 80 % of the Site to the Contractor at time signing the agreement. Balance 20% due course of time but before expiry of 50% time limit. If possession of a part is not given by the date stated in the Contract Data the Employer is deemed to have delayed the start of the relevant activities and this will be Compensation Event.

22. Access to the Site

22.1. The Contractor shall allow the Engineer-in-Charge/ Employer and any person authorized by the Engineer-in-Charge/Employer access to the Site, to any place where work in connection with the Contract is being carried out or is intended to be carried out and to any place where materials or plant are being manufactured/fabricated/assembled for the works for inspection. Advice/Instruction as per agreement will be followed by contractor.

23. Instructions

23.1. The Contractor shall carry out all instructions of the Competent authority pertaining to works which comply with the applicable laws where the Site is located.

24. Dispute Redressal System

24.1 In case of dispute, the agency will make an appeal to the Appellant Authority i.e. Vice Chancellor who will decide the issue within 180 days and his decision will be final and no arbitration is permissible as per PWD Code

- 25. Deleted
- 26. Deleted

B. TIME CONTROL

27. Programme

- 27.1. Within the time stated in the Contract Data the Contractor shall submit to the Competent authority for approval a Programme showing the general methods, arrangements, order, and timing for all the activities in the Works along with monthly cash flow forecast.
- 27.2. 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 work including any changes to the sequence of the activities.
- 27.3. The Contractor shall submit to the Engineer-in-Charge, for approval, an updated Programme at intervals no longer than the period stated in the Contract Data. If the Contractor does not submit an updated Programme within this period, the Competent authority may withhold the amount stated in the Contract Data 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.
- 27.4. 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 Competent authority again at any time. A revised Programme is to show the effect of Variations and Compensation Events.

28. Extension of the Intended Completion Date

- 28.1. The Engineer may extend the Intended Completion Date, with the approval of the Vice Chancellor, 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 work and which would cause the Contractor to incur additional cost.
- **28.2.** The Engineer with the approval of authority competent to grant time extension as mentioned above shall decide whether and by how much to extend the Intended Completion Date within 60 days of the Contractor asking the Competent authority for a decision upon the effect of Compensation Events or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or 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.
- 28.3. The Engineer shall within 14 days of receiving full justification from the contractor for extension of Intended Completion Date refer to the Employer. The employer shall refer the case to the authority competent to grant time extension as above within further 28 days for his decision.

29. Deleted

30. Delays Ordered by the Engineer-in-Charge

30.0. The Competent authority may instruct the Contractor to delay the start or progress of any activity within the Works.

31. Management Meetings

- 31.1. Either the Competent authority or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure. Minimum One meeting in each quarter is mandatory for smooth running of works. Proceedings of meeting may be circulated to employer. The employer or his representative can also call such management meeting if necessary.
- 31.2. The Competent authority shall record the business of management meetings and is to provide copies of his record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken is to be decided by the Competent authority either at the management meeting or after the management meeting and stated in

writing to all who attended the meeting.

32. Early Warning

- 32.1. The Contractor is to warn the Competent authority at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price or delay the execution of works. The Competent authority may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate is to be provided by the Contractor as soon as reasonably possible.
- 32.2. The Contractor shall cooperate with the Competent authority in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Engineer-in-Charge.

C. QUALITY CONTROL

33. Identifying Defects

33.1. The Competent authority shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Competent authority may instruct the Contractor to search for a Defect and to uncover and test any Work that the Competent authority considers may have a Defect.

34. Tests

34.1. If the Competent authority instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect the test shall be a Compensation Event.

35. Correction of Defects

- 35.1. The Competent authority shall give notice to the Contractor of any Defect (structural, technical or routine maintenance nature) before the end of the Defects Liability Period, which begins at Completion and is defined in the Contract Data. The Defects Liability period shall be extended for as long as Defects remain to be corrected. The defects shall include the routine maintenance activities as well.
- 35.2. Every time notice of a Defect is given the Contractor shall correct the notified Defect within the length of time specified by the Engineer-in-Charge's notice.

36. Uncorrected Defects

36.1. If the Contractor has not corrected a Defect within the time specified in the Engineerin-Charge's notice, the Competent authority will assess the cost of having the Defect corrected, and the Contractor will pay double of this amount.

D. COST CONTROL

37. Bill of Quantities

- 37.1. The Bill of Quantities shall contain items for the construction, installation, testing and commissioning work to be done by the Contractor.
- 37.2. The Bill of Quantities is used to calculate the Contractor Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item.
- 37.3. The contractor will submit the bill on Performa given by the Engineer showing BOQ/executed quantity and reasons of variations if any every month by 07th of succeeding month. Engineer will check, verify and put pass order within 07 days from the receipt of bill and submit to employer for payment and employer will make payment within 14 days from the date of submission of bill by the Engineer.

38. Changes in the Quantities & Payment/Variations

38.1 The quantities of all items given in the Schedule are tentative. These can be increased or decreased as per working Architectural drawings/ structural"s drawings & nothing extra shall be paid. The Competent authority shall have power to make any alteration/omission addition to or substitutions for the original specifications, drawing, designs and instructions that may appear to him to be necessary or advisable during the progress of the work and the Contractor shall be bound to carry out the work in accordance with any instructions which may be given to him in writing signed by the Competent authority and such alterations, omissions, additions or substitutions shall not invalidate the contract, and any altered, additional or substituted work which the Contractor may be directed to do in the manner above specified as part of the work shall be carried out by the Contractor on the same terms & conditions in all respects on which he agreed to do the main work, and at the same rates as are specified in the tender for the main work or as provided in Haryana Schedule of Rates including applicable premiums. The contractor is bound to complete the building as per Architectural drawings. The contractor is supposed to see architectural drawings before bidding and make his own assessment.

- 38.2 If the altered additional or substituted work includes any class of work, for which no rate is specified in the contract, than such class of work shall be carried out at the rates entered in the Haryana Schedule of rates plus ceiling premium subject to the same percentage above or below as per financial statement of the contract and if such class of work is not entered in the schedule of rates then the Contractor shall within seven days of the date of the receipt of the order to carry out the work inform the Competent authority of the rate which it is his intention to charge for such class of work. The rate of NS item may be prepared on the basis of market rate of material/labour in case labour is available in HSR, HSR rate may be applied while preparing NS rates. The engineer in charge will decide the rate on basis of proper quotations within Next 07 days. IF the Contractor is not satisfied with the rate approved by the Engineer, he will execute the work and represent the issue to the Vice-Chancellor. The Vice-Chancellor will get the issued examined from the monitoring committee approved by the Vice-Chancellor and the rate decided by the committee will be binding on the contractor.
- **39**. All Variations shall be included in updated Programmes produced by the Contractor.

40. Deleted

41. Cash Flow Forecasts

41.1. When the Programme is updated, the contractor is to provide the Competent authority with an updated cash flow forecast.

42. Payment Certificates

- 42.1. The contractor will submit the bill on Performa given by the engineer showing BOQ/executed quantity and reasons of variations if any every month by 07th of succeeding month. Engineer will check, verify and put pass order within 14 days from the receipt of bill and submit to employer for payment and employer will make payment within 28 days from the date of submission of bill by the contractor. Even if no work is done by the contractor, he will submit bill of nil amount but submission of bill every month is mandatory.
- 42.2. Deleted.
- 42.3. The value of work executed shall be determined by the Engineer-in-Charge.
- 42.4. The value of work executed shall comprise the value of the quantities of the Compensation Events.
- 42.5. The value of work executed shall include the valuation of Variations and Compensation Events.
- 42.6. The Competent authority may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

43. Payments

- 43.1 Items of the Works for which no rate or price has been entered in tender not be paid for by the Employer and shall be deemed covered by the other rates and price in the Contract.
- 43.2 In case any other HSR items beyond BOQ is got executed during execution of work, Payment for such item will be made at the rate (HSR + CP) +/- accepted premium on HSR items of the tender. Items beyond BOQ can be executed and paid as per above language. No claim of the contractor will be entertained for such executions.

44. Compensation Events

- 44.1. The following are Compensation Events unless they are caused by the Contractor;
 - () The Employer does not give access to 80% of the Site by the Site Possession Date stated in the Contract Data.
 - (a) The Employer modifies the schedule of other contractors in a way which affects Page **46** of **119**

the work of the contractor under the contract.

- (b) The Competent authority orders a delay or does not issue drawings, specifications or instructions required for execution of works due to which the work is delayed. However, these can be issued from time to time during the execution of the work.
- (c) The Competent authority instructs the Contractor to uncover or to carry out additional tests upon work which is then found to have no Defects.
- (d) The Competent authority does not approve of a subcontract to be let, within 30 days.
- (e) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of Letter of Acceptance from the information issued to Bidders (including the Site Investigation Reports), from information available and from a visual inspection of the site.
- (f) The Competent authority gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety or other reasons.
- (g) Other contractors, public authorities, utilities or the Employer does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor.
- (h) The advance payment is delayed, beyond 45 days after receipt of application and bank guarantee.
- (i) The effect on the Contractor of any of the Employer's Risks.
- (j) The Competent authority unreasonably delays issuing a Certificate of Completion.
- (k) Other Compensation Events listed in the Contract Data or mentioned in the Contract.
- 44.2. If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date is extended. The Competent authority shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.
- 44.3. As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast cost has been provided by the Contractor, it is to be assessed by the Competent authority and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Competent authority shall adjust the Contract Price based on Engineer-in-Charge's own forecast. The Competent authority will assume that the Contractor will react competently and promptly to the event.
- 44.4. The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor not having given early warning or not having cooperated with the Engineer-in-Charge.

45. Tax

45.1. The rates quoted by the Contractor shall be deemed to be inclusive of the GST and any other taxes 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.

46. Currencies

46.1. All payments shall be made in Indian Rupees.

47. Deleted

48. Retention Money

48.1 5% (six percent) retention money shall be deducted from running bills of the agreement amount/enhanced amount and shall be refunded 100% within 03 months after completion of work to the satisfaction of Engineer-in-Charge.

49. Liquidated Damages (LD)

- 49.1. The Contractor shall pay liquidated damages to the Employer at the rate per day stated in the Contract Data for each day that the Completion Date is later than the Intended Completion Date (for the whole of the works or the milestone as stated in the contract data). The total amount of liquidated damages shall not exceed the amount defined in the Contract Data. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages does not affect the Contractor''s liabilities.
- 49.2. If the Intended Completion Date is extended after liquidated damages have been paid, the Competent authority shall correct any over payment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the over payment calculated from the date of payment to the date of repayment at the rates specified in Sub Clause 43.1. If the contractor achieves the next mile stone in time, then LD imposed will be waived off automatically and payment shall be released without any interest in the next bill due to the contractor.
- 49.3. If the Contractor fails to comply with the time for completion as stipulated in the tender, then the contractor shall pay to the employer the relevant sum stated in the Contract Data as Liquidated damages for such default and not as penalty for everyday or part of day which shall elapse between relevant time for completion and the date stated in the taking over certificate of the Whole of the works on the relevant section, subject to the limit stated in the contract data. The engineer may, without prejudice to any other method of recovery deduct the amount of such damages from any money due or to become due to the contractor. The payment or deduction of such damages shall not relieve the contractor from his obligation to complete the works on from any other of his obligations and liabilities under the contract.

50 Secured Advance

The Competent authority shall make advance payment in respect of materials intended for but not yet incorporated in the Works in accordance with conditions stipulated in the Contract Data.

- 51
- 51.1 The Engineer shall make advance payment to the Contractor of the amounts stated in the Contract Data by the date stated in the Contract Data, against provision by the Contractor of an Unconditional Bank Guarantee in a form and by a bank acceptable to the Engineer in amounts and currencies equal to the advance payment. The guarantee shall remain effective until the advance payment has been repaid, but the amount of the guarantee shall be progressively reduced by the amounts repaid by the Contractor. Interest will be charged on the advance payment
- 51.2 The Contractor is to use the advance payment only to pay for Equipment, Plant and Mobilization expenses required specifically for execution of the Works. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Engineer-in-Charge
- 51.3 The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor. Following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment is assessing valuations of work done, Variations, price adjustments, Compensation Events, or Liquidated Damages.

52. Securities

52.1. The Performance Security (Including additional security 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 an amount and form and by a bank or surety acceptable to the Employer, and denominated in Indian Rupees. The Performance Security shall be valid until a date 60 days from the date of expiry of Defects Liability Period and the additional

security for unbalanced bids shall be valid until a date 60 days from the date of issue of the certificate of completion.

53. Deleted

54. Cost of Repairs

54.1. 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 the Contractor's cost if the loss or damage arises from the Contractor's act or omissions.

E. FINISHING THE CONTRACT

55. Completion

55.0. The Contractor shall request the Competent authority to issue a Certificate of Completion of the Works and the Competent authority will do so upon deciding that the Work is completed.

56. Taking Over

56.1. The Employer shall take over the Site and the Works within fifteen days of the Competent authority issuing a certificate of Completion.

57. Final Account

57.1. The Contractor shall supply to the Competent authority a detailed account of the total amount that However, the final bill of the work will be passed by the Engineers within 90 days from the date

of completion. The final account and final bill are different in nature. The Competent authority shall issue a Defect Liability Certificate and certify any final payment that is due to the Contractor within 56 days after the end of defect liability period if it is correct and complete. If it is not, the Competent authority 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 Competent authority shall decide on the amount payable to the Contractor and issue a payment certificate, within 56 days of receiving the Contractor's revised account.

58. Operating and Maintenance Manuals

- 58.1. If "as built" Drawing and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the Contract Data.
- 58.2. 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-in-Charge"s approval, the Competent authority shall withhold the amount stated in the Contract Data from payments due to the Contractor.

59. Termination

- 59.1. The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.
- 59.2. Fundamental breaches of Contract include, but shall not be limited to the following:
 - (a) The Contractor stops work for 20 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 Competent authority instructs the Contractor to delay the progress of the Works and the instruction is not withdrawn within 28 days;
- (c) the Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
- (d) a payment certified by the Competent authority is not paid by the Employer to the Contractor within 56 days of the date of the Engineer-in-Charge"s certificate;
- (e) The Competent authority gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Engineer-in-Charge;
- (f) The Contractor does not maintain a security which is required.
- (g) the Contractor has delayed the completion of miles stone/ work by 30 days and
- (h) If the Contractor, in the judgment of the Employer has engaged in corrupt or fraudulent practices in competing for or in executing the Contract
- (i) Non-employment of key personnel as per clause 9 and Non deployment of machinery and establishment of labs.

For the purpose of this paragraph " corrupt practice" means the offering, giving, receiving or soliciting of 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 Borrower, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition."

- 59.2. When either party to the Contract gives notice of a breach of contract to the Competent authority for a cause other than those listed under Sub Clause 59.2 above, the Competent authority shall decide whether the breach is fundamental or not.
- 59.3. Notwithstanding the above, the Employer may terminate the Contract for convenience.
- 59.4. If the Contract is terminated the Contractor shall stop work immediately, make the Site safe and secure and leave the Site as soon as reasonable possible.

60. Payment upon Termination

60.1. 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 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. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor the difference shall be a debt payable to the Employer.

60.2. If the Contract is terminated at the Employer"s convenience or because of a fundamental breach of Contract by the Employer, the Competent authority shall issue a certificate for the value of the work done, the cost of balance material brought by the contractor and available at site, 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 and less advance payments received up to the date of the certificate, less other recoveries due in terms of the contract and less taxes due to be deducted at source as per applicable law.

61. Property

61.1. All materials on the Site, Plant, Equipment, Temporary Works and Works are deemed to

be the property of the Employer, if the Contract is terminated because of a Contractor"s default.

62. Release from Performance

62.1. 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 Competent authority 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.

F. SPECIAL CONDITIONS OF CONTRACT

1. <u>LABOUR</u>:

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-in-Charge, deliver to the Competent authority a return in detail, in such form and at such intervals as the Competent authority 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 other information as the Competent authority may require.

2. <u>COMPLIANCE WITH LABOUR REGULATIONS :</u>

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, regulations, 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 the 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 make 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/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, the Engineer-in-Charge/Employer shall have the right to deduct any money due to the Contractor including his amount of performance security. The Employer/Competent authority 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 employees 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 TO ESTABLISHMENTS ENGAGED IN BUILDING AND OTHER CONSTRUCTION WORK.

a) Workman Compensation Act 1923:- The Act provides for compensation in case of

injury by accident arising out of and during the course of employment.

- b) <u>Payment of Gratuity Act 1972</u>:- 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 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) Employee P.F. and Miscellaneous Provision Act 1952:- The Act Provides for monthly

contributions by the employer plus workers @10% each. The benefits payable under the Act are:

- (i) Pension or family pension on retirement or death, as the case may be.
- (ii) Deposit insurance linked with death of the worker during Employment.
- (iii) Payment of P.F. accumulation or retirement/death etc.
- d) <u>Maternity Benefit Act 195</u>1:- The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.
- (e) <u>Contract Labour (Regulation & Abolition) Act 1970</u>:- 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 licence 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) <u>Minimum Wages Act 1948</u>:- 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, Runways are scheduled employments.
- (g) <u>Payment of Wages Act 1936:</u> 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) <u>Equal Remuneration Act 1979</u>:- 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) <u>Payment of Bonus Act 1965</u>:- Bonus will be paid as per latest policy of the Govt. of India.
- (j) <u>Industrial Disputes Act 1947</u>:- The Act lays down the machinery and procedure for resolution of Industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.
- (k) <u>Industrial Employment (Standing Orders) Act 1946</u>:- It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the States and Central Government to 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and get the same certified by the designated Authority.
- <u>Trade Unions Act 1926</u>:- 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) <u>Child Labour (Prohibition & Regulation) Act 1986</u>:- 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 inter-state 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 establishment 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 accommodations 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 10 persons or more with aid of power or 20 or more persons without the aid of power engaged in manufacturing process.

SECTION-4

CONTRACT DATA

CONTRACT DATA

Items marked "N/A" do not apply in this Contract.

	marked WA do not apply in this contract.	
Sr.		
No.	Description	
1	Description The Employer	Registrar
1	The Employer	Registrai
	Name & Address :-	Registrar
		CRSU, JIND
2	Name & Address of Engineer-	Will be notify later on
	0	
	The Defects Lightlity Period is 26 months	
3	The Defects Liability Period is 36 months from the date of completion of work	36 Months
	from the date of compretion of work	
	The Start Date shall be 10 days after the date	20 Davis
4	of issue of the letter to proceed.	30 Days
	The Intended Completion Date for the whole	
5	of the work is "06 Months" after start of	06 Months
	work with the following milestones:	
6	Milestone dates:	
	Physical works to be completed (Financial	
	output)	<u>Period from the start date</u>
	Milestone 1 i.e. 25%	35% of the stipulated time
	Milestone 2 i.e. 50%	65% of the stipulated time
	Milestone 3 i.e. 75%	85% of the stipulated time
		100% of the stipulated
	Milestone 4 i.e. 100%	time
7	The site is located in district Jind.	
•	The following documents also form part of	
8	the Contract i.e. <u>undertaking of the bidder if</u>	
	any. The law which applies to the Contract is the	
9	The law which applies to the Contract is the law of Union of India	
	The language of the Contract documents is	
10	English	
	Limit of subcontracting 30% of the Initial	
11	Contract Price	

12	The Schedule of Key Personnel As per AnnexII of Section I	[Cl.9]
13	 13.1 The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover (contractor all risks policy) from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles states in the Contract Data for the following events which are due to the Contractor's risks: (a) Loss or damage to the Works, Plant and Materials; (b) Loss of or damage to Equipment. (c) Loss of or damage of property (except the Works, Plant, Materials and Equipment) in connection with the Contract; and (d) Personal injury or death of workers at site. 13.2. Policies and certificates for insurance shall be delivered by the Contractor to the Engineer-in-Charge before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required. 	
	 13.5 If the Contractor does not provide any of the policies and certificates required, the Employer may effect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due. 14% Departmental charges over payment of premiums will also be recovered from the contractors. Alterations to the terms of insurance shall not be made without the approval of the competent authority 	
14	The Site Possession Date shall be the date of issue of acceptance letterIssue of Acceptance Letter	[C1.14]

15	Name of the Dispute Review Expert	Deleted	[C1.24]
16	Deleted.		[C1.26]
17	The period for submission of the programme for approval of Engineer shall be 21 days from the issue of Letter to proceed.	21 Days	[C1.27.1]
18	The period between programme updates shall be <u>90</u> days.	90 Days	[C1.27.3]
19	The amount to be withheld for late submission of an updated programme shall be 0.25% of contract price subject to max. of Rs. 5.00 lacs.		[C1.27.3]
20	The following events shall also be Compensation Events:		
(i)	Substantially adverse ground conditions encountered during the course of execution of work not provided for in the bidding document		
(ii)	Removal of underground utilities detected subsequently.		
(iii)	Significant change in classification soil requiring additional mobilization by the contractor, e.g. Ordinary soil to rock excavation.		
(iv)	Removal of unsuitable material like marsh, debris dumps, etc. not caused by the contractor.		[C1.44]
(v)	Artesian conditions		
(vi)	Seepage, erosion, landslide.		
(vii)	River training requiring protection of permanent work.		
(viii)	Presence of historical, archaeological or religious structures, monuments interfering with works.		
(ix)	Restriction of access of ground imposed by civil, judicial, or military authority.		
21	The currency of the Contract is Indian Rupees.		[C1.46]
22	The proportion of payments retained (retention money) shall be 6% from each bill subject to a maximum of 5% of the contract/enhanced amount.		[Cl.48]
23	Amount of liquidated damages for delay in completion of works	For Whole of work 1/500 of the Initial Contract Price per day subject to maximum of 10% of the contract value.	[Cl.49]
		For Milestones (as specified, in item 6 of Contract Data)	

		1/500 of the initial contract	
		price per day subject to maximum of 10% of the contract value.	
		10 per cent of the Initial	
24	Maximum limit of liquidated damages for delay in completion of work/ milestones	Contract Price rounded off to the nearest thousand.	[Cl.49]
25	Price Adjustment	Deleted	[Cl.47]
26	Mobilization Advance	An interest bearing mobilization advance up to the extent of 5% of contract value is permissible/allowed against unconditional and irrecoverable bank guarantees equivalent to the mobilization advance to be furnished by the contractor valid up to schedule time limit of the work. Interest @11% per annum shall be charged against the mobilization advance given to the contractor. The recovery of the mobilization advance together with interest shall be done through percentage deductions from interim/running payments, in the manner prescribed in the contract. The total amount of mobilization advance along with interest will be recovered within 80% of the time stipulated for completion. The mobilization bank guarantee shall be released after the recovery of full mobilization advance, including interest thereon. In case, of slow progress of work, the Employer/Engineer-In- Charge comes to a conclusion that the total amount of mobilization advance with interest cannot be recovered by the time 80% of stipulated time is over, the bank guarantee(s)	[Cl.51]

		furnished by the contractor
		may be encashed.
		In case the contractor
		requires an advance on the
		security of materials brought
		to site, Engineer-In-Charge
		may, on written request from
		the contractor sanctioned the
		advance up to an amount
		75% or as decided by the
		Competent authority of the
		value (as assessed by
		themselves) as stated in the
		Contract Data of such
		materials, provided thereof
		imperishable nature and that
		a formal agreement is drawn
		up with the contractors under
		which Govt. secures a lien on
		the materials and is
		safeguarded against losses
		due to the contractor
		postponing the execution of
		the work or misuse of the
		material and against the
	Secured advance 75% of Invoice value or	expense entailed for their
27	DNIT rate whichever is lower for Non-	proper watch and safe
	perishable materials brought to site	custody. If the material is fire
		prone or can be destroyed fully/partially on storage, it
		shall be desirable to have it
		first insured by the
		contractor. Cases in which a
		contractor, whose contract is
		for finished work, requires an
		advance on the security of
		materials brought to site.
		Divisional Officer may, on
		written request from the
		contractor, sanction the
		advance up to an amount of
		75% or as decided by the
		competent authority of the
		value (as assessed by
		themselves) of such
		materials, provided they are
		of an imperishable nature and
		that a formal agreement is
		drawn up with the contractor
		under which Government
		secures a lien on the
		materials and is safeguarded

against losses due to the contractor postponing the execution of the work or misuse of the material and against the expense entailed for their proper watch and safe custody. If the materials	
is fire prone or can be destroyed fully/partially on storage, it shall be desirable to have it first insured by the contractor.	

Repayment of Secured advance.

28 The advance shall be repaid from each succeeding monthly payments to the extent materials [for which advance was previously paid pursuant to Clause 51.4 of G.C.C.] have been incorporated into the Works.

The Securities shall be for the following minimum amounts equivalent as a percentage of the Contract Price

Performance Security for 5 per cent of contract price plus Rs..... (to be decided after evaluation of the bid) as additional security in terms of ITB Clause 29.5.

- 29 The standard form of Performance Security acceptable to the Employer shall be an <u>unconditional</u> Bank Guarantee of the type as presented in Section 8 of the Bidding Documents.
- 30 The date by which "as-built" drawings including PH/EI fixations (in scale as directed) in 2 sets are required is within 28 days of issue of certificate of completion of whole or section of the work, as the case may be.
- 31 The amount to be withheld for failing to supply "as-built" drawings by the date required is 1% of the contract value.
- 32 The following events shall also be fundamental breach of contract:"The Contractor has contravened Sub-clause 7.1 and Clause 9 of conditions of contract."
- $_{32t}$ The Contractor has contravened Sub-clause 7.1 and Clause 9.0 of GCC.

If the Contract is terminated on account of fundamental breach of Contract by the Contractor, then the additional penalty for not completing the work shall be 20 percent of the value of the work not completed in addition to the Liquidated damages, [Cl:60]

(To be calculated as per Clause 23 of contract date)

SECTION-5

TECHNICAL SPECIFICATIONS

General Description:

Laboratory furniture must be tested as per SEFA-8M standards in SEFA Approved labs with latest 2016 Guidelines published by SEFA. All modular construction & design must be made high quality virgin CRCA MS/GI sheets as defined against each item coated with at least 50 to 60 μ m Epoxy Powder Coated in panel form. The design should have provision for reconfiguration for change in layout using simple tooling and should provide independent access to the utilities installed, electrical panel & instrumentation panel. It should be removable without removing other panels.

All CRCA sheet/GI components should be of superior brand (TATA Steel / Jindal) and are to be fabricated by precision shearing, levelling, and notching, piercing, machines to achieve consolidated dimensions within close tolerances under the strictest quality checks and assembled with the aid of fixtures. Exposed welding marks should be polished smooth to improve aesthetic. Corner intersections of vertical and horizontal members should in the same plane with bolted joints and should be suitably aligned. Laboratory Work Stations of 900 mm height shall be available in metallic construction and designed to have completely flexible modular system. Each module will have independent base frame. Necessary leg spaces are to be provided between two modules wherever required with foot rest. Rear portion of the leg space are covered with the enclosure panel. Work table should consist of:

a) SEFA-8M Standards heavy duty under cabinets & drawers:

SEFA-8 Standards heavy duty Under-module, comprising of one drawer - one shutter and adjustable height shelf, all drawers and only shutters. Cabinet shutter will be in double skin construction and shall be provided with heavy duty, Hettich/Hoeffel hinges and positive catch arrangement. Shutter and drawer handles are also provided with recessed designed in aluminium const. with epoxy powder coating. The under module shall be fabricated out of heavy gauge special grade galvanized Iron sheet in weldless construction and shall be finished with pure epoxy coating for

extraordinary corrosion resistance.

- Detailed specifications and thickness of CRCA/GI items in each module:
- Cabinet end panels; min. 0.9 mm or better thick CRCA/GI Sheet
- Cabinet rear panel; min. 0.9 mm thick CRCA/GI sheet
- Cabinet drawers; 1.0 mm thick CRCA/GI Sheet
- Cabinet shutters & drawer front panels; double skin const, min 0.8 mm thick CRCA/GI sheet
- C-Frame/D-Frame should be 1.2 mm thick CRCA pipe
- The Manufacturer modular system must be of SEFA-10 / SEFA 8M compliant and report must be submitted (Scientific Equipment & Furniture Association), OHSAS 18001:2015, ISO 9001: 2015, ISO 14001:2015
- The modular laboratory should be as per the approved layout. All laboratory furniture system should have international standard of manufacturing. All cabinets should be epoxy powder coated from Azko Nobel and certificate to be provided after the commissioning.
- The manufacturer/supplier must have executed similar project equal to the 90% value of the tender and copy of the same must be attached along with tender.

Detailed Technical Specifications

1.00	NS items
1.01	Providing and Fixing of Laboratory Module 750 with C-Frame/D-Frame/D-Frame complete in all aspects
	:-
	Providing and Fixing Complete set C-Frame/D-Frame/D-Frame Modular Floor Storage Unit of Double
	door and single drawer with Cam lock: width 750mm x depth 530mm x height 635mm, Epoxy powered
	50-60 micron coated 0.9mm metal sheet CRCA, 2 sets of hinges, Drawer 0.9mm CRCA sheet,
	Hettich/Hafeil sliding channels and SS Door handles. 'C'' Frames of Size D-700 x W-30 mm H-780
	(Sitting) & H-890mm (Standing) Vertical Legs depending on as actual site requirements and
	SEFA10/SEFA8M requirements MOC CRCA/MS pipe with Phosphating pretreatement 'Connecting Sets
	CRCA 1.2mm, Epoxy powder coated 50-60micron, (4 pcs) of Size L-1500 mm for joining 'C' Frame Structure, Z Black Granite (Acid/Chemical Resistance)17 (\pm 1) mm thick with high quality granite in jet
	black colour with pre moulded, pre polished edges, Edge moulding and V-grooving, shamphering The
	overhang of granite should be 30 mm – 50mm. at front side of under storage cabinets, Neoprene Strip
	(2.5" wide & 6 mm thick) backing material for granite should be NEOPRENE fixing with SR-998 glue,
	As required the cover Panel End side panel for main unit, 600mm D, 900mm Ht. Epoxy powdered coated
	0.9mm metal sheet virgin steel CRCA, cabinet frame 1.2mm thickness. Complete in all respect as
	directed and upto the entire satisfaction of Engineer in Charge.
1.02	
	Providing & Fixing with SITC of Leg Space of L-750 with Back Cover Panel, Epoxy powdered coated
	0.9mm Back Cover Panel CRCA, Top Frame MS Pipe, 'Providing and Fixing Z Black Granite
	(Acid/Chemical Resistance)17 (±1) mm thick with high quality granite in jet black colour with pre
	moulded, pre polished edges, Edge moulding and V-grooving, shamphering The overhang of granite
	should be 30 mm – 50mm. at front side of under storage cabinets, Neoprene Strip (2.5" wide & 6 mm
	thick) backing material for granite should be NEOPRENE fixing with SR-998 glue. Complete in all
1.03	respect as directed and upto the entire satisfaction of Engineer in Charge. Providing and fixing of Laboratory 750mm PP Sink Module with accessories complete Unit in all aspects:
1.05	Providing and fixing of Eaboratory 750mm 11 Sink Module with accessories complete onit in an aspects. Providing and fixing of Sink Storage unit of width 750mm, Depth 530 mm, ht of unit 635 mm with two
	shutters Epoxy powdered 50-60micron coated 0.9mm metal sheet CRCA, 2 sets of SS/PP hinges, and SS
	Door handles. Providing and Fixing Sinks and Accessories Polypropylene Sinks (Drop-in) of overall size
	548L x 398W x 235D (mm), (Black color) Classic timeless appearance in matt finish, non rusting and easy
	to maintain with bottle trap. (Drop-in) of overall size 548L x 398W x 235D (mm), non-rusting and easy to
	maintain with bottle trap. Waste Coupling For PP/Ceramic/SS Drop In Sink, Anti-Siphon bottle trap, Size :
	38mm dia. (Black color) Serated Flexible connector to connect sink to the waste line, length 1mt. and
	38mm dia. Serated Flexible connector to connect sink to the waste line, length 1mt. and 38mm dia.
	Providing and Fixing Water Faucets for Sink unit shall have 3 way (2 straight+1 swan neck) turn type
	water faucets made up of Brass with epoxy powder coating of minimum weight 1550 gm to 1600 gm. It should be PH and rust resistant. The switch valve cast to be made of ceramic that can avoid acid wear. The
	outlet produced in PVC, has detachable hose nozzles, allay pressure, changeable high-pressure outlet
	constructed or normal clean outlet control of water flow faucet immediately. Granite (Acid/Chemical
	Resistance)18 (± 2) mm thick with high quality granite in jet black colour with pre moulded, pre polished
	edges, Edge moulding and V-grooving, shamphering The overhang of granite should be 30 mm – 50mm. at
	front side of under storage cabinets. Complete in all respect as directed and upto the entire satisfaction of
	Engineer in Charge.
1.04	
	lock: width 600mm x depth 530mm x height 635mm, Epoxy powdered coated 0.9mm metal sheet CRCA,
	cabinet frame 1.2mm thickness with 2 sets of SS/PP hinges, Drawer 0.9mm CRCA sheet, Hettich/Hafeil
	sliding channels and SS Door handles, with Drawer padding, C" Frames of 'C" Frames of Size D-700 x
	W-30 mm H-780 (Sitting) & H-890mm (Standing) Vertical Legs depending on as actual site
	requirements. and SEFA10/SEFA8M requirements MOC CRCA/MS pipe with Phosphating pretreatement, Connecting Sets (4 pcs) of Size L-1200 mm for joining 'C' Frame Structure with
	'Connecting Sets (4 pcs) of Size L-1200 mm for joining 'C' Frame Structure Providing and Fixing Z
	Black Granite (Acid/Chemical Resistance) 18 (± 2) mm thick with high quality granite in jet black colour
	with pre moulded, pre polished edges, Edge moulding and V-grooving, shamphering The overhang of
	granite should be 30 mm – 50mm. at front side of under storage cabinets
1.05	Laboratory Leg Space 6000mm with Back Cover Panel complete unit :

	Providing & Fixing with SITC of Leg Space of L-600 with Back Cover Panel, Epoxy powdered coated
	0.9mm Back Cover Panel CRCA, Top Frame MS Pipe, 'Providing and Fixing Z Black Granite
	(Acid/Chemical Resistance)17 (± 1) mm thick with high quality granite in jet black colour with pre
	moulded, pre polished edges, Edge moulding and V-grooving, shamphering The overhang of granite
	should be 30 mm – 50mm. at front side of under storage cabinets, Neoprene Strip (2.5" wide & 6 mm
	thick) backing material for granite should be NEOPRENE fixing with SR-998 glue. Complete in all
	respect as directed and upto the entire satisfaction of Engineer in Charge.
1.06	
1.00	Corner Modular Floor Unit corner module main unit, 850mm x depth 530mm x height 635mm Epoxy
	powdered coated 0.9mm metal sheet virgin steel CRCA, cabinet frame 1.2mm thickness Providing and
	Fixing Z Black Granite (Acid/Chemical Resistance)18 (± 2) mm thick with high quality granite in jet
	black colour with pre moulded, pre polished edges, Edge moulding and V-grooving, shamphering The
	overhang of granite should be $30 \text{ mm} - 50 \text{mm}$. at front side of under storage cabinets. Complete in all
	respect as directed and upto the entire satisfaction of Engineer in Charge.
1.07	
1.07	Floor Unit corner module main unit, 850mm x depth 530mm x height 635mm Epoxy powdered coated
	0.9mm metal sheet virgin steel CRCA, cabinet frame 1.2mm thickness single shutters Epoxy powdered
	50-60micron coated 0.9mm metal sheet CRCA, cabinet frame 1.2mm thickness with 2 sets of SS/PP
	hinges, and SS Door handles. Providing and Fixing Sinks and Accessories Polypropylene Sinks (Drop-
	in) of overall size 548L x 398W x 235D (mm), (Black color) Classic timeless appearance in matt finish,
	non rusting and easy to maintain with bottle trap. (Drop-in) of overall size 548L x 398W x 235D (mm),
	non-rusting and easy to maintain with bottle trap. Waste Coupling For PP/Ceramic/SS Drop In Sink,
	Anti-Siphon bottle trap, Size : 38mm dia. (Black color) Serated Flexible connector to connect sink to the
	waste line, length 1mt. and 38mm dia. Serated Flexible connector to connect sink to the waste line, length
	1mt. and 38mm dia. Providing and Fixing Water Faucets for Sink unit shall have 3 way (2 straight+1
	swan neck) turn type water faucets made up of Brass with epoxy powder coating of minimum weight
	1550 gm to 1600 gm. It should be PH and rust resistant. The switch valve cast to be made of ceramic that
	can avoid acid wear. The outlet produced in PVC, has detachable hose nozzles, allay pressure,
	changeable high-pressure outlet constructed or normal clean outlet control of water flow faucet
	immediately. Granite (Acid/Chemical Resistance)18 (± 2) mm thick with high quality granite in jet black
	colour with pre moulded, pre polished edges, Edge moulding and V-grooving, shamphering The
	overhang of granite should be 30 mm – 50mm. at front side of under storage cabinets. Complete in all
	respect as directed and upto the entire satisfaction of Engineer in Charge.
1.08	
1.00	
1.00	
1.00	Laboratory Double Reagent Shelf for Acids & Chemicals Single Sided Reagent Shelf
1.00	Laboratory Double Reagent Shelf for Acids & Chemicals
1.00	Laboratory Double Reagent Shelf for Acids & Chemicals Single Sided Reagent Shelf 2-tier for Island benches, 1500 mm Length, 300mm Depth (660mm Ht.) above worktop. The end vertical
1.00	Laboratory Double Reagent Shelf for Acids & Chemicals Single Sided Reagent Shelf 2-tier for Island benches, 1500 mm Length, 300mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end
1.08	Laboratory Double Reagent Shelf for Acids & Chemicals Single Sided Reagent Shelf 2-tier for Island benches, 1500 mm Length, 300mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal
1.00	Laboratory Double Reagent Shelf for Acids & Chemicals Single Sided Reagent Shelf 2-tier for Island benches, 1500 mm Length, 300mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal shelf should have provisions for fixing the electrical switches and sockets 6 Module plates and 6/16A
1.00	Laboratory Double Reagent Shelf for Acids & Chemicals Single Sided Reagent Shelf 2-tier for Island benches, 1500 mm Length, 300mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal shelf should have provisions for fixing the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each
1.00	Laboratory Double Reagent Shelf for Acids & Chemicals Single Sided Reagent Shelf 2-tier for Island benches, 1500 mm Length, 300mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal shelf should have provisions for fixing the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each Reagent shelf should be 30 kgs. Includes the electrical fitting complete in all aspects
1.08	Laboratory Double Reagent Shelf for Acids & Chemicals Single Sided Reagent Shelf 2-tier for Island benches, 1500 mm Length, 300mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal shelf should have provisions for fixing the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each Reagent shelf should be 30 kgs. Includes the electrical fitting complete in all aspects (ANCHOR/LEGRAND/MK) 6 Module Plate 16A, 1way switch and 6/16A,6pin shutter Socket and suitable wiring. Complete in all respect as directed and upto the entire satisfaction of Engineer in Charge.
	Laboratory Double Reagent Shelf for Acids & Chemicals Single Sided Reagent Shelf 2-tier for Island benches, 1500 mm Length, 300mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal shelf should have provisions for fixing the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each Reagent shelf should be 30 kgs. Includes the electrical fitting complete in all aspects (ANCHOR/LEGRAND/MK) 6 Module Plate 16A, 1way switch and 6/16A,6pin shutter Socket and suitable wiring. Complete in all respect as directed and upto the entire satisfaction of Engineer in Charge.
	Laboratory Double Reagent Shelf for Acids & Chemicals Single Sided Reagent Shelf 2-tier for Island benches, 1500 mm Length, 300mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal shelf should have provisions for fixing the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each Reagent shelf should be 30 kgs. Includes the electrical fitting complete in all aspects (ANCHOR/LEGRAND/MK) 6 Module Plate 16A, 1way switch and 6/16A,6pin shutter Socket and suitable wiring. Complete in all respect as directed and upto the entire satisfaction of Engineer in Charge. Laboratory Double Reagent Shelf for Acids & Chemicals Providing and Fixing Double Sided Reagent Shelf 2-tier for Island benches, 900 mm Length, 300 mm Depth (660mm Ht.) above worktop. The end vertical
	Laboratory Double Reagent Shelf for Acids & Chemicals Single Sided Reagent Shelf 2-tier for Island benches, 1500 mm Length, 300mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal shelf should have provisions for fixing the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each Reagent shelf should be 30 kgs. Includes the electrical fitting complete in all aspects (ANCHOR/LEGRAND/MK) 6 Module Plate 16A, 1way switch and 6/16A,6pin shutter Socket and suitable wiring. Complete in all respect as directed and upto the entire satisfaction of Engineer in Charge. Laboratory Double Reagent Shelf for Acids & Chemicals Providing and Fixing Double Sided Reagent Shelf
	Laboratory Double Reagent Shelf for Acids & Chemicals Single Sided Reagent Shelf 2-tier for Island benches, 1500 mm Length, 300mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal shelf should have provisions for fixing the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each Reagent shelf should be 30 kgs. Includes the electrical fitting complete in all aspects (ANCHOR/LEGRAND/MK) 6 Module Plate 16A, 1way switch and 6/16A,6pin shutter Socket and suitable wiring. Complete in all respect as directed and upto the entire satisfaction of Engineer in Charge. Laboratory Double Reagent Shelf for Acids & Chemicals Providing and Fixing Double Sided Reagent Shelf 2-tier for Island benches, 900 mm Length, 300 mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal
	Laboratory Double Reagent Shelf for Acids & Chemicals Single Sided Reagent Shelf 2-tier for Island benches, 1500 mm Length, 300mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal shelf should have provisions for fixing the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each Reagent shelf should be 30 kgs. Includes the electrical fitting complete in all aspects (ANCHOR/LEGRAND/MK) 6 Module Plate 16A, 1way switch and 6/16A,6pin shutter Socket and suitable wiring. Complete in all respect as directed and upto the entire satisfaction of Engineer in Charge. Laboratory Double Reagent Shelf for Acids & Chemicals Providing and Fixing Double Sided Reagent Shelf 2-tier for Island benches, 900 mm Length, 300 mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end
	Laboratory Double Reagent Shelf for Acids & Chemicals Single Sided Reagent Shelf 2-tier for Island benches, 1500 mm Length, 300mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal shelf should have provisions for fixing the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each Reagent shelf should be 30 kgs. Includes the electrical fitting complete in all aspects (ANCHOR/LEGRAND/MK) 6 Module Plate 16A, 1way switch and 6/16A,6pin shutter Socket and suitable wiring. Complete in all respect as directed and upto the entire satisfaction of Engineer in Charge. Laboratory Double Reagent Shelf for Acids & Chemicals Providing and Fixing Double Sided Reagent Shelf 2-tier for Island benches, 900 mm Length, 300 mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal shelf should have provisions for fixing the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each
	Laboratory Double Reagent Shelf for Acids & Chemicals Single Sided Reagent Shelf 2-tier for Island benches, 1500 mm Length, 300mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal shelf should have provisions for fixing the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each Reagent shelf should be 30 kgs. Includes the electrical fitting complete in all aspects (ANCHOR/LEGRAND/MK) 6 Module Plate 16A, 1way switch and 6/16A,6pin shutter Socket and suitable wiring. Complete in all respect as directed and upto the entire satisfaction of Engineer in Charge. Laboratory Double Reagent Shelf for Acids & Chemicals Providing and Fixing Double Sided Reagent Shelf 2-tier for Island benches, 900 mm Length, 300 mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal shelf should have provisions for fixing the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each Reagent shelf should be 30 kgs. Includes the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each Reagent shelf should be 30 kgs. Includes the electrical fitting complete in all aspects
	Laboratory Double Reagent Shelf for Acids & Chemicals Single Sided Reagent Shelf 2-tier for Island benches, 1500 mm Length, 300mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal shelf should have provisions for fixing the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each Reagent shelf should be 30 kgs. Includes the electrical fitting complete in all aspects (ANCHOR/LEGRAND/MK) 6 Module Plate 16A, 1way switch and 6/16A,6pin shutter Socket and suitable wiring. Complete in all respect as directed and upto the entire satisfaction of Engineer in Charge. Laboratory Double Reagent Shelf for Acids & Chemicals Providing and Fixing Double Sided Reagent Shelf 2-tier for Island benches, 900 mm Length, 300 mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal shelf should have provisions for fixing the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each Reagent shelf should be 30 kgs. Includes the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each Reagent shelf should be 30 kgs. Includes the electrical fitting complete in all aspects (ANCHOR/LEGRAND/MK) 6 Module Plate 16A, 1way switch and 6/16A,6 pin shutter Socket and
	Laboratory Double Reagent Shelf for Acids & Chemicals Single Sided Reagent Shelf 2-tier for Island benches, 1500 mm Length, 300mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal shelf should have provisions for fixing the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each Reagent shelf should be 30 kgs. Includes the electrical fitting complete in all aspects (ANCHOR/LEGRAND/MK) 6 Module Plate 16A, 1way switch and 6/16A,6pin shutter Socket and suitable wiring. Complete in all respect as directed and upto the entire satisfaction of Engineer in Charge. Laboratory Double Reagent Shelf for Acids & Chemicals Providing and Fixing Double Sided Reagent Shelf 2-tier for Island benches, 900 mm Length, 300 mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal shelf should have provisions for fixing the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each Reagent shelf should be 30 kgs. Includes the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each Reagent shelf should be 30 kgs. Includes the electrical fitting complete in all aspects (ANCHOR/LEGRAND/MK) 6 Module Plate 16A, 1way switch and 6/16A,6 pin shutter Socket and suitable wiring. Complete in all respect as directed and upto the entire satisfaction of Engineer in Charge
	Laboratory Double Reagent Shelf for Acids & Chemicals Single Sided Reagent Shelf 2-tier for Island benches, 1500 mm Length, 300mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal shelf should have provisions for fixing the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each Reagent shelf should be 30 kgs. Includes the electrical fitting complete in all aspects (ANCHOR/LEGRAND/MK) 6 Module Plate 16A, 1way switch and 6/16A,6pin shutter Socket and suitable wiring. Complete in all respect as directed and upto the entire satisfaction of Engineer in Charge. Laboratory Double Reagent Shelf for Acids & Chemicals Providing and Fixing Double Sided Reagent Shelf 2-tier for Island benches, 900 mm Length, 300 mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal shelf should have provisions for fixing the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each Reagent shelf should be 30 kgs. Includes the electrical fitting complete in all aspects (ANCHOR/LEGRAND/MK) 6 Module Plate 16A, 1way switch and 6/16A,6 pin shutter Socket and suitable wiring. Complete in all respect as directed and upto the entire satisfaction of Engineer in Charge FUME HOOD COMPLETE UNIT WITH ACCESSORIES
1.09	Laboratory Double Reagent Shelf for Acids & Chemicals Single Sided Reagent Shelf 2-tier for Island benches, 1500 mm Length, 300mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal shelf should have provisions for fixing the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each Reagent shelf should be 30 kgs. Includes the electrical fitting complete in all aspects (ANCHOR/LEGRAND/MK) 6 Module Plate 16A, 1way switch and 6/16A,6pin shutter Socket and suitable wiring. Complete in all respect as directed and upto the entire satisfaction of Engineer in Charge. Laboratory Double Reagent Shelf for Acids & Chemicals Providing and Fixing Double Sided Reagent Shelf 2-tier for Island benches, 900 mm Length, 300 mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal shelf should have provisions for fixing the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each Reagent shelf should be 30 kgs. Includes the electrical fitting complete in all aspects (ANCHOR/LEGRAND/MK) 6 Module Plate 16A, 1way switch and 6/16A, 6 pin shutter Socket and suitable wiring. Complete in all respect as directed and upto the entire satisfaction of Engineer in Charge FUME HOOD COMPLETE UNIT WITH ACCESSORIES Fume Hood (with base) Extra Heavy Structure made of 1.6 mm frame & 1.2 mm CRCA body Over all
1.09	Laboratory Double Reagent Shelf for Acids & Chemicals Single Sided Reagent Shelf 2-tier for Island benches, 1500 mm Length, 300mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal shelf should have provisions for fixing the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each Reagent shelf should be 30 kgs. Includes the electrical fitting complete in all aspects (ANCHOR/LEGRAND/MK) 6 Module Plate 16A, 1way switch and 6/16A,6pin shutter Socket and suitable wiring. Complete in all respect as directed and upto the entire satisfaction of Engineer in Charge. Laboratory Double Reagent Shelf for Acids & Chemicals Providing and Fixing Double Sided Reagent Shelf 2-tier for Island benches, 900 mm Length, 300 mm Depth (660mm Ht.) above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal shelf should have provisions for fixing the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each Reagent shelf should be 30 kgs. Includes the electrical fitting complete in all aspects (ANCHOR/LEGRAND/MK) 6 Module Plate 16A, 1way switch and 6/16A,6 pin shutter Socket and suitable wiring. Complete in all respect as directed and upto the entire satisfaction of Engineer in Charge FUME HOOD COMPLETE UNIT WITH ACCESSORIES

	2. Fume Hood Upper Unit should be Epoxy Polyester Powder Coated and dimensions should be
	L=1500mm, D=940mm, H=1450mm.
	3. Fume Hood (Upper Unit) should have internal lining suitable for Acidic Fumes of Internal size
	L=1180mm, D=810mm, H=1220mm
	4. System should have Baffle at the back with 3 point suction system (for light, normal & heavy gases/
	Fumes) for smooth exhaust of fumes.
	5. Should have Sash-vertical sliding 5 - 6mm thick toughened glass in a 50mm wide frame. Sash should
	slide on a pulley system and Sash should also have SS handles for operation.
	6. Should have for 6/16 amps single phase socket with 16 amps MCB, internal wiring, LED light, On-
	Off switch for Blower, tube light switch, ELCB for Safety Purpose.
	7. Worktop should be Jet black Granite: 16-17mm dished work surface with 12mm thick ply backing
	having provision to fix Drip cup.
	8. UTILITY SERVICES – Should have remote valves on front fascia and spout on the inside wall. (All
	utility line shall be terminated at rear side on top /bottom of fume hood for further connection).
	9. Wet and Dry Service Utilities (as per DIN 12920 norms)
	10. Panel Mounting for Water, Gas, Vacuum, Nitrogen supplies in the fume hood should be standard
	along with gas valves and water faucet.
	11. Fume Hood Base cabinets should be C-Frame/D-Frame/D-Frame design with dimensions as
	L=1500mm, H=850mm x D-570mm + Frame of depth 900 mm.
	12. Fume should be quoted with suitable blower wit branded motor drive system with 1400CFM to
	1800CFM, body of fume Hood should be PP or FRP.
	13. Required chemical resistant ducting should be quoted with the system.
	14. Fume Hood must be quoted with apparatus holding grid.15. Base storage cabinets should be having the internal PP+FRP lining to avoid the corrosion.
	16. Door handles should be made of SS304/316.
	The system must be as per the ASHREA standards.
	Complete in all respect as directed and up to the entire satisfaction of Engineer in Charge.
1.11	Chemical Storage Unit Complete with all accessories
1.11	Providing and Fixing CHEMICAL STORAGE CABINETS as per following specifications:-
	MS Chemical Storage Cabinet
	1000 x 486 x 1800mm : 1.2mm thick made of CRCA with epoxy coating (60-70 micron).
	Four Door Cabinet with glass MOC : MS CRCA 1000mm W x 486mm D x 1800mm Ht. Inside must be
	polyprylene + Fiber reinforced plastic coatong 3mm quoting.
	Complete in all respect as directed and upto the entire satisfaction of Engineer in Charge.
1.12	DUCT PP+FRP (polypropylene+ Fiber reinforced plastic) Complete
	PPFRP 14" Rigid duct with acessories for Fume Hoods: PP+FPR ducting with 3mm PP inner side and
	3mm FRP outer side. Ducts should be 25 mm x 25 mm Stitch welding is done on inner surface and
	continuous welding on outer surface. While making the lining, there should not be any air pockets or any
	sort of uneven finish. The flange thickness should be 8mm. All flanges are to be matched with M8, GI
	fasteners and flat washers on both the sides. 90 degrees bend of 14 inches, U-clamps for Rigid Duct 14
	inches, Flange 10mm thick round with fasteners PP+FRP for 14" duct, Hanging MS Support for Rigid
	Duct 14", Flexible Bellow for the blower, Raincowl for blower system, Inlet Transition for blower
	system, per Running meter cost should be mentioned. Complete in all respect as directed and upto the
	entire satisfaction of Engineer in Charge.
1.13	Providing and Fixing of CRCA epoxy powder coated electrical raceways for with the provision for face
	plate housing for one 5Amp and one 16 Amp socket and two 5Amp ad 15 Amp switches each. Raceways
	should be made of 1.2mm thick CRCA.
1.14	Over Hood Glass Modular Cabinet complete
	Providing and fixing of Over hood storage cabinets width 600mm Depth 430mm Height 600mm size
	double door with glass and Epoxy powdered 50-60 micron coated 0.9mm metal sheet CRCA, cabinet
	frame 1.2mm thickness, 2 set of Hettich/Haffel hinges, SS Door handles, CRCA shelf 0.9mm. Complete
	in all respect as directed and upto the entire satisfaction of Engineer in Charge.
1.14	
	Providing and fixing of SS 316 1/2" size gas tubing with hanging clamp support complete as directed and
	up to the satisfaction of Engineer in-charge.
1.15	SS 304 Cylinder Manifold Gas Fittings
	Providing and fixing of SS 304 Cylinder Manifold with pigtail, MS cylinder mounting bracket complete

	as directed and up to the satisfaction of Engineer in charge
1.16	SS 316 T-Joint connectors Gas Fittings
	Providing & Fixing SS 316 T-Joint connectors complete as directed and up to the satisfaction of Engineer
	in Charge
1.17	Control Valve Box with pressure gauge meter Gas Fittings
	Providing & Fixing Control Valve Box with pressure gauge meter complete as directed and up to the satisfaction of Engineer in Charge.
1.18	SS 316 Needle Valves for 1/2" with SS connector and fitting Gas Fittings
	Providing & Fixing SS 316 Needle Valves for 1/2" with SS connector and fitting complete as directed
	and up to the satisfaction of Engineer in charge
1.19	3 Stage Purification Panel Gas Fittings complete in CIL
	Providing & Fixing 3-stage purification panel with control valves with pressure gauge (for N2, Argon,
	Helium, Hydrogen gas) complete as directed and up to the entire satisfaction of Engineer in charge.
1.20	LPG line SS 1/2" with connector & Bunsen burner assembly
	Providing and fixing of LPG line with with SS 316 1/2" tubing, Hangin clamp support, Argon welding of
	joints, parallel line for each lab from cylinder bank, LPG Gas regulator manifold, Bunsen Burners with
	flame control and on -off facility with brass construction and powder coated base 13mm brass pipe, LPG
	brass manifold for cylinders, complete as directed and up to the entire satisfaction of Engineer in Charge.
1.20	Providing, fixing and installation of Sport fume extractors roof mounted. The arm pipe should be of
	anodized aluminium material. Air volumes: 45-85 m3/h. Working in -5°C - +90°C. O-rings, damper and
	Joints should be made of polypropylene material, movable in one direction. Threadscrew should be SS
	material. Should handle small amount of chemical fumes, pollutants in chemical and physical science
	laboratories. Suitable blower of 1 HP motor for 2 nos. of spot fume extractor should be quoted.
1.22	Gas Cylinder
	Filled Gas Cylinder 47 lt capacity each with valve of analytical grade purity 99.999& pure for H ₂ , He, N ₂
	O ₂ , Zero Air, Argon, MS cylinder bank with priming coat and water proof paint dual coat. Fire safety
	certificate, Purity certificate must be attached. Complete in all respect as directed and upto the entire
	satisfaction of Engineer in Charge.
	antity may vary slightly as per the actual site requirements. Actual quantity installed will be subjected for
al bill	ing. Refer to BOO in details and vendor to offer the % rate on each HSR rates in case of any civil or

final billing. Refer to BOQ in details and vendor to offer the % rate on each HSR rates in case of any civil or electrical or PH works required/given.

	LIST OF APPROVED MAKES		
1	M.S. conduits and accessories	BEC / NIC / STEEL CRAFT	
2	P.V.C. conduits and accessories	Diplast /Finolex/Ravindra/ Polypack	
3	Electrical accessories, Batten holder, Pendent holder, ceiling rose, bell push, switches and sockets etc.	Anchor / SSK / Havells	
4	Bakelite Sheet	Super Hylam / Formica (AS per IS2036-95)	
5	Call Bell & Buzzer	Anchor / SSK / Havells	
6	PVC Wires (Copper Conductor)	Havells FRLS/Finolex FRLS/Polycab/Bonton/RR kabel	
7	PVC underground cables with aluminum / copper conductor	Finolex /Grandlay / Havells /Polycab/RR kabel	
8	HT (XLPE cables with aluminum conductor)	CCI/Havells/ICC/ICL/Gloster	
9	LT (XLPE cables with aluminium conductor)	CCI/Havells/ICC/ICL/Gloster	
10	PVC pipe (ISI Marked with 6KG pressure)	Supreme/ AKG / Diplast / Finolex	
11	G.I. pipe and M.S. pipe	Jindal /TATA /Ravindra	
12	IC switches CAT-A (with Enclosure)	L&T / GE / Siemens/ABB / Havells	
13	Enclosures for MCB's/MCCB's	Makes as per MCB's/MCCB's	
14	ELCB's	ABB/ Siemens / Legrand/ L&T	
15	МСВ	ABB/ Siemens / Legrand/ L&T/ Indoasian	
16	MCCB's	ABB/ Siemens / Legrand/ L&T	
17	Telephone wires	Delton / Finolex/Havells	
18	Jelly filled Armoured/unarmoured Telephone cable	Delton/Finolex/Havells	
19	LED fixture	Philips/Bajaj/Havells/Panasonic/Osram/C.G./G.E./Wipro	
20	Ceiling fan	Orient/Havells/Bajaj/Crompton/USHA	
21	Exhaust fan	Orient/Havells/Bajaj/Crompton/USHA	
22	Chemical Earthing	JMV/ERICO/FURSE/Kingsmill	
23	Digital Lighting Arrestor	JMV/ERICO/FURSE/Kingsmill	
24	Cable lugs	Dowells crimping type	
25	Coaxial cables	Delton / Finolex / Havells	
26	Telephone tag blocks	Krone	
27	Terminal blocks	Elmex	
28	Indicating lamps (LED Type)	Vaishno / Kaycee / L&T	

29	Cable Glands	HMI/Comet/Johnson. Chromium plated brass heavy duty glands, weather proof with rubber washers and
30	Modular switches, sockets speed Regulators (Step type) i/c box & sheet	gaskets. ABB/ Havells 'Athena' / Legrand/Anchor wood /North West
31	WLAN Controller	Ruckus/Cisco/Aruba
32	Indoor Access point	Ruckus/Cisco/Aruba
33	48 port Non POE Access Switch	Brocade/HP/Cisco
34	48 port POE Access Switch	Cisco/Brocade/HP
35	48 port SFP+HA Core Switch	Cisco/Brocade/HP
36	10GBASE-SR, SFPP MMF LC CONNECTOR	Cisco/Brocade/HP
37	42U Server rack	Vpro/Apw/I-ball
38	15U Server rack	Vpro/Apw/I-ball
39	Category 6 7ft Modular RJ-45 UTP patch cord	Molex/AMP/Systimax
40	Category 6 RJ-45 UTP Information Outlet	Molex/AMP/Systimax
41	Fully Loaded jack Panel	Molex/AMP/Systimax
42	6-Core OFC	Digilink/AMP/Dlink
43	4MP IP Network Dome Camera	Dahua/Panasonic/Honeywell
44	2MP WDR IR Bullet Network Camera	Dahua/Panasonic/Honeywell
45	3x2MP Multi-Sensor Panoramic Network IR Bullet Camera	Dahua/Panasonic/Honeywell
46	2MP IR Dome Network Camera	Dahua/Panasonic/Honeywell
47	2MP 30x Starlight IR PTZ Network Camera	Dahua/Panasonic/Honeywell
48	Video management Server	Dahua/Cisco/Milestone
49	Enterprise Video Storage	Dahua/Panasonic/Honeywell
50	6TB Surveillance hard disk	WD-PURPLE/SEGATE
51	Ultra-HD Network Video Decoder	Dahua/Panasonic/Hyundai
52	Full-HD Video Wall Display Unit(Ultra Narrow Bezel 3.5mm)	Dahua/Samsung/Panasonic
53	Virtual Classroom	PANOPTO/PlaceCam/Tandberg
54	Tracking Camera for Faculty	ATDSC/Oneking/B&S
55	PTZ Camera for Students	ATDSC/Oneking/B&S
56	Digital Podium	ATDSC/Labwe/AHA
57	3300 ANSI Lumens Projector with Ceilling Mounting Kit	ViewSonic/Christie/Barco
58	Motorised Screen	ATDSC/Liberty/Dalite
59	4000 ANSI lumens Projector with Ceilling Mounting Kit	ViewSonic/Christie/Barco
60	HDMI Cable	Linetck/terawhite/Kramer
61	Speaker Cable Two Core 1.5 sqmm	Linetck/terawhite/Kramer

62	VRV/VRF HVAC System	Mitsubishi-Electric/O-General/Toshiba-Premium
63	Ductable Type indoor unit-VRV	Mitsubishi-Electric/O-General/Toshiba-Premium
64	Cassette/Wall Mounted type indoor unit-VRV	Mitsubishi-Electric/O-General/Toshiba-Premium
65	Refrigerant Copper pipe	Mandev/Totaline/Mexflow/Parasmani
66	Refrigerant Y-Joints	Mitsubishi-Electric/O-General/Toshiba-Premium
67	Sheet metal ducts	Jindal/Sail/Hindalco
68	UPS	Eaton/Gutor/GE/Emerson/MGE
69	Passenger Lifts	KONE/OTIS/MITSUBISHI/Schindler
70	Freight/service Lifts	KONE/OTIS/MITSUBISHI/Schindler
71	Fire Alarm Control Panel	Bosch/Siemens/Morley/GST
72	Intelligent Analog Addressable type smoke detector	Bosch/Siemens/Morley/GST/Edwards
73	Laser based smoke detector	Bosch Seimens Fire Finder/Morley IAS/GST
74	Manual Call Point	Bosch/Siemens/Morley/GST/Edwards
75	Sounder with storbe/flasher	Bosch/Siemens/Morley/GST/Edwards
76	Repeater fire alarm	Bosch/Siemens/Morley/GST/Edwards
77	Addressable Control Relay Module	Bosch/Siemens/Morley/GST/Edwards
78	SIREN Generator	Kheraj
79	Duct type smoke detector	Bosch/Siemens/Morley/GST/Edwards
80	Controller Unit	PANASONIC/BOSCH/ATEIS
81	BI Directinal Speaker	PANASONIC/BOSCH/ATEIS
82	PLENA BOOSTER AMPLIFIER	PANASONIC/BOSCH/ATEIS
83	Butterfly Valve	Kartar/SKS/Zoloto/SANT
84	Sluice Valve	KARTAR/SKS/ZOLOTO/SANT
85	Landinge Valve	Newage/Minimax/Fyrmax
86	Fire Hose, RRL Hose	Newage/Minimax/Fyrmax/Hytek/Safeguard
87	Fire Brigade inlet	Newage/Minimax/Fyrmax/Safeguard
88	Dual plate Non return Valve	Kartar/SKS/Zoloto
89	Fire Hose Reel	Newage/Minimax/Fyrmax/Hytek/Safeguard
90	Pressure Gauge	FIEBIG/H.GURU
91	Air Release Valve	KALPNA/HS/PRATAP
92	Electric driven Terrace pump	KIRLOSKAR/CG/ABB
93	Gate Valve	SANT/ZOLOTO/KARTAR
94	Fire extinguisher	CEASEFIRE/MINIMAX/SAFEGUARD/FYRMAX
95	Centrifugal Single Stage Electric driven fire pumping set	KIRLOSKAR/CG/ABB
96	Diesel Engine Fire pump	KIRLOSKAR/MATHER&PLATT/GRUNDFOSS
97	Pressure Switch	Indfoss/Danfoss
98	Y type strainer	Kartar/SKS/Zoloto
99	Anti Vibration expansion	Kanwal
100	Draw Out Connection	Newage/Minimax/Fyrmax/Safeguard

101	Foot Valve	KIRLOSKAR/KARTAR
102	Pendant/Upwright type Sprinkler	AQUA/HD/TYCO
103	Flow Switch	System Sensor
104	Ball Valve	SKS/KARTAR/ZOLOTO
105	Video Conferencing Software Solution	PlaceCam/Vidyo/Tanberg
106	Server Software for Communication	PlaceCam/Vidyo/Tanberg
107	Wall Mounting Speaker	YAMAHA/QSC/OHM
108	Power Amplifier	YAMAHA/QSC/OHM
109	Analog Mixer	YAMAHA/QSC/OHM
110	Chairman and Delegate Unit	AudioTechnica/Revolab/Beyerdynamic
111	Control Unit	AudioTechnica/Revolab/Beyerdynamic
112	Controller	AMX/Crestron/Aurora
113	PTZ Camera	ATDSC/Oneking/B&S
114	Splitter	Milestone/Kramer/Extron

APPROVED MAKES OF ELECTRICAL ACCESSORIES / ITEMS W.E.F. DATED: 19-03-2015

Sr.	Name of Items	Name of the Brand
1	 (A) Electrical accessories, Button Holder, Pendent Holder, Ceiling Rose, Bell push, Switches and sockets, Call bell/buzzer etc. (I.S.I. Marked). (B) Modular Accessories. 	 (A) Anchor (Penta), SSK (Top Line) (B) Anchor (Wood), ABB (Classiq), Legrand (Mosaic), North West, Great White (Fiana), SSK (Zen, Elegance, Heritage series).
2	Bakelite Sheet (Only White in colour)	Hylem, Greenlame (ISI marked)
3	MS Conduit Pipes (I.S.I. Marked)	BEC, NIC, Steel Krafts, M.Kay
4	PVC Wires Copper Conductor (I.S.I. Marked)	Grandlay, Havell [®] s, Plaza, Ecko, Polycab. Delton, R.R. Kabel, HPL, DIATRON, Great White
5	LT-PVC/ XLPE Underground cables with Aluminum Conductor (I.S.I. Marked)	 A) All sizes:- CCI, Grandlay, Havell[®]s, Plaza, Polycab, Delton, DIATRON, B) Upto 25 sq. mm 2 to 4 core :- Paragon, Pymen, Kent, Indane, Incab.
6	 (i) HT-XLPE cables with aluminum Conductor (I.S.I. Marked) (ii) Arial Bunch cable/ACSR 	CCI, Gloster, Havell [®] s, Incab, Plaza, DIATRON. (As approved by UHBVNL/DHBVNL)
7	PVC Conduit pipe with accessories and 6 Kg. Pressure PVC pipe and its	AKG, Diplast, Kalinga, Polypack. PKS, Ravindra
8	GI Pipe & M.S. Pipe (medium) (I.S.I. Marked)	Jindal, Parkash, Ravindra, Tata.
9	I.C. Switches/SFU/FSU/Changeover switch	Category-A (All sizes):- GE, L&T , Siemens, Category-B (All sizes): Havell [®] s, SSK, C&S, Standard, HPL.
10	MCBs & Enclosure, ELCB/RCCB.	 A) GE, Havell^s, L&T, Legrand, Standard, Siemens, C&S, ABB, Schneider Electric, HPL, BCH.(Makes of enclosures shall be as per MCBs) Prewired DB^s: - Adhunik (For Adhunik prewired DB^s MCB of Adhunik can be installed but not
11	MCCBs & Enclosures	GE, Havell"s, L&T, Siemens, Schneider Electric, ABB, C&S, Standard, Legrand, BCH, HPL.

12	POLES i) M.S. Pole:-	- Manufactured by any firm as per I.S.I. Marked
	ii) G.I. Pole:-	sectional lengths strictly according to IS specifications.
		-Philips, Bajaj, Surya Roshni, Paruthi Engineers (PE),
		Volmont, GE India, Crompton Greaves, Skipper,
	iii) High Mast :-	Vipin S.T Poles
		- Philips, Bajaj, Surya Roshni, Volmont, Paruthi
	iv) Decorative	Engineer (PE), Crompton Greaves, Skipper, Vipin
	Poles:-	S.T Poles
13	PVC Casing & Trunking	AKG/MK
14	Ceiling Fans (Double ball Bearings)	Bajaj, Crompton, Khaitan, Orient, Usha.
15	Indoor light fittings	A.) LED :- Bajaj, Crompton, GE, Philips, Wipro, Mayfair, Surya Roshni, HPL, Halonix, Havell [®] s, Ecolite, Havels.
		 B) CFL:- Bajaj, Crompton, GE, Philips, Wipro Halonix, Twinkle, Surya Roshni, HPL, Havells ,Ecolite, Havels.
		 C) T-5:- Bajaj, Crompton, GE, Philips, Wipro Halonix, Twinkle, Mayfair, Surya Roshni, HPL, Havells, Ecolite, Havels.
16	Outdoor Street Light	 A) LED:- Bajaj, Crompton, GE, Philips, Wipro, Mayfair, Surya Roshni, HPL, Halonix, Havell^s, Ecolite.
17	Flood Light Fittings, Sodium/ M.H./LED	Bajaj, Crompton, GE, Philips, Twinkle, HPL, Havell [®] s, Halonix.
18	L.T. Panel/ Load Bank/APFC/Bus Bar Trunking (OEM or their TTA) (Applicable for Electrical works more than Rs. 50.00 lacs and all sub stations works of 500 KVA and above)	Schneider, C&S, ABB, Siemens, Standard, Havell [®] s, BCH, Nitya Electrocontrol (NEC), L&T, AVON
19	ACBs	GE, L&T, Siemens, Schneider Electric, ABB, C&S. Havell [®] s, HPL.
20	OCBs and VCBs	Alstom, Crompton, Siemens.
21	TRANSFORMERS	Alstom, Bharat Bijlee, Kirloskar, Crompton, NGEF, Voltamp, ABB, Siemens, Schneider
22	GENERATORS :	Engines: Cummins, Greaves Cotton, Kirloskar, Ruston, Eicher (Upto 125 KVA). Alternators : Crompton, Jyoti, Kirloskar, NGEF, Stamford
23	CSSU	Schneider Electric, ABB, Siemens, C&S

TECHNICAL CONDITION FOR P.H. ITEMS.

P.H. fixtures.

1. The P.H. fixtures such as seats, urinals, Cistern, Sinks etc. shall be of reputed manufacturers such as Hindware, Parryware /Cera shall be used.

2. The G.I. pipe to be used should be "B" Class ISI marked of reputed manufacturers such as Tata/Jindal/Ravinder/Parkash Surya. The weight of pipe per meter shall be as per recommendation of the manufacturers.

3. The P.V.C. pipes shall be I.S.I. marked and reputed brand such as Finolex, Prince, Supreme and Astral.

4. The fixture of C.P. brass shall be of reputed manufacturers such as Jaguar/Marc, ESS-ESS or equivalent as approved by Engineer-In- Charge.

5. The item of H.C.I. if any shall be as per Haryana P.W.D. Specification.

6. In this contract schedule of rates only essential portion of items has been written, but it will deem to cover the entire items as fully described in Haryana PWD Schedule of Rates - 1988.

7. The Competent authority shall be entitled to order against any item of work shown in this contract schedule of rates here-in-after called the "Schedule" to any extent and without any limitation what-so-ever required in his opinion for the purpose of work irrespective of the fact that the quantities are omitted altogether in the schedule to be carried out.

Conditions for Public Health Works

1. The work will be carried out strictly in accordance with the PWD Book of specification addition 1990, which will form a part and parcel of this contract agreement .

2. In this contract schedule of rates only essential portion of item has been written, but it will deem to cover the entire items as fully described in Haryana PWD schedule of rates-1988.

3. The Engineer-in-Charge-in-charge shall be entitled to order work against any item of work shown in this contract schedule of rates hereinafter called the schedule, to any extent and without any limitation where ever as may be required in his opinion for the purpose of work, Irrespective of

the fact that the quantities are omitted all together in the schedule or are shown more or less than the work ordered to be carried out.

4. The rate for any item of work not provided in the Haryana PWD schedule of rates 1988 but executed at site will be decided by the competent authority and the decision will be binding upon the contractor.

5. All the items in this contract schedule or rates are subject to the footnotes given in the Haryana PWD schedule or rates of rates 1988 regarding these items.

6. Approximate quantities are given in this contract schedule of rates and may vary at the time of execution of works. The payment will however be made for the actual work done by the contractor. No extra claims whatsoever will be admissible to the contractor on account of variation alternation or deletion of any items over the quantities depicted in this contract schedule of rates.

7. All amendments issued on the Haryana PWD Schedule of Rates-1988 upto the date of opening of tenders will be applicable on the contract schedule of rates.

8. The contractor will have to make his own arrangement of bricks.

Page 72 of 119

9. Any other items not included in this contract schedule of rates and got done at site of work will be paid according to Haryana PWD schedule of rates 1988 accepted in the allotment letter approval issued by the competent authority against this agreement.

10. No claim will be entertained from the contractor in case of any omission in description rates or unit which might have occurred in any of these items taken in this schedule while comparing this schedule or on account of typing comparison or overwriting in case of any error the same shall be rectifiable at any stage as per Haryana PWD schedule of rates 1988 alongwith the amendments on the same received from time to time.

11. The premium should be quoted above or below the contract schedule of rates and no condition should be given in case any condition is tendered this will be considered as Null and void and only the premium or discount quoted by the tenderer shall be accepted in case any tenderer refuses to accept this his earnest money will be forted.

12. The contractor shall submitted the test certificate if the steel brought by him to site of work also the sample of steel may be got tested by the Engineer-in-Charge. The steel shall be ISI marked.

13. No. premium shall be payable on the allotted rates of NS items by the competent authority.

14. Deleted.

15. Deleted.

16. All taxes such as royalty municipal tax octori charges and any other kind of taxes shall be paid by the contractor and are included in the rate quoted by the contractor separately for which no premium will be allowed.

17. As and when contractor gives condition that arrangement of water shall made by the department, it shall be deemed that all the charges incurred thereon shall be borne by the department and recovery on the total work done shall be made from him.

18. Rate to be quoted by the contractor for each N.S item for complete Job including all taxes, carriage etc. Nothing extra on any account shall be paid.

19. Payment will be made according to the actual work done by the contractor.

SECTION-6

FORM OF BID

FORM OF BID

Description of the Works:

То	:
Addre	ess :
1.	We offer to execute the Works described above and remedy any defects therein in conformity with the conditions of Contract, specification, drawings, Bill of Quantities and Addenda for the sum(s) of
	()
2.	We undertake, if our Bid is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Engineer-in-Charge's notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the document.
3.	We agree to abide by this Bid for the period of * days from the date fixed for receiving the same, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
4.	Unless and until a formal Agreement is prepared and executed this Bid, together with your written acceptance thereof, shall constitute a binding contract between us.
5.	We understand that you are not bound to accept the lowest or any tender you may receive. Dated this day of 20 Signature in the capacity of duly authorized to sign bids for and on behalf of
	(in block capitals or types)Address
	Witness
	Address
	Occupation

SECTION-7

BILL OF QUANTITIES

Number #	Text #	Number #	Text #	Number #	Number#	#GST	Number #
Sl.No	Description of Work / Item(s)	No. of Qty	Units	Unit Rates to be entered by bidder	Total Amount without Tax	Rate ampount of GST	Total Amount in incl tax Rs.
1.00	NS items						
1.00	NS items Providing and Fixing of Laboratory Module 750 with C-Frame/D- Frame/D-Frame complete in all aspects :- Providing and Fixing Complete set C- Frame/D-Frame/D-Frame Modular Floor Storage Unit of Double door and single drawer with Cam lock: width 750mm x depth 530mm x height 635mm, Epoxy powdered 50-60micron coated 0.9mm metal sheet CRCA, 2 sets of hinges, Drawer 0.9mm CRCA sheet, Hettich/Hafeil sliding channels and SS Door handles. 'C" Frames of Size D-700 x W-30 mm H-780 (Sitting) & H-890mm (Standing) Vertical Legs depending on as actual site requirements and SEFA10/SEFA8M requirements MOC CRCA/MS pipe with Phosphating pretreatement 'Connecting Sets CRCA 1.2mm, Epoxy powder coated 50- 60micron, (4 pcs) of Size L-1500 mm for joining 'C' Frame Structure, Z Black Granite (Acid/Chemical Resistance)17 (±1) mm thick with high quality granite in jet black colour with pre moulded, pre polished edges, Edge moulding and V-grooving, shamphering The overhang of granite should be 30 mm – 50mm. at front side of under storage cabinets, Neoprene Strip (2.5" wide & 6 mm thick) backing material for granite should be NEOPRENE fixing with SR-998 glue, As required the cover Panel End side panel for main unit, 600mm D, 900mm Ht. Epoxy powdered coated 0.9mm metal sheet virgin steel CRCA, cabinet frame 1.2mm thickness. Complete in all respect as directed and upto the entire satisfaction of Engineer in	453	Nos				

1.02	Laboratory Leg Space 750mm with	265	Nos		
1.02		205	1105		
	Back Cover Panel complete unit :				
	Providing & Fixing with SITC of Leg				
	Space of L-750 with Back Cover				
	Panel, Epoxy powdered coated 0.9mm				
	Back Cover Panel CRCA, Top Frame				
	MS Pipe, 'Providing and Fixing Z				
	Black Granite (Acid/Chemical				
	Resistance)17 (± 1) mm thick with high				
	quality granite in jet black colour with				
	pre moulded, pre polished edges, Edge				
	moulding and V-grooving,				
	shamphering The overhang of granite				
	should be 30 mm – 50mm. at front side				
	of under storage cabinets, Neoprene				
	Strip (2.5" wide & 6 mm thick)				
	backing material for granite should be				
	NEOPRENE fixing with SR-998 glue.				
	Complete in all respect as directed and				
	upto the entire satisfaction of Engineer				
1.02	in Charge.				
1.03	Providing and fixing of Laboratory	67	Nos		
	750mm PP Sink Module with				
	acessories complete Unit in all aspects				
	:				
	Providing and fixing of Sink Storage				
	unit of width 750mm, Depth 530 mm,				
	ht of unit 635 mm with two shutters				
	Epoxy powdered 50-60micron coated				
	0.9mm metal sheet CRCA, 2 sets of				
	SS/PP hinges, and SS Door handles.				
	Providing and Fixing Sinks and				
	Accessories Polypropylene Sinks				
	(Drop-in) of overall size 548L x 398W				
	x 235D (mm), (Black color) Classic				
	timeless appearance in matt finish, non				
	rusting and easy to maintain with bottle				
	trap. (Drop-in) of overall size 548L x				
	398W x 235D (mm), non-rusting and				
	easy to maintain with bottle trap.				
	Waste Coupling For PP/Ceramic/SS				
	Drop In Sink, Anti-Siphon bottle trap,				
	Size : 38mm dia. (Black color) Serated				
	Flexible connector to connect sink to				
	the waste line, length 1mt. and 38mm				
	dia. Serated Flexible connector to				
	connect sink to the waste line, length				
	1mt. and 38mm dia. Providing and				
	Fixing Water Faucets for Sink unit				
	-				
	shall have 3 way (2 straight+1 swan				
	neck) turn type water faucets made up				
	of Brass with epoxy powder coating of				
	minimum weight 1550 gm to 1600 gm.				
	It should be PH and rust resistant. The				
	switch valve cast to be made of				
	ceramic that can avoid acid wear. The				
	outlet produced in PVC, has detachable				
	hose nozzles, allay pressure,				
	changeable high-pressure outlet				
	constructed or normal clean outlet				
	control of water flow faucet				

	immediately. Granite (Acid/Chemical Resistance)18 (±2) mm thick with high quality granite in jet black colour with pre moulded, pre polished edges, Edge moulding and V-grooving, shamphering The overhang of granite should be 30 mm – 50mm. at front side of under storage cabinets. Complete in all respect as directed and upto the entire satisfaction of Engineer in Charge.				
1.04	Providing and Fixing 600mm Modular Floor Storage Unit of Double door and single drawer with Cam lock: width 600mm x depth 530mm x height 635mm, Epoxy powdered coated 0.9mm metal sheet CRCA, cabinet frame 1.2mm thickness with 2 sets of SS/PP hinges, Drawer 0.9mm CRCA sheet, Hettich/Hafeil sliding channels and SS Door handles, with Drawer padding, C" Frames of 'C" Frames of Size D-700 x W-30 mm H-780 (Sitting) & H-890mm (Standing) Vertical Legs depending on as actual site requirements. and SEFA10/SEFA8M requirements MOC CRCA/MS pipe with Phosphating pretreatement, Connecting Sets (4 pcs) of Size L-1200 mm for joining 'C' Frame Structure with 'Connecting Sets	120	Nos		
1.05	 (4 pcs) of Size L-1200 mm for joining 'C' Frame Structure Providing and Fixing Z Black Granite (Acid/Chemical Resistance)18 (±2) mm thick with high quality granite in jet black colour with pre moulded, pre polished edges, Edge moulding and V- grooving, shamphering The overhang of granite should be 30 mm – 50mm. at front side of under storage cabinets Laboratory Leg Space 6000mm with Back Cover Panel complete unit : Providing & Fixing with SITC of Leg Space of L-600 with Back Cover Panel ,Epoxy powdered coated 0.9mm Back Cover Panel CRCA, Top Frame MS Pipe, 'Providing and Fixing Z Black Granite (Acid/Chemical Resistance)17 (±1) mm thick with high quality granite in jet black colour with pre moulded, pre polished edges, Edge moulding and V-grooving, shamphering The overhang of granite should be 30 mm – 50mm. at front side of under storage cabinets, Neoprene Strip (2.5" wide & 6 mm thick) backing material for granite should be NEOPRENE fixing 	206	Nos		

	satisfaction of Engineer in Charge.				
	substaction of Englicer in Charge.				
1.06	Providing and Fixing Laboratory	26	Nos		
	Corner Module with accessories				
	Complete Unit :				
	Corner Modular Floor Unit corner				
	module main unit, 850mm x depth				
	530mm x height 635mm Epoxy				
	powdered coated 0.9mm metal sheet				
	virgin steel CRCA, cabinet frame				
	1.2mm thickness Providing and Fixing				
	Z Black Granite (Acid/Chemical				
	Resistance)18 (\pm 2) mm thick with high quality granite in jet black colour with				
	pre moulded, pre polished edges, Edge				
	moulding and V-grooving,				
	shamphering The overhang of granite				
	should be $30 \text{ mm} - 50 \text{mm}$. at front side				
	of under storage cabinets. Complete in				
	all respect as directed and upto the				
	entire satisfaction of Engineer in				
	Charge.				
1.07	Providing and Fixing Laboratory	10	Nos		
	Corner Sink Module with accessories				
	Complete Unit : Corner Modular Floor				
	Unit corner module main unit, 850mm				
	x depth 530mm x height 635mm				
	Epoxy powdered coated 0.9mm metal				
	sheet virgin steel CRCA, cabinet frame 1.2mm thickness single shutters Epoxy				
	powdered 50-60micron coated 0.9mm				
	metal sheet CRCA, cabinet frame				
	1.2mm thickness with 2 sets of SS/PP				
	hinges, and SS Door handles.				
	Providing and Fixing Sinks and				
	Accessories Polypropylene Sinks				
	(Drop-in) of overall size 548L x 398W				
	x 235D (mm), (Black color) Classic				
	timeless appearance in matt finish, non				
	rusting and easy to maintain with bottle				
	trap. (Drop-in) of overall size 548L x				
	398W x 235D (mm), non-rusting and				
	easy to maintain with bottle trap.				
	Waste Coupling For PP/Ceramic/SS				
	Drop In Sink, Anti-Siphon bottle trap,				
	Size : 38mm dia. (Black color) Serated				

th d cu 1 F sl n o n It sv cu o h cl cu cu in R q p m sl sl o a i sv cu o h cl cu cu i i i sv cu o h cu cu i i i i i i i i i i i i i i i i i	Elexible connector to connect sink to he waste line, length 1mt. and 38mm ia. Serated Flexible connector to onnect sink to the waste line, length mt. and 38mm dia. Providing and Fixing Water Faucets for Sink unit hall have 3 way (2 straight+1 swan eck) turn type water faucets made up of Brass with epoxy powder coating of ninimum weight 1550 gm to 1600 gm. t should be PH and rust resistant. The witch valve cast to be made of eramic that can avoid acid wear. The outlet produced in PVC, has detachable ose nozzles, allay pressure, hangeable high-pressure outlet onstructed or normal clean outlet ontrol of water flow faucet mmediately. Granite (Acid/Chemical Resistance)18 (±2) mm thick with high uality granite in jet black colour with re moulded, pre polished edges, Edge noulding and V-grooving, hamphering The overhang of granite hould be 30 mm – 50mm. at front side f under storage cabinets. Complete in ll respect as directed and upto the ntire satisfaction of Engineer in Charge.				
A S 2 L a s s s s s s s c c c c c c c c c c c c	aboratory Double Reagent Shelf for Acids & Chemicals Single Sided Reagent Shelf -tier for Island benches, 1500 mm length, 300mm Depth (660mm Ht.) bove worktop. The end vertical panels hould be 0.9-0.1mm & horizontal helves of 0.9mm thick MS CRCA owder coated. The end vertical panels hould be supported on PP Base upport pieces of 300L x 37 W x 5mmH. The horizontal shelf should ave provisions for fixing the electrical witches and sockets 6 Module plates nd 6/16A Electrical sockets and witches With 2 cutouts for 6 module lates. The load carrying capacity of ach Reagent shelf should be 30 kgs. ncludes the electrical fitting cpmplete n all aspects ANCHOR/LEGRAND/MK) 6 Aodule Plate 16A, 1way switch and V16A,6 pin shutter Socket and suitable viring. Complete in all respect as irected and upto the entire satisfaction of Engineer in Charge.	84	Nos		
1.09 L A P R 2	Laboratory Double Reagent Shelf for Acids & Chemicals Providing and Fixing Double Sided Reagent Shelf -tier for Island benches, 900 mm Length, 150mm Depth (660mm Ht.)	6	Nos		

	above worktop. The end vertical panels should be 0.9-0.1mm & horizontal shelves of 0.9mm thick MS CRCA powder coated. The end vertical panels should be supported on PP Base support pieces of 300L x 37 W x 15mmH. The horizontal shelf should have provisions for fixing the electrical switches and sockets 6 Module plates and 6/16A Electrical sockets and switches With 2 cutouts for 6 module plates. The load carrying capacity of each Reagent shelf should be 30 kgs. Includes the electrical fitting complete				
	in all aspects (ANCHOR/LEGRAND/MK) 6 Module Plate 16A, 1way switch and 6/16A,6 pin shutter Socket and suitable wiring. Complete in all respect as directed and upto the entire satisfaction of Engineer in Charge.				
1.10	 FUME HOOD COMPLETE UNIT WITH ACCESSORIES Fume Hood (with base) Extra Heavy Structure made of 1.6 mm frame & 1.2 mm CRCA body Over all Size L=1500mm, D=900mm, H=2300 mm consisting of following: 1. Should complied to ASHRAE 110:2016 AM or equivalent 2. Fume Hood Upper Unit should be Epoxy Polyester Powder Coated and dimensions should be L=1500mm, D=940mm, H=1450mm. 3. Fume Hood (Upper Unit) should have internal lining suitable for Acidic Fumes of Internal size L=1180mm, D=810mm, H=1220mm 4. System should have Baffle at the back with 3 point suction system (for light, normal & heavy gases/ Fumes) for smooth exhaust of fumes. 5. Should have Sash-vertical sliding 5 - 6mm thick toughened glass in a 50mm wide frame. Sash should slide on a pulley system and Sash should also have SS handles for operation. 6. Should have for 6/16 amps MCB, internal wiring, LED light, On-Off switch for Blower, tube light switch, ELCB for Safety Purpose 7. Worktop should be Jet black Granite: 16-17mm dished work surface with 12mm thick ply backing having provision to fix Drip cup. 8. UTILITY SERVICES – Should have remote valves on front fascia and spout on the inside wall. (All utility line shall be terminated at rear side on 	12	Nos		

			1				
	top /bottom of fume hood for further						
	connection).						
	9. Wet and Dry Service Utilities (as						
	per DIN 12920 norms)						
	•						
	10. Panel Mounting for Water, Gas,						
	Vacuum, Nitrogen supplies in the fume						
	hood should be standard along with gas						
	valves and water faucet.						
	11. Fume Hood Base cabinets should						
	be C-Frame/D-Frame/D-Frame design						
	with dimensions as $L=1500$ mm,						
	H=850mm x D-570mm + Frame of						
	depth 900 mm						
	12. Fume should be quoted with						
	suitable blower wit branded motor						
	drive system with 1400CFM to						
	1800CFM, body of fume Hood should						
	be PP or FRP.						
	13. Required chemical resistant ducting						
	should be quoted with the system.						
	14. Fume Hood must be quoted with						
	apparatus holding grid.						
	15. Base storage cabinets should be						
	having the internal PP+FRP lining to						
	avoid the corrosion.						
	16. Door handles should be made of						
	SS304/316.						
	The manufacturer must be ISO,						
	BIFMA, OHSAS and SEFA-10						
	compliant.						
	Complete in all respect as directed and						
	upto the entire satisfaction of Engineer						
1 1 1	in Charge.) Y				
1.11	Chemical Storage Unit Complete with	6	Nos				
	all accessories						
	Providing and Fixing CHEMICAL						
	STORAGE CABINETS as per						
	following specifications:-						
	MS Chemical Storage Cabinet						
	1000 x 486 x 1800mm : 1.2mm thick						
	made of CRCA with epoxy coating						
	(60-70 micron).						
	Four Door Cabinet with glass MOC :						
	MS CRCA 1000mm W x 486mm D x						
	1800mm Ht. Inside must be						
	polyprylene + Fiber reinforced plastic						
	coatong 3mm quoting						
	Complete in all respect as directed and						
	upto the entire satisfaction of Engineer						
	in Charge.						
		1	1	1	1	1	L

			1	1	1		
1.12	DUCT PP+FRP (polypropylene+	250	sqmt				
	Fiber reinforced plastic) Complete						
	PPFRP 14" Rigid duct with acessories						
	for Fume Hoods: PP+FPR ducting with						
	3mm PP inner side and 3mm FRP						
	outer side. Ducts should be 25 mm x						
	25 mm Stitch welding is done on inner						
	surface and continuous welding on						
	outer surface. While making the lining,						
	there should not be any air pockets or						
	any sort of uneven finish. The flange						
	thickness should be 8mm. All flanges						
	•						
	are to be matched with M8, GI						
	fasteners and flat washers on both the						
	sides. 90 degrees bend of 14 inches, U-						
	clamps for Rigid Duct 14 inches,						
	Flange 10mm thick round with						
	fasteners PP+FRP for 14" duct,						
	Hanging MS Support for Rigid Duct						
	14", Flexible Bellow for the blower,						
	Raincowl for blower system, Inlet						
	•						
	Transition for blower system, per						
	Running meter cost should be						
	mentioned. Complete in all respect as						
	directed and upto the entire satisfaction						
	of Engineer in Charge.						
1.13	Providing and Fixing of CRCA epoxy	130	rmt				
	powder coated electrical raceways for						
	with the provision for face plate						
	housing for one 5Amp and one 16						
	Amp socket and two 5 Amp ad 15						
	Amp switches each. Raceways should						
	be made of 1.2mm thick CRCA						
1.14	Over Hood Glass Modular Cabinet	36	Nos.				
	complete						
	Providing and fixing of Over hood						
	storage cabinets width 600mm Depth						
	430mm Height 600mm size double						
	door with glass and Epoxy powdered						
	50-60micron coated 0.9mm metal sheet						
	CRCA, cabinet frame 1.2mm						
	thickness, 2 set of Hettich/Haffel						
	hinges, SS Door handles, CRCA shelf						
	0.9mm. Complete in all respect as						
	directed and upto the entire satisfaction						
	of Engineer in Charge.						
1.15	SS 316 1/2" Gas Fittings complete	500	meter				
1.15	Providing and fixing of SS 316 ¹ / ₄ " size	500	meter				
	gas tubing with hanging clamp support						
	complete as directed and up to the						
	satisfaction of engineer incharge						
1.16	SS 304 Cylinder Manifold Gas Fittings	5	Nos.				
	Providing and fixing of SS 304						
	Cylinder Manifold with pigtail, MS						
	cylinder mounting bracket complete as						
	directed and up to the satisfaction of						
1 17	Engineer in charge.	250	Ner			<u> </u>	
1.17	SS 316 T-Joint connectors Gas Fittings	250	Nos.				
	Providing & Fixing SS 316 T-Joint						
	connectors complete as directed and up						
	to the satisfaction of Engineer in		1	1	1		

	Charge					
1.18	Control Valve Box with pressure gauge	20	Nos.			
	meter Gas Fittings	20	11051			
	Providing & Fixing Control Valve Box					
	with pressure gauge meter complete as					
	directed and up to the satisfaction of					
	Engineer in Charge.					
1.19	SS 316 Needle Valves for 1/2" with SS	50	Nos			
	connector and fitting Gas Fittings					
	Providing & Fixing SS 316 Needle					
	Valves for 1/2" with SS connector and					
	fitting complete as directed and up to the satisfaction of Engineer in charge					
1.20	3 Stage Purification Panel Gas Fittings	1	Nos.			
1.20	complete in CIL	1	1105.			
	Providing & Fixing 3-stage purification					
	panel with control valves with pressure					
	gauge (for N2, Argon, Helium,					
	Hydrogen gas) complete as directed					
	and up to the entire satisfaction of					
	Engineer in charge					
1.21	LPG line SS 1/2" with connector &	500	meter			
	Bunsen burner assembly					
	Providing and fixing of LPG line with					
	with SS 316 1/2" tubing, Hangin clamp support, Argon welding of joints,					
	parallel line for each lab from cylinder					
	bank, LPG Gas regulator manifold,					
	Bunsen Burners with flame control and					
	on -off facility with brass construction					
	and powder coated base 13mm brass					
	pipe, LPG brass manifold for cylinders,					
	complete as directed and up to the					
	entire satisfaction of Engineer in					
1.00	Charge.	6	Naa			
1.22	Providing, fixing and installation of Sport fume extractors roof mounted.	6	Nos.			
	The arm pipe should be of anodized					
	aluminium material. Air volumes: 45-					
	$85 \text{ m}^3/\text{h}$. Working in $-5^\circ\text{C} - +90^\circ\text{C}$. O-					
	rings, damper and Joints should be					
	made of polypropylene material,					
	movable in one direction. Thread screw					
	should be SS material. Should handle					
	small amount of chemical fumes,					
	pollutants in chemical and physical					
	science laboratories. Suitable blower of					
	1 HP motor for 2 nos. of spot fume extractor should be quoted					
1.23	Gas Cylinder	9	Nos.			
1.23	Filled Gas Cylinder 47 lt capacity each	,	1105.			
	with valve of analytical grade purity					
	99.999& pure for H_2 , He, N_2 , O_2 , Zero					
	Air, Argon, MS cylinder bank with					
	priming coat and water proof paint dual					
	coat. Fire safety certificate, Purity					
	certificate must be attached. Complete					
	in all respect as directed and upto the					

entire satisfaction of Engineer in Charge.						
Grand Total 0						0

Note:-

- 1. The payment should be made on the basis of actual work done and measure at site by running bills.
- 2. Test for various compliances may be got done from Shri Ram Test House, Delhi and said test house may be asked to collect the samples from the site and charges will be borne by the successful bidder.
- 3. All type of water supply lines of GI B-Class/CPVC and disposal of water lines of uPVC will be provided in labs modular furniture and cost of such lines will be incidental to work and no extra payment will be made. Sizes will be duly designed and got checked from the university.
- 4. All electrical points on modular furniture counters including copper wiring/piping will be provided in modular lab by the successful bidder. Cost of such points will be incidental to work and no extra payment will be made. Sizes of copper wires will be duly designed and got checked from the university.

BILL OF QUANTITIES

Preamble

- 1. The Bill of Quantities shall be read in conjunction with the Instructions to Bidders, Conditions of Contract, Technical Specifications and Drawings.
- 2. The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Competent authority and valued at the rates and prices tendered in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Competent authority may fix within the terms of the Contract.
- 3. The rates and prices tendered in the priced Bill of Quantities shall, except in so far as it is otherwise provided under the Contract, include all constructional plant, labour, supervision, materials, erection, maintenance, insurance, profit, taxes cess and duties, together with all general risks, liabilities and obligations set out or implied in the Contract.
- 4. The rates and prices shall be quoted entirely in Indian Currency.
- 5. The cost of Items against which the Contractor has failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.
- 6. The whole cost of complying with the provisions of the Contract shall be included in the items provided in the priced Bill of Quantities, and where no Items are provided the cost shall be deemed to be distributed among the rates and prices entered for the related Items of Work.
- 7. General directions and descriptions of work and materials are not necessarily repeated or summarized in the Bill of Quantities. References to the relevant sections of the contractdocumentation shall be made before entering rates or prices against each item in the Bill of Quantities.
- 8. The method of measurement of completed work for payment shall be in accordance with the specification of Haryana PWD.
- 9. Errors will be corrected by the Employer for any arithmetic errors pursuant to Clause 29 of the Instructions to Bidders.
- 10. Rock is defined as all materials which, in the opinion of the Engineer-in-Charge, require blasting, or the use of metal wedges and sledgehammers, or the use of compressed air drilling for its removal, and which cannot be extracted by ripping with a tractor of at least 150 KW with a single rear mounted heavy duty ripper.
- 11. Deleted.

SECTION-8

SECURITIES AND OTHER FORMS

BID SECURITY (BANK GUARANTEE)

WHEREAS,	_ [name of Bidder] (hereinafter called "the Bidder") has
submitted his Bid dated [date	e] for the construction of
[name of Contract hereinafter called "the Bid"].	

KNOW ALL PEOPLE by these presents that We _____ [name of Bank] of ______ [name of country] having our registered office at ______ (hereinafter called "the Bank") are bound unto ______ [name of Employer] (hereinafter called "the Employer") in the sum of ______ * for which payment well and truly to be made to the said Employer the Bank itself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this ______ day of _____,20____.

THE CONDITIONS of this obligation are:

(1) If after Bid opening the Bidder withdraws his bid during the period of Bid validity specified in the Form of Bid;

OR

- (2) If the Bidder having been notified to the acceptance of his bid by the Employer during the period of Bid validity:
 - (a) Fails or refuses to execute the Form of Agreement in accordance with the Instructions to Bidders, if required; or
 - (b) Fails or refuses to furnish the Performance Security, in accordance with the Instructions to Bidders;
 - (c) Does not accept the correction of the Bid Price pursuant to Clause 27.

We undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without the Employer having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him is due to him owning to the occurrence of one or any of the three conditions, specifying the occurred condition or conditions.

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

DATE	_ SIGNATURE
WITNESS	SEAL

[Signature, name and address]

* The Bidder should insert the amount of the guarantee in words and figures denominated in Indian Rupees. This figure should be the same as shown in Clause 16.1 of the Instructions to Bidders.

** 45 days after the end of the validity period of the Bid. Date should be inserted by the Employer before the Bidding documents are issued.

PERFORMANCE BANK GUARANTEE

То

[name of Employer] [address of Employer]

WHEREAS _____ [name and address of Contractor] (hereafter called "the Contractor") has undertaken, in pursuance of Contract No. _____ dated _____ to execute _____ [name of Contract and brief description of Works] (hereinafter called " the Contract").

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligation in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee:

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you on behalf of the Contractor, up to a total of ______ [amount of guarantee]* ______ (in words), such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of ______ [amount of guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until 60 days from the date of expiry of the Defect Liability Period.

Signature and Seal of the guarantor
Name of Bank
Address
Date

* An amount shall be inserted by the Guarantor, representing the percentage the Contract Price specified in the Contract including additional security for unbalanced Bids, if any and denominated in Indian Rupees.

BANK GUARANTEE FOR ADVANCE PAYMENT(NA)

То

 [name of Employer]
 [address of Employer]
 [name of Contractor]

Gentlemen :

In accordance with the provisions of the Conditions of Contract, sub-clause 51.1 Payment") of the above-mentioned Contract, [name: [name: name:		
address of Contractor] (hereinafter called "the Contractor") shall deposit with		
[name of Employer] a bank guarantee to guarantee hi	is proper	
and faithful performance under the said Clause of the Contract in an amount of		
[amount of Guarantee]* [in	ı words].	
We, the [bank of financial institution], as instruc	ted by the	
Contractor, agree unconditionally and irrevocably to guarantee as primary obligator Surety merely, the payment to [name of Em	r and not as	
his first demand without whatsoever right of obligation on our part and without his f	first claim to	
the Contractor, in the amount not exceeding [amount of		
guarantee]* [in words].		
We further agree that no change or addition to or other modification of terms of the Contractor or Works to be performed there under or of any of the Contract documents which may be made between [name of Employer] and the Contractor, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.		
This guarantee shall remain valid and in full effect from the date of the advance pay the Contract until [name of Employer] re repayment of the same amount from the Contractor.		
Yours truly,		

Signature and Seal of the guarantor
Name of Bank
Address
Date

* An amount shall be inserted by the Bank or Financial Institution representing the amount of the Advance Payment, and denominated in Indian Rupees.

INDENTURE FOR SECURED ADVANCES FORM 31

(for use in cases in which the contract is for finished work and the contractor has entered into an agreement for the execution of a certain specified quantity of work in a given time).

This indenture made the ______ day of ______, 20_____ BETWEEN _______ (hereinafter called the contractor which expression shall where the context so admits or implies be deemed to include his executors, administrators and assigns) or the one part and the Employer of the other part.

Whereas by an agreement dated ______ (hereinafter called the said agreement) the contractor has agreed.

AND WHEREAS the contractor has applied to the Employer that he may be allowed advanced on the security of materials absolutely belonging to him and brought by him to the site of the works the subject of the said agreement for use in the constructions of such of the works as he has undertaken to executive at rates fixed for the finished work (inclusive of the cost of materials and labour and other charges).

AND WHEREAS the Employer has agreed to advance to the Contractor the sum of Rupees

______ on the security of materials the quantities and other particulars of which are detailed in Accounts of Secured Advances attached to the Running Account bill for the said works signed by the Contractor on ______ and the Employer has reserved to himself the option of making any further advance or advances on the security of other materials brought by the Contractor to the site of the said works.

Now THIS INDENTURE WITNESSETH that in pursuance of the said agreement and in consideration of the sum of Rupees ______ on or before the execution of these presents paid to the Contractor by the Employer (the receipt where of the Contractor doth hereby acknowledge) and of such further advances (if any) as may be made to him as a for said the Contractor doth hereby covenant and agree with the President and declare as follows:

- (1) That the said sum of Rupees _______ so advanced by the Employer to the Contractor as aforesaid and all or any further sum of sums advanced as aforesaid shall be employed by the Contractor in or towards expending the execution of the said works and for no other purpose whatsoever.
- (2) That the materials details in the said Account of Secured Advances which have been offered to an accepted by the Employer as security are absolutely the Contractor"s own propriety and free from encumbrances of any kind and the contractor will not make any application for or receive a further advance on the security of materials which are not absolutely his own property and free from encumbrances of any kind and the Contractor indemnified the Employer against all claims to any materials in respect of which an advance has be made to him as aforesaid.
- (3) That the materials detailed in the said account of Secured Advances and all other materials on the security of which any further advance or advances may hereafter be made as aforesaid (hereafter called the said materials) shall be used by the Contractor solely in the execution of the said works in accordance with the directions of the Engineer-in-Charge.

- (4) That the Contractor shall make at his own cost all necessary and adequate arrangements for the proper watch, safe custody and protection against all risks of the said materials and that until used in construction as aforesaid the said materials shall remain at the site of the said works in the Contractor"s custody and on his own responsibility and shall at all times be open to inspection by the Competent authority or any officer authorized by him. In the event of the said materials or any part thereof being stolen, destroyed or damaged or becoming deteriorated in a greater degree than is due to reasonable use and wear thereof the Contractor will forthwith replace the same with other materials of like quality or repair and make good the same required by the Engineer-in-Charge.
- (5) That the said materials shall not be any account be removed from the site of the said works except with the written permission of the Competent authority or an officer authorized by him on that behalf.
- (6) That the advances shall be repayable in full when or before the Contractor receives payment from the Employer of the price payable to him for the said works under the terms and provisions of the said agreement. Provided that if any intermediate payments are made to the Contractor on account of work done than on the occasion of each such payment the Employer will be at liberty to make a recovery from the Contractor's bill for such payment by deducting there from the value of the said materials than actually used in the construction and in respect of which recovery has not been made previously, the value for this purpose being determined in respect of each description of materials at the rates at which the amounts of the advances made under these presents were calculated.
- (7) That if the Contractor shall at any time make any default in the performance or observance in any respect of any of the terms and provisions of the said agreement or of these presents the total amount of the advance or advances that may still be owing of the Employer shall immediately on the happening of such default be re-

payable by the Contractor to be the Employer together with interest thereon at twelve per cent per annum from the date or respective dates of such advance or advances to the date of repayment and with all costs, charges, damages and expenses incurred by the **Employer** in or for the recovery thereof or the enforcement of this security or otherwise by reason of the default of the Contractor and the Contractor hereby covenants and agrees with the **Employer** to reply and pay the same respectively to him accordingly.

- (8) That the Contractor hereby charges all the said materials with the repayment to the Employer of the said sum of Rupees _______ and any further sum of sums advanced as aforesaid and all costs, charges, damages and expenses payable under these presents PROVIDED ALWAYS and it is hereby agreed and declared that notwithstanding anything in the said agreement and with- out prejudice to the power contained therein if and whenever the covenant for payment and repayment here-in-before contained shall become enforceable and the money owing shall not be paid in accordance there with the **Employer** may at any time thereafter adopt all or any of the following courses as he may deem best :
 - (a) Seize and utilize the said materials or any part thereof in the completion of the said works on behalf of the contractor in accordance with the provisions in that behalf contained in the said agreement debiting the contractor with the actual cost of effecting such completion and the amount due to the contractor with the value of work done as if he had carried it out in accordance with the said agreement and at the rates thereby provided. If the balance is against the contractor, he is to pay same to the **Employer** on demand.
 - (b) Remove and sell by public auction the seized materials or any part there of and out of the moneys arising from the sale retain all the sums aforesaid repayable or payable to the **Employer** under these presents and pay over the surplus (if any) to the Contractor.
 - (c) Deduct all or any part of the moneys owing out of the security deposit or any sum due to the Contractor under the said agreement.
- (9) That except in the event of such default on the part of the contractor as aforesaid interest on

the said advance shall not be payable.

(10) That in the event of any conflict between the provisions of these presents and the said agreement the provisions of these presents shall prevails and in the event of any dispute or difference arising over the construction or effect of these presents the settlement of which has not been here-in-before expressly provided for the same shall be referred to the Employer whose decision shall be final and the provision of the Indian Arbitration Act for the time being in force shall apply to any such reference.

LETTER OF ACCEPTANCE

(Letterhead paper of the Employer)

____(Date)

_____ (Name and address of the Contractor)

Dear Sirs,

То

This is to notify you that your Bid dated	for execution of the
(nai	ne of the contract and identification number, as
given in the Instructions to Bidders) for the Contr	act Price of Rupees
() (amount in words and figures), as
corrected and modified in accordance with the Inst	structions to Bidders ¹ is hereby accepted by our
agency.	

You are hereby requested to furnish Performance Security, in the form detailed in Para 34.1 of ITB for an amount equivalent to Rs._____ within 21 days of the receipt of this letter of acceptance valid up to 60 days from the date of expiry of defects Liability Period i.e. up to

and sign the contract, failing which action as stated in Para 34.3 of ITB will be taken.

You"re faithfully,

Authorized Signature Name and title of Signatory Name of Agency

Issue of Notice to proceed with the work

(Letterhead of the Employer)

(Date)

_____ (Name and address of the Contractor)

Dear Sirs,

То

Pursuant to your furnishing the requisite security as stipulated in ITB Clause 34.1 and signing of the Contract for the construction of ______

______at a Bid Price of Rs.______.

You are hereby instructed to proceed with the execution of the said works in accordance with the contract documents.

You're faithfully,

(Signature, name and title of signatory authorized to sign on behalf of Employer)

AGREEMENT FORM

Agreement

This agreement, made the	day of	between
	_ (name and address of	of Employer) [hereinafter called "the Employer]
and		
		(name and address

of contractor) hereinafter called "the Contractor" of the other part.

Whereas the Employer is desirous that the Contractor execute

(name and identification number of Contract) (Hereinafter called "the Works") and the Employer has accepted the Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein, at a cost of Rs.

NOW THIS AGREEMENT WITNESSETH as follows:

- 1. In this Agreement, words and expression 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 any defects therein in conformity in all aspects with 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 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.
- 4. The following documents shall be deemed to form and be ready and construed as part of this Agreement viz.
 - i) Letter of Acceptance
 - ii) Notice to proceed with the works;
 - iii) Contractor"s Bid
 - iv) Condition of Contract: General and Special
 - v) Contract Data
 - vi) Additional condition
 - vii) Drawings
 - viii) Bill of Quantities and
 - ix) Any other documents listed in the Contract Data as forming part of the Contract.

In witnessed whereto the parties there to have caused this Agreement to be executed the day and year first before written.

The Common Seal of ______ Was hereunto affixed in the presence of:

Signed, Sealed and Delivered by the said _____

in the presence of: Binding Signature of Employer _____

Binding Signature of Contractor _____

UNDERTAKING

I, the undersigned do hereby undertake that our firm M/s ______ agree to abide by this bid for a period ______ days for the date fixed for receiving the same and it shall be binding on us and may be accepted at any time before the expiration of that period.

(Signed by an Authorised Officer of the Firm)

Title of Officer

Name of Firm

DATE

ADDITIONAL CONDITIONS

- Item for which no rate or price have been entered in, will not be paid for by the employer when executed and shall be deemed covered by the other rates and prices in the bill quantities (Refer: ITB Clause 13.2 and conditions of contract Clause 43.3).
- 2. Unit"s rate and prices shall be quoted by the bidder in Indian Rupee (ITB Clause 14.1).
- 3. Where there is a discrepancy between unit rate and the line item total resulting from multiplying the unit rate by quantity, the unit rate quoted shall govern (ITB clause 27.1(b)).
- 4. The agency to whom the work is allotted will have to produce original voucher for all quantities in lieu of purchase of bitumen, steel and cement from the original manufacture or the authorized dealer/ distributors to the satisfaction of the Competent authority for ascertaining the genuineness of material. Attested copy of such voucher will have to be submitted along with the bills.
- 5. The documentary proof of procurement of cement & steel from the reputed source and test result from CRRI or Sri Ram Test House, New Delhi will be produced by the agency.

QUALITY CONTROL LAB:

- 6. Deleted.
- 7. The quality control tests which are carried out by the department and the material for such tests will be supplied by the contractor free of cost. In case the material is not found up to the requirement, the same will be rejected.
- **8.** Contractor shall provide suitable measuring arrangement and levelling instruments (auto level, total station etc) latest quality duly approved by Engineer-in-Charge-in-charge at the site of work.
- 9. No extra payment on account of quality control measures shall be paid to the contractor.
- **10.** The Competent authority at his discretion can get any type/Nos. of tests carried out any other approved laboratory for his satisfaction for which all the expenses incurred would be borne by the agency. The results so obtained from the laboratory would be acceptable and binding to the agency.
- **11.** The Contractor shall be required to provide all such materials/equipment"s at site to conduct field tests and to ensure that the quality of aggregate shall be according to the prescribed specification and no payment for material required for sample for such tests shall be made to him. In case, the material is not found up to mark, the same will be rejected.
- 12. For cement, steel and similar other material, the essential tests are to be carried out at the manufacturer's plants or at laboratories other than the site laboratory, the cost of samples, testing and furnishing of test certificates shall be borne by the contractor. He shall also furnish the test certificates to the Engineer-in-Charge.

PROFORMA FOR CEMENT/STEEL REGISTER <u>RECEIPT</u>

Date o	of Receipt	Qty. Received.	Progressive Total]	Date of issue
	1.	2.	3.		4.
Qty. of	f issued	Total issued.	Balance in hand.	Contra	ctor"s initial
5.		6.	7.	8.	
Daily o		App. Qty. of work done on each day.	Theoretical requirement for work done On each day.	Engineer or his represen tative	/ Remarks
9.	10.	11.	12.	13	14

- 13. Contractors are advised to visit the site sufficiently in advance of the date fixed for submission of the tender. A contractor shall be deemed to have full knowledge of all the relevant document/samples and site etc. whether he inspects them or not.
- 14. The acceptance of the tender will rest with the Employer who does not bind himself to accept the lowest tender and reserves to himself the authority to reject any or all the tenders received without assigning any reasons.
- 16. Deleted.
- 17. Deleted.
- 18. The liquidated damages can be deferred/reduced/waived (whole or part) by the Vice Chancellor CRSU JIND. This will be done on the written request of the contractor and written recommendations of the Monitoring committee CRSU JIND.
- 19. Upon completion and before offering the work for acceptance, the contractor shall remove all false work, excavated and useless materials, rubbish, temporary building constructed by him and shall leave the site and adjacent area in a neat and clean condition to the entire satisfaction of the Engineer-in-Charge. The Engineer-in-Charge, reserves the option to take away any item of work or any part thereof at any time

during the currency of the contract and reallocate it to any other agency with due notice to the contractor without liability of any kind or payment of any compensation. Extra amount if incurred will be recovered from the agency.

20. The contractor has to make his own arrangements for water, bricks, wood and every item required directly or indirectly for completion of work.

- 21. No claim shall be entertained on account of increase in price of labour and material due to any cause whatsoever.
- 22. In case of emergency the Contractor shall be required to pay his labour every day and if this is not done, the Competent authority will make the requisite payment and recover the same from the contractor.
- 23. Actual quantities of completed and accepted work shall only be paid.
- 24. No pits shall be dug by the contractor near the site of work or within Govt. land for taking out earth for use on the works. In case of default the pits so dug will be filled in by the department at the cost of the contractor plus 14% departmental charges.
- 25. The rates to be quoted by the contractor shall be inclusive of octroi terminal tax, royalty, cess and all other taxes and charges. These are for complete work in all respects
- 26. The Contractor shall not be entitled for any payment on account of work done until he signs the agreement.
- 27. Nothing extra shall be paid for any lead and if unless otherwise specified for any material required directly or indirectly and the rates to be given in the tender shall include all leads in the contract schedule.
- 28. The Contractor shall be responsible for any /all losses of material, damage done to unfinished work as a result of floods and other acts of God. The Govt. will not be responsible for any compensation as a result of such damage or loss to the Contractor and the Contractor shall be liable to set right such damage at his own cost to the satisfaction of the Engineer-in-Charge.
- 29. The royalty, sales tax, cess and any other taxes, if any shall be paid by the contractor direct to the respective department in accordance with their rules and regulations in force from time to time without intervention of the CRSU JIND.
- 30. Amount of work may be increased or decreased and any item omitted and substituted in accordance with the requirement of the department and no claim on this amount shall be entertained. The contractor will have to complete the whole work as per architectural plans.
- 31. Contractor shall be responsible to provide to the entire satisfaction of the Competent authority at his own expenses the following amenities for the labour employed by him.
- (i) Suitable temporary huts accommodation.
- (ii) Trench latrines, bathing enclosures platforms separately for men and women and their regular cleanliness.
- (iii) Clean drinking water.

In the event of his failure to provide any or all of the amenities the same shall be provided by the Govt. and cost thereof shall be recovered from the contractor. Any dispute regarding above points shall be settled by the Competent authority and his decision shall be final.

32. The contractor shall be responsible for housing, sanitation and medical treatment of labourers employed by him and shall abide by all the rules and regulations made by Govt. in this behalf from time to time.

- 33. For Contractor's labour regulations, fair wage clause, and rules for protection of health and sanitation arrangements for workers employed by the public works department or its contractor's reference be made to chapter 7, 8 and 9 respectively.
- 34. The jurisdiction of the Court will be at Jind.
- 35. Apprentice Act- The Contractor shall comply with the provisions of the Apprentice Act, 1961 and the rules and orders issued there-under from time to time. If the Contractor fails to do so his failure will be breach of the contract the Employer may at his discretion cancel the contract. The Contractor shall also be liable for any liability arising on account of any violation by him of the provision of the Act.
- 36. If during the execution of the work, the contractor will engage imported labour, he shall immediately inform the local health authorities entrusted.
- 37. Imported labour means Labour belonging to a state other than Haryana State.
- 38. All material left at site by the contractor for a period of more than one month after the completion of work shall become the property of the public works department and Contractor shall have no claim whatsoever for such material.
- 39. The Contractor shall maintain at site of work full details of specification of the work fixed by the Competent authority and approved drawing of the work.
- 40. Nothing extra shall be paid to the Contractor for diversion of water in the channels stream if it becomes necessary for the execution and completion of the work.
- 41. The Contractor will not have any claim in case of delay by the Department for removal of tree or shifting, raising, removing of telegraph, telephone or electric lines (Over head or underground) and other structure, if any, which comes in the way of the work.
- 42. The single percentage rate should be quoted by the Contractor and no condition should be given. In case any condition is tendered this will be considered as null and void and only item rates quoted by the contractor shall be accepted. In case any contractor refuses to accept this his earnest money will be forfeited.

43. **Relation with Public Authorities:**

The Contractor shall comply with all legal orders and directions given from time to time by any local or public authorities and shall pay out of his own money the fees or charges to which he may be liable.

44

- (i) The contractor will be held strictly responsible to the true intent of the specification in regard to quality of materials, workmanship and the diligent execution of the contract.
- (ii) All materials and each part of detail of the work shall be subject at all times to inspection by the Competent authority or Departmental Representative or other authorized subordinate who shall be furnished with reasonable facilities and assistance by the contractor for ascertaining whether or not the work as performed or the materials used are in accordance with the requirements and intent of the plans and specifications.

Page 102 of 119

- (iii) The contractor shall furnish written information to the Competent authority stating the original source of supply and dates of manufactures of all materials manufactured away from the actual site of work. The information shall be furnished at least two weeks or such other period as may be directed by Competent authority in advance of the incorporation of any such materials in the works as per Performa of Material inspection report. MIS Performa will be supplied by Engineer
- (iv) Any work done or materials used without supervision or inspection by the Engineer-in-Charge/Departmental/employer Representative is liable to be ordered to be removed and replaced at the contractor"s expenses.
- (v) If so directed the Contractor shall at any time before the acceptance of the work, remove or uncover such portion of the finished work as may be directed. After examination, the contractor shall restore the said portion of the work to the standards required as per specifications. The work shall not be considered to have been completed in accordance with the terms of the contract until the Engineer-in-Charge-in-charge shall have certified in writing that it has been completed to his satisfaction. No approval of materials or workmanship or approval of part of the work during the progress of execution shall bind the Engineer in any way or effect his power to reject the work when alleged to be completed or to suspend the issue of his certificate of completion until such alterations or modifications or reconstructions have been affected as shall enable him to certify that the work has been completed to his satisfaction.
- (vi) The inspection of the work or materials shall not relieve the Contractor any of his obligation to full fill the terms of the contract as herein prescribed by the plans and specifications.
- (vii) Failure to reject any defective work or material will not in any way prevent later rejection when such defect is discovered or obligate the department to make final acceptance.
- 46. Canvassing in connection with a tender in any form renders the tender liable to rejection.
- 47. If there are varying or conflicting provisions made in any documents forming part to the contract the accepting authority shall be the decision authority with regarded to the intension of the documents.
- 48. Shop drawing for with detail specifications, key diagrams of each specialized work will be submitted and got approved from the university authorities before commencing the work.
- 49. If, however, the contractor seeks to some assistance from the department in connection with arranging water/electric connection from the public utility service authorities for the purpose of Govt. work such assistance only to the extent of writing a letter from the Competent authority to the authority concerned for giving such connection may be provided. All charges etc. shall be borne by the contractor.

MAINTAINENCE-CUM-DEFECT LIABILITY PERIOD

- 50 The defect liability-cum-maintenance period shall be (36) thirty six months from the date of completion. The date of completion shall be considered as the date certified by the Engineer-In-Charge.
- 50.1 The Engineer shall give notice to the contractor of any defects before the end of the effects Liability-cum-Maintenance Period. The Defects Liability-cum-Maintenance period shall be extended for as long as defects remain to be corrected.
- 50.2 The Contractor shall correct the notified Defect / Defects within the length of time as specified by the Engineer"s, notice.
 - 50.3 The contractor will be fully responsible for the quality and workmanship of the works executed by him. The liability on account of shortcomings in executed items found by any investigating agency during the defect liability period or afterwards shall be borne by the contractor.
 - 50.4 The Contractor shall do the routine maintenance of fixtures and GDS to the required standards in the manners as per Haryana PWD B&R specifications latest edition, DNIT, agreement conditions and keep the whole building in defect free condition during defect liability period as defined above.
 - 50.5 The routine maintenance standards shall meet the following minimum requirements to the entire satisfaction of Engineer-in-charge.:
 - i) Deleted.
 - ii) Defective joinery such as door, window, cup-board shutters, chowkhats, wire gauge, glass panes, fitting, fixtures etc. to be rectified / replaced immediately after the defects appear.
 - iii) Any structural damage / fault / defect to be rectified to the satisfaction of Competent authority as soon as the same appears.
 - iv) Deleted.
 - v) Deleted.
 - vi) Leakage of water of any kind in the fixtures to be set right immediately on priority.
 - vii) All electrical / Public Health installations including wiring, pipelines etc. made in the building to be repaired / rectified / replaced as soon as any defect has appeared / notice.
 - viii) The agency shall make good all the items / works damaged during the repair being done by him and bring the same in original form.
 - ix) Any other maintenance operation required to keep the building use worthy at all the time during the maintenance period.
 - x) He shall maintain a register in the building for daily recording the defects, damages, shortcomings noticed by user and address the problem within three days or else he will approach the Competent authority for extension of this time.

x) **Deleted**.

- 50.6 To full fill the objectives laid down in above sub clauses, the Contractor shall undertake detailed inspection of the building at least once in a month. The Competent authority can reduce this frequency in case of emergency. The Contractor shall forward to the Competent authority the record of inspection and rectification every month. The contractor shall pay particular attention on the maintenance of building during rains and rainy season.
- 50.7 The Engineer may issue notice to the Contractor to carry out maintenance or remove defects, if any, notice in his inspection, or brought to his notice. The contractor shall remove the defects within the period specified in the notice and submit to the Competent authority a compliance report. By not giving notice, will not absolve the contractor from his responsibility.
- 50.8 In case the Contractor fails to make good the defects, the Registrar may employ any other person to make good such defects and all expenses consequent and incidental there to shall be borne by the Contractor.
- 50.9 The contract shall not be considered as completed until a defect liability-cum-maintenance certificate has been signed by the Engineer in charge and approved by employer and delivered to the contractor stating that the works have been completed and maintained to his satisfaction.
- 51. Department shall not be responsible for any depreciation in the value of securities, not for any loss of interest thereon.
- 52. Deleted.
- 53. If the agency does not fill/quote the rates of any items then it will be considered as NIL and same will be executed by the agency free of cost and it will be contingent to work. The agency will have to give an undertaking on account of above, otherwise earnest money will be forfeited; in addition, Competent authority my also blacklist the agency.

54. A. FOR EXCESS CONSUMPTION OF MATERIALS FROM THE THEORETICAL CONSUMPTION

(i) No Claim for Excess Consumption of material other than those specified shall be entertained by the department.

B. <u>DELETED</u>

- (i) Deleted.
- (ii) Deleted.

55 No claim of any kind what-so-ever shall be entertained for any and all the losses or damages to the

contractor due to the completion of the work getting delayed due to the failure or delay on the part of the public works department under the terms and conditions of the contract.

56. The contractor shall supply at his own cost and expenses all labour materials etc. for labour and checking of any portion of the work during construction. Whosesoever required by the Competent authority or his representative and nothing extra shall be paid for same.

57. Occupation of Additional Lands:

In case, when it becomes necessary for due fulfilment of the contract for the contractor to occupy land outside the CRSU JIND limits the contractor shall make his own arrangement with the land owners and pay such amount, as may be mutually agreed upon by them.

- No claim by the contractor for additional payment will be allowed on the ground of any misunderstanding or misapprehension in respect of any such matter or otherwise on the ground of any allegation or fact that incorrect information was given to him by any person whether in the employ of the Govt. or not or of the failure on his part to obtain correct information nor shall the contractor be relieved from any risk or obligations imposed on or undertaken by him under the contract on any such ground or on the ground that he did not or could not fore-see any matter which may in fact, effect or have affected the execution of the work.
- 59. During the absence on work of the Competent authority he shall be represented by one of his subordinate whose duties are to watch and supervise the works, to test and examine any materials to be used or workmanship employed to ensure that the works are performed in conformity with the plans, estimates and specifications in all respects and to keep Competent authority informed of the progress of the works and the manner in which they are done. The Competent authority may from time to time delegate any of the powers and authorities vested in him to the departmental representative in writing.
- 60. The engineer's representative shall have no authority to alter or waive the provisions of plans and estimates and specifications or to relieve the contractor or any of his duties or obligations under the contract. He shall however, have the authority to inform the contractor in writing to replace any materials considered defective and to suspend, to do, or rectify the work improperly performed or not according to plans and estimates or specifications in his judgment and the contractor shall comply.
- 61. Failure of the engineer's Representative to disapprove any work of materials shall not prejudice the power of the Competent authority thereafter to disapprove such work or materials and to order the pulling down, removal or breaking up thereof. If the contractor shall be dissatisfied by reason of any decision of the Departmental representative, he shall be entitled to refer the matter to the Engineer-in-Charge. Who shall thereupon confirm or reverse such a decision.
- 62. The contractor shall also inform the Competent authority in writing when any portion is ready for inspection giving him sufficient notice to enable him to inspect the same without retarding the further progress of the work.
- 63. Deleted.
- 64. Deleted.
- 65. The contractor will submit the design of temporary structure scaffolding to department in advance without any cost. The contractor will remain responsible for design and safety of scaffolding irrespective of approval by the Engineer-in Charge
- 66. Deleted.

Contractor's Labour Regulation

1. Short Title

These regulations may be called Haryana Public Works Department Contractor"s Labour Regulations.

2. Definition

In these regulations, unless otherwise expressed or indicated the following words and expressions shall have the meaning hereby assigned to them respectively that is to say :

- (1) Labour means workers employed by CRSU JIND contractors directly or indirectly through a sub-contractor or other persons of by an agent on his behalf.
- (2) Fair wages means, whether for item or place work, notified at the time of inviting tenders for the work and where such wages have not been so notified the wages prescribed by the Public Works, Department for the district in which the work is done.
- (3) "Wages" shall have the same meaning as defined in the payment of Wages Act 1936 and includes time and place rate wages.

3. Display of notice regarded wages etc.

The contractor shall before he commences his work on contract display and correctly maintain & continue to display and correctly in a clean and legible condition in conspicuous places on the work notice in English and in the Local Language spoken by the majority of the Workers giving the fair wages notified or prescribed by the Haryana Public Works Department and the hours of work for which such wages are earned.

4. Payment of Wages

- (i) Wages due to every worker be paid to him directly.
- (ii) All wages shall be paid in current coin or currency or in both.

5. Fixation of Wages Periods

- (i) The contractor shall fix the wage periods in respect of which the wages shall be payable.
- (ii) No wage period shall exceed one month.
- (iii) Wages of every workman employed on the contract shall be paid before the expiry of ten days after the last day of the wage period in respect of which the wages are payable.
- (iv) When the employment of any worker is terminated by or on behalf of the Contractor, the wages, earned by him shall be paid before the expiry of succeeding the one on which his employment is terminated.

(v) All payment of wages shall be made on a working day.

6. Wages Book and Wages Slip etc.

- (i) The contractor shall maintain a wage book of each worker in such form as may be convenient but the same shall include the following particulars
 - (a) Rate of daily or monthly wages.
 - (b) Name of work on which employed.
 - (c) Total numbers of days worked during each wage period.
 - (d) Total amount payable for the work during each wage period.
 - (e) All deductions made from the wages with an indication in each case of the ground for which the deduction is made.
 - (f) Wages actually paid for each wage period.
- (ii) The contractor shall also maintain a wage slip for each worker employed on the work.
- (iii) The authority competent to accept the contract may grant an exemption from the maintenance of Wages book and Wage Slips to a contractor who in his opinion may not directly or indirectly employ more than 100 persons in the work.

7. Fines and deductions which may be made from wages

- (1) The wages of a worker shall be paid to him without any deduction of any kind except the following :
 - (a) Fines.
 - (b) Deductions for absence from duty i.e. from the place or places where by the terms of his employment he is required to work. The amount of deduction shall be in proportionate to the person for which he was absent.
 - (c) Deductions for damage to or loss of goods expressly entrusted to the employed person for custody or for loss of money for which he is required to account where such damage or loss is directly attributable to his neglect or default.
 - (d) Any other deductions which the CRSU JIND may from time to time allow.
- 2.) No fine shall be imposed on a worker and no deduction for damage or loss be made from his wages until the worker has been given an opportunity of showing cause against such fines or Deductions.
- 3.). The total amount of fine which may be imposed in any one wage period on a worker shall not exceed an amount equal to 50 paisa in a rupee of the wage payable to him in respect of that Wage period.
- 4.) No fine imposed on any worker shall be recoverable from him by instalments or after the Expiry of 60 days from the date on which it was imposed.

8. Register of Fine etc.

- 1. The contactor shall maintain a register of fine and of all deductions for damage or loss such Register shall maintain the reason for which fine was imposed or deduction for damage or loss was made.
- 2. The contractor shall maintain, a list in English and local Indian Language clearly defining acts and commissions for which penalty of fine can be imposed. He shall display such list and maintain it in a clean and legible condition in conspicuous places on the work.

9. Preservation of Books

The wage book, the wage slips and the Register of lines, deductions required be maintained under these regulations shall be preserved for 12 months after the date of last entry made in them.

10. Power of Labour Welfare Officer to make Investigation of Enquiry

The Labour Welfare Officer or any person authorized by the Government on their behalf shall have power to make enquiries with a view to ascertaining and enforcing due and proper observance of the wage clause and provisions of their regulations. He shall investigate into any complaint regarding the default made by the Contractor or sub-Contractor in regard to such provisions.

11. Report of Labour Welfare Officer

The Labour Welfare Officer or any other person authorized aforesaid shall submit a report of the result of his investigations enquiry to the Registrarconcerned indicating the extent, if any, to which the default has been committed and the amount of fine recoverable in respect of the acts or commission and omission of the labourer with a note that necessary deduction from contractor's will be made and the wages and other dues be paid to the labourers concerned.

12. Appeal against the decision of Labour Welfare Officers

Any person aggrieved by the decision and recommendation of the Labour Welfare Officer or other person so authorized may appeal against decision to the Labour Commissioner but subject to such appeal the decision of the officer shall be final and binding upon the Contractor.

12A- No party shall be allowed to be represented by a lawyer during any investigation, enquiry appeal or any other proceedings under these regulations.

13. Inspection of Register

The contractor shall allow inspection of the Wage Book. Wage Slips to any of his workers or to his agent at a convenient time and place after due notice is received, or to the Labour Welfare Officer or any other person authorized by the Haryana Government in his behalf.

14. Submission of Returns

The contractor shall submit periodical as may be specified from time to time.

15. Amendment

The Haryana Government may, from time to time and to amend these regulations, the decision of the Labour Commissioner, Haryana Government or any other person authorized by the Haryana Government in that behalf shall be final.

Registrar CRSU JIND

III-FAIR WAGES CLAUSES

FAIR WAGE CLAUSES

- (a) The Contractor shall pay not less than the fair wage to labourers engaged by him on the work.
- **EXAMINATION :-** Fair Wage" means wage whether for time of piece work notified from time to time for the area and where such wages have not been so notified the wages specified by the Public Works Deptt. Haryana for the district in which the work is done.
- (b) The Contractor shall not withstanding the provisions of any agreement to the contrary, caused to be paid fair wages to labour, indirectly engaged on the work including any labour engaged by his sub-contractors in connection with the said work, as if the labourers had been directly employed by him.
- (c) In respect of labour directly or indirectly employed on the works for the performances of the contractor"s part on this agreement the contractor shall comply with or cause to be complied with the Haryana PWD B&R Contractor"s Labour"s Regulations made by the Government from time to time in regard to payment of wages wage period deductions from wages recovery of wages not paid and deductions unauthorized made maintenance of wage register wage book, wage slip, publication of wages and other terms of employment inspection and submission of periodical returns and all other matters of a lime nature.
- (d) The Engineer in charge concerned shall have the rights to deduct, from the moneys due to the Contractor, any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non-fulfilment of the conditions of the contract for benefit of the workers, non payment of wages or deductions made from his or their wages, which are not justified by terms of the contract for non observance of the regulations referred to in clause (c) above.
- (e) Vis-à-vis the Haryana Government, the Contractor shall be primarily liable for all payments to be made under and the observance of the regulations aforesaid without prejudice to his right to claim indemnity from his sub Contractors.
- (f) The regulations shall be deemed to be a part of this contract and any branch there shall be deemed to be branch of this contract.

Registrar CRSU JIND

RULES FOR PROTECTION OF HEALTH & SANITARY ARRANGEMENTS

Rules for the Protection of Health and Sanitary Arrangements for Workers Employed by the Haryana Public Works Department or its Contractors

The Contractor shall at his own expense provide or arrange for the provision of foot wear for any labour doing cement mixing work (the Contractor has undertaken to execute under this contract) to the satisfaction of the Engineer - in - charge and on his failure to do so CRSU JIND shall be entitled to provide the same and recover the cost thereof from Contractor.

The Contractor shall submit by the 4th and 19th of every month to the Engineer in charge a true statement showing in respect of the second half of the preceding month and the first half of the current month respectively (i) the number of labourers employed by him on the work (ii) their working hours (iii) the wages paid to them (iv) the accident that occurred during the said forthright showing the circumstances under which they happened and the extent of damage and injury caused by them and (v) the number of female workers who have been allowed Maternity benefit according to clause 19-F and the amount paid to them failing which the Contractor shall be liable to pay to CRSU JIND a sum not exceeding Rs. 50/- for each default or materially incorrect statement. The decision of the Engineer in charge shall be final in deducting from any bill due to the contractor the amount levied as fine.

Maternity benefit for female workers employed by the Contractor, leave and pay during leave shall be regulated as follow: -

- 1. LEAVE (i) in case of delivery/maternity leave not exceeding 8 weeks (4 weeks up to and including the day of delivery and 4 weeks following that day) (ii) in case of miscarriage : up to 3 weeks from the date of miscarriage.
- 2. PAY (i) In case of delivery, leave pay during maternity leave will be at the rate of the woman"s average daily earning calculated on the total wages earned on the day when full time work was done during a period of 3 months immediately preceding the date of which she gives notice that she excepts to be confined or at the rate of Rs. 150/- per day whichever is greater.
- (ii) In case of miscarriage, Leave pay at the rate of average daily earning calculated on the total wages earned on the days when full time work was done during a period of 3 months immediately preceding the date of such miscarriage.
- (iii) Conditions for the grant of Maternity leave: No Maternity leave benefit shall be admissible to a woman unless she produces a certificate of confinement and excepted delivery within 4 weeks preceding the date on the proceeds on leave.
 - 3. FIRST AID (a) At every work place, there shall be maintained in readily accessible place first aid appliances including an adequate supply of sterilized dressing and cotton wools. The appliances shall be kept in good order and in large workplaces it shall be placed under the charge of a responsible person who shall be readily available during the working hours.
- (b) All large work places where hospital facilities are not available within easy distance of the work, first aid post shall be established and be run by a trained compo under.
- (c) Where large work places are remote from regular hospital an indoor ward shall be provided with

one bed for every 250 employees.

(d) Where large work places are situated in cities, towns in their suburbs and no beds are considered necessary owing to the proximity of city or town hospitals a suitable transport shall be provided to facilitate removal of urgent cases to these hospitals.

At other work place, the conveyance facilities such as car shall be kept readily available to take injured or persons suddenly taken seriously ill, to the nearest hospital.

SCALES OF ACCOMMODATION IN LATRINES URINALS

These shall be provided within the precinct of every work places, Latrines and Urinals in an accessible place and the accommodation separately for each of them shall not be less than the following scales : -

No. of Shades

(a) Where the number of persons does not exceed 50	2
(b) Where the number of persons exceeding 50 but does not exceeds 100	3
(c) For every additional 100	3 per 100

In particulars cases the Engineer in charge shall have the powers to vary the scale where necessary.

Latrines and Urinals for women

If women are employed, separate latrines and urinals screamed from these for men and marked in vernacular in conspicuous letters "FOR WOMEN ONLY" shall be provided on the scale laid in rules, Similarly those for men shall be marked "FOR MEN ONLY" A poster showing the figures of a man and women shall also be exhibited at the entrance of latrine for each sex. There shall be adequate supply of water close to latrines.

LATRINES AND URINAL

Except in work places provided with flush latrines concerned with a water borne sewerages systems all latrines shall be provided with receptacles order earth system which shall be in working order and kept in strictly sanitary conditions. The receptacles shall be tarried inside and outside at least once a year.

The inside walls shall be constructed of masonry or some suitable heat resisting non absorbent material and shall be cement washed inside and outside at least once a year. The dates of cement shall be noted in register maintained for this purpose and kept available for inspection.

DISPOSAL OF EXCRETA

Unless otherwise aggranged for by the local sanitary authority arrangements for proper disposal and a sanitary of excreta by incineration at the work place shall be made by means of a suitable incineration approved by the Asstt. Director of Public Health or Municipal Medical Officer of Health, as the case may be, in whose jurisdiction the work place is situated. Alternately excreta may be disposed of by putting a layer of night soil at the bottom of pucca tank prepared for the purpose and covering it with 9 inches layers of earth for a fortnight when it will turn into manure.

CRECHE:

At every work place these shall be provided free of cost two suitable sheds one main and the other for the use of labour. The height of the shelter shall not be less than eleven feet from the floor level to the lowest part of the roof.

PROVISION OR SHELTER DURING REST:

At every work place at which 50 or more women workers are ordinary employed, these two huts for use of children under the age of six years belonging to such women. One hut shall be used for

infants "Games and to play" and the other as their bed room. The hut shall not be constructed on a lower standard then the following:-

- (i) Thatched roofs.
- (ii) Mud floors and walls.
- (iii) Plants spread over mud floor and covered with mating.

The huts shall be provided with suitable and sufficient opening for light and ventilations. There shall be adequate provision of sweepers to keep the place clean. There shall be two day attendant. Sanitary, utensils shall be provided to the satisfaction of Health Office of the area concerned. The use of the hut shall be restricted to children, their attendant and mothers of the children.

CANTEEN:

A cooked food canteen on a moderate scale shall be provided for the benefit of workers where over it is considered expedient.

GENERAL RULES AS TO SCAFFOLDS:

- (i) Suitable scaffolds shall be provided for all workmen for all works that cannot be safely done from a ladder or by other means.
- (ii) A scaffolds shall not be constructed taken down or substantially altered except.
- (a) Under the supervision of a competent and responsible person, and
- (b) As far as possible by competent workers possessing adequate experience

in this kind of work.

(c) All scaffolds and appliances connected there with and ladder shall :-

1. Be of sound material.

3. Be of adequate strength having regard to the load and strains to which they will be subjected and.

- 4. Be maintained in proper condition.
- 5. Scaffolds shall not be overloaded and so far as practicable, the load shall be evenly distributed.
- 6. Scaffolds shall be so constructed that no part thereof can be displaced in on normal use.
- 7. Before installing, lifting gear on scaffolds special precautions shall be taken to ensure the strength and stability of the scaffolds.
- 8. Scaffolds shall be periodically inspected by the competent person.
- 9. Before allowing a scaffold to be used by the workman, every care shall be taken to see whether the scaffolds have been erected by his workmen and steps taken to ensure that it complies fully with the requirement of the articles.
- 10. Working platforms gangways and stairways shall.
 - (a) Be so constructed that no part of the road is covered.
 - (b) Be so constructed and maintained, having regard to the prevailing condition as to reduce as for as practicable.
 - (c) Be kept free from any unnecessary obstruction.
 - (d) In case of working platforms gangways place and stairways at a height exceeding that to be prescribed by a national laws and regulations :-
 - (i) Every working platform and every gangway shall be closely boarded unless other adequate measures are taken to ensure safety.
 - (ii) Every working platform and every gangway shall have adequate width, and. Every opening in the floor of a building or in working platforms shall except for the time and to the extent required to allow the access of persons or the transport or shifting of material be provided with suitable means to prevent the fall of persons or materials.

When persons are employed on a roof where there is a danger of failing from a height exceeding that to be prescribed by national laws of regulations suitable precautions shall be a taken to prevent the fall of persons or materials.

Suitable precautions shall be taken to prevent persons being struck by articles which might fall from scaffolds or other working places.

- 1. Soft means of access shall be provided to all working platforms another working places.
- 2. Every place where work is carried on the means approach there to shall be adequately lighted.
- 3. Every ladder shall be securely fixed of such length as to provide secure hand held and foot at every position at which it is used.
- 4. Adequate precautions shall be taken to prevent danger from electrical equipment.
- 5. No material on the site shall be so stacked or placed as to cause danger to any person.

GENERAL RULES AS TO SAFETY EQUIPMENT AND FIRST AID

- (1) All necessary personal safety equipment shall be kept and available for use of the persons employed on the site be maintained in condition suitable for immediate use.
- (2) The worker shall be required to use the equipment thus provided and the employed shall take adequate steps to ensure proper use of the equipment by these concerned.

Adequate provision shall be made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.

EXPLANATORY NOTES

- 1. The above rates are for complete work including cost of all materials, labour, tools and plants and water etc. unless or otherwise specified.
- 2. Deleted.
- 3. All clauses and notes given in the Haryana PWD B&R schedule of rates 1988 2nd edition with up to date correction slips issued up to the date of tender shall be applicable to all above items wherever necessary.
- 4. The description, rates, units, etc. of above schedule shall be corrected as per Haryana PWD B&R schedule of rate 1988, 2^{nd} edition in case of any error or omission.
- 5. Chapter numbers with items referred to above are of Haryana PWD B&R schedule of rates $1988\ 2^{nd}$ edition, corrected up to date.
- 6. The whole work shall be carried out strictly in accordance with the Haryana PWD B&R specifications book 1990 latest edition as applicable to Haryana State with up to date correction slips.
- 7. No premium shall be payable on the items which are not provided in the Haryana PWD B&R schedule of rates 1988, 2nd edition, corrected-up-to-date.
- 8. Samples of all building materials, doors and windows, fittings and other articles required for use on the work shall be got approved from the Engineer-in-Charge, Articles manufactured by firms of repute, approved by the Competent authority shall only be used. Only articles classified, as First Quality by the manufactures shall be used. Articles which are not First quality shall be rejected by the Engineer-in-Charge. Preference shall be given to those articles, which bear I.S.I. certification mark. In case articles bearing ISI certification mark are not available, the quality of samples brought by the contractor shall be judged by the standards laid down in the relevant ISI specifications. All materials and articles brought by the contractor to the site of work for use shall confirm to the samples approved, which shall be preserved till the completion of work. Final decision to reject any material shall rest with the Engineer-in-Charge.
- 9. The contractor shall provide suitable measuring arrangements at site for checking of various articles brought by him to ensure mixing in specified proportions.
- 10. The contractor shall provide such recesses, hole, openings etc. as directed by Competent authority as required for the Electrical / sanitary work and nothing shall be payable on this account.
- 11. Thickness of RCC shall be measured and paid for structural sizes adopted.
- 12. Steel used in supports, spacers and for hooks and overlaps, which are not, approved i.e. which are not provided according to the drawing or the instructions of Competent authority shall not be measured for payment.
- 13. Where there is a provision for flush door shutters, only doors as bear the ISI certification marks and arranged from manufacturer of good repute like Green, Duro, century, shall be accepted. In

case flush door shutters bearing ISI certification marks are not available in the market, flush door shutters confirming to ISI specifications and arranged from manufacturer of good repute shall only be accepted. They should be water proof, termite proof and have a guarantee for 10 years for any defect liability.

- 13. Steel butt hinges shall strictly confirm to Indian standard specification, IS-1341-1970 (Latest edition) and dimensions given in table 2 for medium weight cold rolled mild steel butt hinges of the above specifications Hinges shall be of good workmanship and manufactured by the firm of good repute.
- 14. Analysis of rates for non-schedule items which are not provided in the Notice Inviting Tender /

haryana PWD B&R Schedule of Rates, 1988 2nd editions corrected up to date shall be payable as per actual lowest market rates from the recognized public market suitable to the executing division and wages of labour as applicable at the time of execution of work, plus admissible contractors profit and over head charge. For such items of materials the contractor shall be required to produce original vouchers which shall be subjected to verification by the Engineerin-Charge. The rates for non-schedule items shall be approved by the competent authority as recognized in the departmental financial rules in existence at the time of approval.

- 15. First Quality glazed/ceramic/vitrified tiles of reputed manufactures such as Kajaria, RAK, NITCO, Johnson to be arranged by the contractor.
- 16. The Tender with the condition regarding steel work to be done at labour rates shall be considered invalid and rejected straightway.
- 17. The quantities of all items given in the Schedule are tentative. These can be increased or decreased as per working Architectural drawings/structural"s drawings & nothing extra shall be paid.
- 18. For quality control, the contractor shall be required to use cement concrete mix giving minimum cube strength as may be prescribed in the relevant structural drawings of work. For cement concrete and cement mortar work and other items the test should be regularly carried out as per procedure laid down in relevant I.S.I. & other codes at the expense of the contractor.

The rates provided in the H.S.R. 1988 2nd edition included the cost of such testing.

- 19. Irrespective of what is stated in Para 6 of General Rules of Haryana P.W.D. schedule of rates, 1988 2 edition no carriage of cement, steel, bricks and water or any other type or material shall be admissible irrespective of any lead involved.
- 20. All the flooring like terrazzo, Kotah stone or marble flooring should be granite finished. No extra rate shall be paid on this account to the contractor
- 21. Where-ever brick work or earth filling/embankment work is to be executed, the same has to be executed in accordance with the provision in the Fly Ash Notification dated 14.9.99 & 27.8.2003 i.e. by using Fly Ash brick and filling/embankment constructed by Pond Ash/Fly Ash as specified in the aforesaid notification after getting the design approved from Engineer-in-Charge. Only I.S.I. marked factory manufactured flush door shutter ply and block board should be used, where ever required.
- 22. In case factory manufactured items, the contractor will get the name of manufacturers approved form deptt. and a warranty of 5 years certificate in favour of Competent authority in charge. In case of door shutters the type of wood used shall also be given by the manufacturer. The agency shall produced a certificate that door & window shutters fixed at site

manufacturer. The agency shall produced a certificate that door & window shutters fixed at site are actually factory manufactured –in case agency fails to do so the rate for the same shall be

paid for site manufactured shutters as per HSR 17.30 & 17.31 of HSR 1988 2nd edition.

- 24. The agency will provide 2 Nos. SS boards of size 6" X 4" at the site of work intimating the details of the project otherwise deduction will be made from the first running bill of the Agency @ Rs 25000/- per board.
- 25. Contractor will use coarse aggregate (all type of stone grit) and course sand i.e. stone dust (Zone IInd as per IS code). The material should confirming to the latest IS specification.
- 26. Regular and monthly quality control test as per frequency as per IS code specification / PWD B&R specification is to be done by the Contractor at his own cost and submit the result to the

Competent authority regularly and in case if he fails to do the same, Competent authority will got conduct all quality control test as per frequency for any reputed lab & amount of the same will be recovered for the agency. Beside this Competent authority will carry out their own quality control test

- 27. All aluminium fittings for doors and windows shall be of "Classic" or equivalents make confirming to I.S. Specifications as approved by the Engineer-in-Charge.
- 28. All materials used at site will be ISI marked and as per IS standards. All materials will be heavy duty and of reputed brands.
- 29. Daily MIS (Management information System) Reports to be submitted by the contractor to the Engineer in charge or as nominated by the Engineer in charge. The Performa of the MIS reports will be supplied by the Engineer.
- 30. Recovery of all partly completed works not executed as per HSR/approved NS will be made from the running/final bill of the agency.
- 31. In case there is any discrepancy in exhibiting HSR + CP rates, then rates as per notification of Haryana government will be applicable for payment and The payment should be made on the basis of actual work done and measure at site. Rates/Premiums applicable on the date of submission of tender will be applicable.
- 32. The contractor will submit bills of all materials involved in NS items. In case, contractor does not submit bills, GST applied on NS items will be deducted from NS items.
- 33. First class Bricks burnt with coal will be used at site. In case of use of any inferior material, complete payment of that item using inferior material will not be paid to the contractor.
- 34. Action taken reports of rectification of inferior work will be submitted with photographs. In case ATR's not submitted as explained above, payment will not be released for such disputed items.