

मूल कोशिका विज्ञान एवं पुनर्योजी औषधि संस्थान (ब्रिक-इनस्टेम)  
ब्रिक, जैव प्रौद्योगिकी विभाग, विज्ञान एवं प्रौद्योगिकी मंत्रालय, भारत सरकार के अधीन एक स्वायत्त अनुसंधान संस्थान  
Institute for Stem Cell Science and Regenerative Medicine (BRIC- inStem)  
An Autonomous RI of BRIC, Department of Biotechnology, Ministry of Science & Technology, Govt. of India



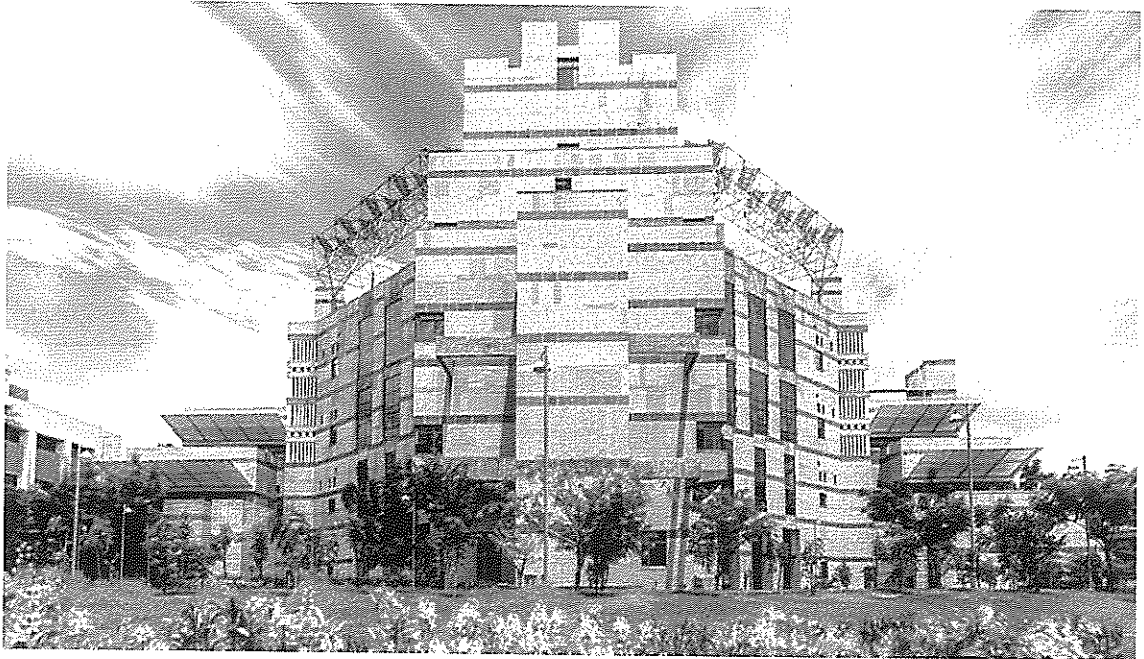
## E-TENDER NOTICE

### Tender Document

For

**"inStem- AMC for carrying out minor and repair civil Engineering works at the campus -2026-27"**

inStem/Maint(Civil)/15011/1/NIeT- 94/2026-27. dated 05.06.2026



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**“inStem- AMC for carrying out minor and repair civil Engineering works at the campus -2026-27”**

**NIE-T No: - inStem/Maint(Civil)/15011/1/NIE-T- 94/2026-27. dated 05.06.2026**

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मूल कोशिका विज्ञान एवं पुनर्योजी औषधि संस्थान (ब्रिक-इनस्टेम)

ब्रिक, जैव प्रौद्योगिकी विभाग, विज्ञान एवं प्रौद्योगिकी मंत्रालय, भारत सरकार के अधीन एक स्वायत्त अनुसंधान संस्थान

Institute for Stem Cell Science and Regenerative Medicine (BRIC- inStem)

An Autonomous RI of BRIC, Department of Biotechnology, Ministry of Science & Technology, Govt. of India



### SECTION-1: NOTICE INVITING E-TENDER

**TENDER NOTICE NO.: inStem/Maint(Civil)/15011/1/NIEt- 94/2026-27. dated 05.06.2026**

E- tenders in *single stage- two-cover system (Technical & Price bid)* is invited on behalf of The Director, BRIC - inStem from the eligible contractors who have executed similar nature and magnitude of works, in respect of the work as detailed below up to 11:00 Hours on 19.06.2026

#### A. Details of Tender:

- Website Url:** <https://dbt.euniwizarde.in> Bidders are advised to follow the instructions provided in the "Instructions to the participating bidders" in Section No. C of this NIEt.
- Name of the work:** "inStem- AMC for carrying out minor and repair civil Engineering works at the campus -2026-27"

#### 3. Brief details of Tender:

1.	Earnest Money Deposit	Rs.6000.00 (Six Thousand rupees only). <i>To be paid through E-payment/NEFT in E-wizard portal or any other instrument indicated in the part-D of this NIT.</i>
2.	Completion period	01 Year
3.	Tender fee	NIL
4.	Tender processing fee	As per the charges mentioned on the e-tender portal
5.	E-tender uploading date and time	05/06/2026 @ 15:00Hrs
6.	Date of Pre - Bid Meeting	12/06/2026 @ 11:00Hrs
7.	Date & Time of tender closing	19/06/2026 @ 11:00hrs
8.	Date of opening of Technical cover	19/06/2026 @ 15:30 hrs onwards
9.	Opening of the Price bid cover	Will be communicated separately to qualified bidder.

- The site of the work is located at inStem, GKVK Campus, Bellary road, Bengaluru, Karnataka.

*R. P. Sh*  
Incharge – Senior Engineer  
BRIC-inStem

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**B. Eligibility, Evaluation and Award Criteria:**

The Bidder shall meet the following eligibility criteria and submit the relevant documentary evidence. The bid received without documentary evidence shall summarily be rejected.

- i) Bidders should submit Copies of valid registration details under the civil engineering works category with Government organizations / Semi-Government organizations of State or Central Government or Public sector undertakings or Autonomous bodies of State or Central Government.
- ii) Turnover: Average annual financial turnover should be at least 30% of the estimated cost put to tender during the immediate last three consecutive financial years. The value of annual turnover figures shall be brought to current value by enhancing the actual turnover figures at a simple rate of 7% per annum.
- iii) Profit/loss: The bidders should not have incurred any loss (profit after tax should be positive) in more than two years during available last five consecutive balance sheets (balance sheet in case of private/public limited company means its standalone
- iv) e financial statement and consolidated financial statement both), duly audited and certified by the Chartered Accountant.
- v) Similar magnitude of work experience: The Bidders should have satisfactorily completed in the last seven years in his own/firm name at least one similar nature of work cost not less than **Rs. 20.00lacs** or two similar works of each cost not less than **Rs. 15.00 lacs** or three similar works costing not less than **10.00 lacs**.
- vi) Similar nature of work means: The bidder should have satisfactorily carried out building Civil Engineering and public health engineering works (minor & repair works nature) for Premier Research Institutes/ Universities/ Public Sector Undertakings (PSUs) institutes/ Multinational Companies (MNCs) etc.
- vii) The Bidders should submit copies of Department of Labor Registration certificates issued by the appropriate authority.
- viii) Certificate of Registration for Goods Services Tax (GST).
- ix) Banker's Certificate from a Commercial Bank or Net worth Certificate: Banker's Certificate of the amount equal to **Rs. 10.00 lacs**, or Net worth certificate of minimum **Rs. 2.50 lacs** issued by certified Chartered Accountant with UDIN.
- x) Affidavit in the following format on the bidder's company letterhead shall have to be uploaded in the technical cover:

"I/We undertake and confirm that eligible similar works(s) has/have not been got executed through another contractor on a back-to-back basis. Further, if such a violation

comes to the notice of the institute, then I/we shall be debarred for bidding in institute works in future forever. Also, if such a violation comes to the notice of the institute before the date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee”.

(Note: Work executed as a sub-contract or joint venture will not be considered for eligibility/ evaluation.)

The Bidder should submit the details of such completed works, in support of having completed these works, the Bidder should submit copies of the completion certificates from the owner companies indicating the name of the work, the description of work done by the Bidder, the value of contract executed by the bidder, date of start, date of completion (contractual and actual), value of the material supplied by the client. **If required, the evaluation of technical offers opened will be done with an inspection of works executed by the bidders by the inStem committee.**

**Evaluation and award of work:** The technical offer of all the participants will be evaluated initially and the price offer of those participants who secure minimum marks and get technically qualified (ref. annexure-1 for eligibility scoring matrix), will be considered for further evaluation. As the offer will have to be submitted in two parts (Part A & Part B) the following equation is adopted to arrive at the lowest offer.

The lowest offers (in percentage) arrived based on the average percentage (WAP) of the two parts. For this purpose, Part-A will carry 70%(Wa) and Part-B will carry 30%(Wb) weightage.

The governing equation will be:

1.  $Xa = \text{Percentage over and above CPWD-DSR-2023 including GST difference } 6\%$
2.  $Xb = ((\text{Tendered amount} - \text{Estimate amount}) / \text{Estimate amount}) * 100$
3.  $WAP = \sum_a^b Xa.Wa + Xb.Wb$

Finally, the work will be awarded to the bidder whose offer was found to be the lowest and responsive bid.

  
**Incharge – Senior Engineer**  
**BRIC-inStem**

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### **C. INSTRUCTIONS TO THE PARTICIPATING BIDDERS**

The intending bidders must read the terms and conditions of this NIT carefully. Bidder should only submit the bid if considers himself/herself eligible and is in possession of all the documents required.

**The bid should be submitted through e-Wizard portal (<https://dbt.euniwizarde.in/>) only and in the standard formats uploaded in the portal. Any other form of submission and change in the departmental formats will not be acceptable and summarily rejected.**

Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids. A bidder shall be deemed to have full knowledge of the system whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. Submission of a bid by a bidder implies that he/she has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and local conditions and other factors having a bearing on the execution of the contract.

The bidders are required to submit soft copies of their bid electronically on the e-Wizard Portal using valid Digital Signature Certificates. Below mentioned instructions are meant to guide the bidders for registration on the e-Wizard Portal, prepare their bids in accordance with the requirements and submit their bids online on the e-Wizard Portal. For more information, bidders may visit the Portal (<https://dbt.euniwizarde.in/>)

#### **1. REGISTRATION PROCESS ON ONLINE PORTAL**

- a) Bidders to enroll on the e-Procurement module of the portal <https://dbt.euniwizarde.in> by clicking on the link "Bidder Enrolment".
- b) The bidders to choose a unique username and assign a password for their accounts. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. This would be used for any communication from the e-Wizard Portal.
- c) Bidders to register upon enrolment, with their valid Digital Signature Certificate (Class III Certificates with signing and Encryption key) issued by any Certifying Authority recognized by CCA India with their profile.
- d) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse.
- e) Bidder then logs in to the site through the secured log-in by entering their user ID/password and the password of the DSC / e-Token.

- f) After registration send mail to Helpdesk: helpdeskeuniwizarde@gmail.com for Account activation.
- g) As per portal norms Registration Fee will be applicable.

## **2. TENDER DOCUMENTS SEARCH**

- a) Various built-in options are available in the e-Wizard Portal like Department name, Tender category, estimated value, Date, other keywords, etc. to search for a tender published on the Online Portal.
- b) Once the bidders have selected the tenders they are interested in, they may download the required documents/tender schedules. These tenders can be moved to the respective 'Interested tenders' folder.
- c) The bidder should make a note of the unique Tender No assigned to each tender; in case they want to obtain any clarification/help from the Helpdesk.

## **3. BID PREPARATION**

- a) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- b) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid.
- c) Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that needs to be submitted. Any deviations from these may lead to rejection of the bid.
- d) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document/schedule and generally, they can be in PDF/XLSX/PNG, etc. formats.

## **4. BID SUBMISSION**

- a) Bidder to log into the site well in advance for bid submission so that he/she uploads the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- b) The bidder to digitally sign and upload the required bid documents one by one as indicated in

the tender document.

- c) Bidders to note that they should necessarily submit their financial bids in the prescribed format given by department and no other format is acceptable.
- d) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, the opening of bids, etc. The bidders should follow this time during bid submission.
- e) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data, which cannot be viewed by unauthorized persons until the time of bid opening.
- f) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- g) Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- h) The off-line tender shall not be accepted and no request in this regard will be entertained whatsoever.
- i) As per portal norms Tender Processing Fee will be applicable.

##### **5. AMENDMENT OF BID DOCUMENT**

At any time prior to the deadline for submission of proposals, the department reserve the right to add/modify/delete any portion of this document by the issuance of a Corrigendum, which would be published on the website and will also be made available to the all the Bidder who has been issued the tender document. The Corrigendum shall be binding on all bidders and will form part of the bid documents.

##### **6. ASSISTANCE TO BIDDERS**


- a) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
- b) Any queries relating to the process of online bid submission or queries relating to e- Wizard Portal, in general, may be directed to the e-Wizard Helpdesk. The contact number for the helpdesk is 8448288994/86/87/89/88/81/90/92/82 011-49606060, 07903269552, 9355030608, 9055030613, 7903810198, 9355030606, 9315620706, 9355030623, 9355030628,8800526452,9205898228,9122643040,9355030604,eprochelpdesk.01@gmail.com, eprochelpdesk.44@gmail.com , eprochelpdesk.06@gmail.com
- c) The tender inviting authority has the right to cancel this e-tender or extend the due date of receipt of the bid(s).

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d) All payments should be done through e-Wizard Payment gateway.

7. **Bid Validity:** The offer submitted shall be valid for minimum 75 days from the date of the submission of the tender.

For site visit and for any queries please contact Senior Technical Officer-inStem, Civil Engineering office, GKVK campus, Bellary Road, Bengaluru-560065.Ph:080-6194-8166/8167  
Email : [krakshith@instem.res.in](mailto:krakshith@instem.res.in) , [raiesh@instem.res.in](mailto:raiesh@instem.res.in)



**Incharge – Senior Engineer**

**BRIC-inStem**

#### **D. INFORMATION TO THE PARTICIPATING BIDDERS**

1. **Security Deposit:** 2.5% of the total value of the work done will be withheld as a security deposit. The recovery on this account will be made from each running bill / Job order bill and final bill. The security deposit recovered will be released after the successful completion of the 06months from the date of the expiry of the AMC.
2. **Performance Guarantee:** The successful Bidder has to submit the performance guarantee for an amount of 3% of his / their tendered amount in the standard form prescribed in the tender document. This performance guarantee will be returned to the contractor after the due date from the satisfactory completion of the work, providing the work has been carried out in accordance with the agreement provision and the same is not forfeited for any reason.

**Note: In the case of PG amount is less than or equal to Rs.50,000/-, it has to be submitted in the form of FD/DD/TDR/Banker's cheque and PBG form is not acceptable.**

**In the case where PBG amount is more than Rs.50,000/- along with the above instrument, PBG form will also be accepted. In the case of PBG submission, it shall be in the format annexed along with this tender document. Further, the successful bidder shall have to ensure that PBG issuing bank sent an SFMS to the inStem institute bank and details of the SFMS sent should be recorded on the BG. The details of the inStem bank may be obtained with the office of civil engineering on receipt of the LOA.**

3. **Defects Liability Period:** Twelve (12) months from the date of completion of each job/work.
4. The Director, inStem does not bind herself/himself to accept the lowest or any other tender and reserves the authority to reject any or all tenders without assigning any reason. All the tenders, in which any of the prescribed conditions are not fulfilled or incomplete, in any respect, are liable to be rejected.
5. This Notice Inviting Tender (N.I.eT) along with its annexures such as information and instructions to the participating bidders shall form the part of the agreement.
6. The Director, inStem reserves the right to postpone the tender issue date, submission /opening date and to accept or reject all your tenders without assigning any reason.
7. The successful Bidder on the acceptance of his tender by the inStem shall within Ten (10) days from the stipulated date of start of the work, shall sign the formal contract.
8. The Bidder should ensure that rates quoted should appear only in the price schedule document and nowhere else, otherwise, the tender is liable to be rejected.
9. The Director, inStem reserves the right of accepting the whole or part of any tender and Bidder shall be bound to perform the same at the rate or amount quoted.

10. The successful Bidder shall be required to execute an agreement with the inStem for carrying out the work as per the agreed conditions. The cost of stamp paper for the agreement shall be borne by the contractor as per the State Stamp Act
11. The General conditions of the contract of CPWD - GCC 2023 (maintenance works) with all the latest amendments and schedules annexed with this tender shall be applicable and form part of this work agreement. The annexed schedule shall be read as part of the CPWD-GCC-2023 (maintenance works). The CPWD-GCC can be found and available for download in the link below [https://cpwd.gov.in/Publication/GCC CON Misc 29 Maintenance Works 2023.pdf](https://cpwd.gov.in/Publication/GCC_CON_Misc_29_Maintenance_Works_2023.pdf)
12. The rates shall be quoted inclusive of all taxes, worker welfare cess, levies etc. except GST, which shall be indicated separately at the end of the offer and as such nothing extra shall be payable.
13. Applicable deductions towards Income tax, workers' welfare cess shall be deducted as per rules in force in each bill.
14. **Earnest Money deposit**

It may be noted that, on confirmation of availability of the EMD in the technical bid stage as per prescribed form, shall only be considered for opening of the bid further and all others without EMD will be rejected.

16.1. Mode of Deposit Earnest Money:

The Earnest Money is accepted only in the following forms:

- I. Banker's Cheque of a Commercial Bank
- II. Account Payee Demand Draft of a Commercial Bank
- III. Fixed Deposit Receipt (FDR) of a Commercial Bank
- IV. Insurance Surety Bonds
- V. Bank Guarantee from a Commercial Bank.
- VI. E-payment at E-wizard portal

**Note:- In the case of EMD in the form of (I) to (V), the original instrument of the EMD shall be submitted to the office of Civil engineering, inStem on or before the due date and time of opening the tender. If valid EMD not received on or before the opening of tender, the tender will be summarily rejected.**

- 16.1.1. The FDR is pledged in favour of The Director, inStem, Bengaluru. It is in the tenderer's own interest to keep the FDR valid as long as it is required.
- 16.1.2. If the banks are closed on the last date of submission of tenders, the date is postponed suitably.
- 16.1.3. The MSME firms registered in NSIC under PP policy are exempted from payment of

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EMD for supply of goods and services only. Bidder should submit valid MSME UDYOG AADHAR MEMRANDOM.

16.1.4. The Bank Guarantee including e- Bank Guarantee submitted as a part of Earnest Money is valid for a period of 90 days for single bid works and 180 days for two bid systems or more from the date of submission of the tender.

16.2. Refund of Earnest Money:

The earnest money of all the tenderers except the lowest tenderer is refunded immediately in the same form as bidders submitted:

- (a) after the expiry of stipulated bid validity period or
- (b) immediately after acceptance of the successful bidder, whichever is earlier.

16.3. Forfeiture of Earnest Money:

- A. If any tenderer withdraws his tender or makes any modification in the terms & conditions of the tender which is not acceptable to the institute within 7 days after last date of submission of bids, then the institute shall without prejudice to any other right or remedy, be at liberty to forfeit 50% of earnest money irrespective of letter of acceptance for the work is issued or not.
- B. If any tenderer withdraws his tender or makes any modification in the terms & conditions of the tender which is not acceptable to the institute after expiry of 7 days after last date of submission of bids, then the institute shall without prejudice to any other right or remedy, be at liberty to forfeit 100% of the earnest money absolutely irrespective of letter of acceptance for the work is issued or not.
- C. If a contractor fails to furnish the prescribed performance guarantee within the prescribed period, the earnest money is absolutely forfeited to the institute automatically without any notice.
- D. In case of forfeiture of earnest money as prescribed in Para (1) and (2) above, the bidder shall not be allowed to participate in the re-tendering process of the work.

*R. D. Singh*

**Incharge – Senior Engineer**

**BRIC -inStem**

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## METHOD OF PERFORMANCE EVALUATION OF THE BIDDERS

**Name of work: inStem- AMC for carrying out minor and repair civil Engineering works at the campus -2026-27.”**

**NIEt No: - inStem/Maint(Civil)/15011/1/NIEt- 94/2026-27. dated 05.06.2026**

Attributes		Evaluation	
(i)	<b>Financial Strength</b>	<b>(20 Marks)</b>	(i) 60% marks for minimum eligibility criteria
	(a) Average annual turnover (last 3 years)	16 Marks	(ii) 100% marks for twice the minimum eligibility criteria or more In between (i) & II) - on pro -rata basis
	(b) Bankers Certificate/Net-worth certificate	4 Marks	
(ii)	<b>Experience in similar class of works</b>	<b>(20 Marks)</b>	(i) 60% marks for minimum eligibility criteria
			(ii) 100% marks for twice the minimum eligibility criteria or more
			In between (i) & II) - on pro -rata basis
(iii)	<b>Performance on works</b>		
	<b>Time overrun</b>	<b>(20 marks)</b>	
	Parameter calculation for points		
		If TOR =	1.00 2.00 3.00 >3.50
	(i) Without levy of compensation		20 15 10 10
	(ii) With levy of compensation		20 5 0 -5
	(iii) Levy of compensation not decided		20 10 0 0
(iv)	<b>Performance of works (Quality)</b>	<b>(40 Marks)</b>	
	(i) Outstanding		40
	(II) Very good		30
	(III) Good		20
	(iv) Poor		0

**Note :- 1. Minimum Of 50% of marks in each attribute and aggregate marks of minimum 60% is required for qualification.**

*R. R. B. h*  
Incharge - Senior Engineer  
BRIC-inStem

## **E. SPECIFIC INSTRUCTIONS TO THE BIDDERS**

The interested bidders are required to consider the following specific instructions and assess their interest and commitment before participating in the tender. The participating bidder is expected to offer in consideration of the following aspects.

### **About the work:**

Institute for Stem Cell Science & Regenerative Medicine, widely known as 'inStem' an autonomous institute of the Department of Bio-technology located at Bangalore Life Science Cluster, GKVK Post, Bellary Road, Bangalore 560065, Karnataka state

The campus is situated on 15 acres of land and holds several physical infrastructures ranging from academic buildings to residential to service buildings, Low-rise to High-rise buildings. The campus demands several minor repairs works across the year to support the functional activities. However, such work demands are not constant and hence this contract will be subject to the need for such work by the campus as and when during the contract period. *The bidders shall note that the institute is not bound to offer or limit itself to the indicated quantity in Part B of the BOQ during the contract period. The bidder shall not have any claim towards the quantity fulfilment during the contract period.*

*Further, Bidders shall also note that the Director, BRIC-inStem reserves the right to engage different agencies for similar works in full or part of the works not listed in Part-A & Part-B, in the case it intends without assigning any reasons to the contractor under this contract. The contractor shall not have any claims in this regard.*

### **Methods of Work Execution**

After the award of the work and during the contract period if any work originates on the campus, the Engineer-in-Charge will assess the suitability of the work in respect of this contract considering the nature of the works, scheduled for completion, reasonability and contractor commitment to meet the schedule for specific works and accordingly Engineer-in-Charge will invite the successful contractor to execute the particular work by issuing job order. Each Job order will be part of this contract and follow the terms and conditions of this contract.

### **Job order**

The job order for PART-A will be accompanied by the schedule of quantities. In the case of specific job order has all the items under CPWD-DSR-2023, The schedule of quantities of the job order will be based

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on the CPWD-DSR-2023 item rate and the plus (+) or minus ( - ) Percentage quoted by the successful bidder added at the end.

In the case of a job order having the items composing both Part-A and Part-B schedule items, the schedule of quantities will be based grouped as Part-A and Part-B separately. For part B the final amount will be based on the CPWD-DSR-2023 item rate and the plus (+) or minus (-) Percentage quoted by the successful bidder added at the end. For Part B, as per the rate quoted by the successful bidder. Combining both the group, schedule of quantities will be prepared and issued for the execution of respective jobs.

In the case of specific job order that has all the items part-B, The schedule of quantities of the job order will be based on the rate quoted by the successful bidder for respective items is considered.

*Further, the maximum threshold for each job order will be restricted to Rs.3,50,000/-. Thus, for any work whose estimated value crosses the maximum threshold, such work will be tendered separately and executed through different contractors.*

#### **Materials of construction**

The materials used for the work shall conform to the standard specification offered in this tender and the successful bidder is expected to adhere to the material specification and makes indicated in the tender document for every activity without fail. In this regard, it is informed to review the list of approved makes given along with this tender document and quote accordingly. For any of the materials, if no standard specifications are available, then the decision of the Engineer-in-Charge is final and binding on selecting the materials.

#### **Time and schedule for completion**

This work inherits the nature of a time-bound project and it is expected that the successful bidder to execute the work within a given time. Each job order will have its period of completing the work and the successful contractor shall adhere to the period indicated in the particular job order.

#### **Co-ordination:**

Some of the works may involve multiple stakeholders from different engineering works. The Civil engineering works being the dominant portion and base, it is expected that the successful bidder will co-ordinate the related activities across the discipline or work activities. In the case of any concerns concerning other engineering works or such works hindering progress, the successful bidder will have to inform the Engineer-in-Charge in advance. The work shall have to progress concerning the connected activities from the

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other engineering works. The successful bidder will bear the failure to coordinate and the resultant impact due to such failure on the work.

**Institute security policy**

The Successful bidders are expected to adhere to the institute security policy without fail such as materials and personnel movement, gate passes, workers' behaviour, permissions for working beyond the normal working hours etc. including the policy revision as and when updated. There shall not be any delays or absence of work due to this.



**Incharge – Senior Engineer**

**BRIC-inStem**

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## SECTION – 02 - Proforma of Schedules

SCHEDULE 'A'			
SN	TITLE	PARTICULARS	PAGE
1	Notice Inviting Tender (NIE-T) No.	NIE-T No. :- inStem/Maint(Civil)/15011/1/NIE-T-94/2026-27. dated 05.06.2026	
	Notice Inviting Tender details	i) NIE-T as published in Web site	
		ii) NIE-T as Logged on to Web Site	
4	Scope and location of the work:	Enclosed	
5	List of drawings	Enclosed	
6	Time Schedule for the work:	Enclosed	
7	List of changes if any in specifications:		
	a) Civil work -	Changes indicated	
8	Schedule of Quantities (Enclosed) -	As per Volume-2	

SCHEDULE 'B'				
Schedule of materials to be issued to the contractor				
Sl. No	Description of item	Quantity	Rates at which the Materials will be charged to the contractor	Place of issue
1	2	3	4	5
1.	Cement in bags		Contractor's own supply	
2.	Re-Bars for RCC		Contractor's own supply	
3.	Water for const. purpose		Ref.as per clause 35 of SCC	
4.	Electricity for const. purpose		Ref.as per clause 35 of SCC	
5.				
6.				

SCHEDULE 'C'			
Land earmarked for temp. infrastructures and Tools & plants to be hired to the contractor			
Sl.No	Description	Hire charges	Place of issue
1	2	3	4
1.	Area for storage / site office (SCC-8)	As per Clause SCC-8	Site premises
2.	Temporary Buildings (SCC-8)	As per Clause SCC-8	Site premises
3.	Labour hutments (SCC- 8)	No labour hutment permitted at site	
4.			

SCHEDULE 'D'	
Extra schedule for specific requirements/documents for the work, if any Particularly for Security guidelines, Gate passes, lift, tower cranes etc.	
1. Specific instructions to the bidders	
2. Special Conditions of Contract	
3. Particular specifications	
4. Annexures (form of PG/SD/Guarantee for water proofing)	

SCHEDULE 'E'	
Schedule of component of Cement, Steel, other Materials, Labour, POL etc. for price escalation.	NIL

SCHEDULE 'F'		
Reference to CPWD - General Conditions of contract – 2020 for Maintenance works		
Name of Work: - inStem – Annual rate contract for carrying out minor and repair civil engineering works at the campus during the year 2024-25		As per NIT
Estimated cost of work:	Rs.	As per NIT
i) Earnest money	Rs.	As per NIT
ii) Performance Guarantee	3% of tendered value	As per Tender
iii) Security Deposit	2.5% of tendered value	As per Tender

General Rules & Directions:	
Tender inviting authority	In charge – Senior Engineer on behalf of The Director/inStem
Maximum percentage for quantity of Items of work to be executed beyond which rates are to be determined in accordance with Clauses 12.2 & 12.3.	See clause 12 below

Definitions:		
2(v)	Engineer-in-charge	General definition
2(viii)	Accepting Authority	Incharge Senior Engineer on behalf of The Director/BRIC-inStem
2(x)	Percentage on cost of materials and labour to cover all overheads & profits	15% (Fifteen percent)
2(xii)	Department	General definition
9(ii)	Standard Contract Form GCC for Item rate tender as modified & corrected up to date	CPWD- GCC-2023 for construction works

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<b>Clause -1</b>	
i) Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance.	10 days
ii) Maximum allowable extension with late fee @ 0.1% per day of Performance Guarantee amount beyond the period provided in (i) above.	10 days

<b>Clause -2</b>	
Authority for fixing compensation under clause 2.	The Director / BRIC-inStem

<b>Clause -5</b>	
Number of days from the date of issue of letter of acceptance for reckoning date of start.	
Mile stone(s) as per table given below:	

TIME ALLOWED FOR EXECUTION OF WORK	12 Months
------------------------------------	-----------

Clause-5.4: Schedule of rate of recovery for delay in submission of the modified programme in terms of delay days

Sl.No.	Contract Value	Recovery Rs. /day
1	Less than or Equal to Rs.1.0Crore	500
2	More than Rs. 1 Crore but less than or equal to Rs. 5 Crore	1000
3	More than Rs. 5 Crore but less than or equal to Rs. 20 Crores	2500
4	More than Rs. 20 Crores	5000

Clause applicable – (6 or 6A)	Clause 6 for Manual Billing / Clause 6A for Computerized Billing	6A-computerized billing
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<b>Clause -7</b>	
Gross work to be done together with net payment/ adjustment of advances for material collected, since the last such payment or being eligible to if any	AS per Clause- 21 of SCC – Interim payment

<b>Clause - 10A</b>		<i>.NIL</i>
List of testing equipment's to be provided by the contractor at site lab.		
1	2	3
4	5	6

<b>Clause - 10B(ii)</b>	(Mobilisation Advance)
Whether Clause 10 B (ii) shall be applicable (If yes, Clause of Tender Condition to be followed)	<i>NOT APPLICABLE</i>

<b>Clause - 10C</b>	
Component of labour expressed as percent of value of the work	<i>NOT APPLICABLE</i>

<b>Clause - 10CA</b>		<i>NOT APPLICABLE</i>	
S. No	Materials Covered under this Clause	Nearest Material for which All India Wholesale Price Index is to be followed	Basic Rate
1	Cement	<i>Cement</i>	<i>Rs / bag</i>
2	Steel reinforcement bars	<i>Steel (Bars &amp; Rods)</i>	<i>Rs / MT</i>
3	<i>Other materials</i>		<i>Rs. ....</i>

Note: Base price for materials given above are only for regulating operation of clause 10-CA. The tenderers are requested to consider prevailing market rates while quoting the rates.

<b>Clause - 10CC</b>	<i>NOT APPLICABLE</i>
Clause 10 CC to be applicable in contracts with stipulated period of completion exceeding the period shown in next column.	<i>NOT APPLICABLE</i>

<b>Clause - 11</b>	
Specifications to be followed for execution of this work	<p>Civil work:</p> <p>1. CPWD Specifications 2019 volume- I&amp;II with corrections slips up to the last date of submission/uploading of tender .</p> <p>2.Particular specifications attached (ref. section-06)</p>

Clause - 12		
12.2 & 12.3	Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for building work	100%
12.5	Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for foundation work	100%
12.5	Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for maintenance work	NOT APPLICABLE

Note: The rates so determined under clause 12 by the Engineer in Charge shall be final and binding on the contractor and shall not be arbitrable.

Clause - 16	
Competent Authority for deciding reduced rates.	<i>The Director / inStem</i>

Clause - 18		
<i>As necessitated for the work.</i>		
List of mandatory machinery, tools & plants to be deployed by the contractor at site:		
1	2	3
4	5	6

Clause - 36(i)		Requirement of Technical Representative(s) and recovery Rate				
Sl. No.	Minimum Qualification of Technical Representative	Discipline	Designation (Principal Technical / Technical representative)	Min. Exp. In yrs.	No.	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 36(i). (Rupees in figures & words)
1	Graduate / Diploma engineer	Civil Engineering	<i>Project Engineer</i>	5		<i>Rs. 15,000.00</i>

Assistant Engineers / Scientific Officer- "C", retired from Govt. services that are holding Diploma, will be treated at par with Graduate Engineers.

Clause - 42		
(i)	(a) Schedule / statement for determining theoretical quantity of cement on the basis of :	<i>As per Civil Work Specifications of the Department</i>
(ii)	Variations permissible on theoretical quantities.	
a	Cement	
	i) for works with estimated cost put to tender not more than <i>Rs.5 Lakhs</i>	<i>5% plus / minus</i>
	ii) for works with estimated cost put to tender more than <i>Rs.5 lakhs</i>	<i>3% plus / minus</i>

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b	Bitumen for All works	2.5% plus only & nil on minus side
c	Steel reinforcement and structural steel sections	(+) 5% for wastage, over and above (+) 5%/ (-) 4% being variation in wastage.
d	All other materials.	Nil

RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION			
S. No.	Description of Item	Rates in figures & words at which recovery shall be made from the Contractor	
		Excess beyond permissible variation	Less use beyond the permissible variation
1	Cement	NIL	10% extra rate over the basic rate of respective material as specified in the above Clause 10CA.
2	Steel reinforcement		
3	Structural Sections		
4			

**Clause-41 :**

The security deposit of the work shall be refunded if no labour complaint has been received from the labour officer till the due date of its payment as per clause 17 of applicable GCC. If a labour complaint is received during this period, the Engineer-in-charge shall, after issue of notice in this regard to the contractor, deduct the amount required to settle the complaint from his security deposit and refund the balance amount.

*R. P. Singh*  
**Incharge - Senior Engineer  
 BRIC-inStem**

*o/c*  
*R*

## Section 03

**FORM A-H**

Institute for Stem Cell Science and Regenerative Medicine (BRIC- inStem) An Autonomous RI of BRIC, Department of Biotechnology, Ministry of Science & Technology, Govt. of India GKVK campus, Bellary Road, Bengaluru, 560065. India					
Form "A" & "B" Financial Information & Bank Solvency					
NIE-T No: - inStem/Maint(Civil)/15011/1/NIE-T- 94/2026-27. dated 05.06.2026					
NAME OF WORK: -		inStem- AMC for carrying out minor and repair civil Engineering works at the campus -2026-27			
S. NO	PARTICULARS				REMARKS
I	Name of the Agency				
	BELOW GIVEN DOCUMENTS TO BE ATTACHED WITH PROOFS				COPY ATTACHED "YES" OR "NO"
1	Financial Turn Over Certified by CA	Gross turn over in Lakhs	Profit/Loss in lakhs	Certified by Chartered Accountant	
	2017-2018				
	2018-2019				
	2019-2020				
	2020-2021				
	2021-2022				
2	Latest Bankers certificate or Net worth certificate				
3	Financial Arrangements for carrying out the proposed work				

NOTE: THE AGENCY MUST FILL UP ALL THE SHEETS VIZ. TECHNICAL DATA SHEET, FORM A AND B, FORM C, FORM D, FORM E , FORM F , FORM G, FORM H

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Institute for Stem Cell Science and Regenerative Medicine (BRIC- inStem)  
An Autonomous RI of BRIC, Department of Biotechnology, Ministry of Science & Technology, Govt. of India  
GKVK campus , Bellary Road, Bengaluru, 560065. India

**FORM C : Details of all works of any nature under execution or awarded(No work shall be left out).**

NleT No: - inStem/Maint(Civil)/15011/1/NleT- 94/2026-27, dated 05.06.2026

Name of work:- inStem- AMC for carrying out minor and repair civil Engineering works at the campus -2026-27

S. NO	Name of the work/ Project and location	Cost of work Rupees (in lakhs)	Date of commencement as per contract	Stipulated date of Completion	Upto date percentage progress of the work	Slow progress, if any and reasons thereof.	Name & addresses/ Phone Nos of the officers to whom reference can be made.	REMARKS	
1	2	3	4	5	6	7	8	9	10
<b>Name of the Agency:-</b>									
1									
2									
3									
4									
5									

**Note:**

- i. The agency may submit separate form for giving details of each project (in progress/awarded) and fill up the details as above. Separate sheets if any shall be numbered in sequence.
- ii. The hard copies of the work orders for each work be attached in technical bid. BOQ shall be furnished at a later date on request.
- iii. Certified that the above list of works is complete and no work has been left-out and the information given is correct to my knowledge and belief
- iv. The hard copy all works of any nature in hand and awarded shall also be submitted on or before due date. No works shall be left out.

NOTE: THE AGENCY MUST FILL UP ALL THE SHEETS VIZ. TECHNICAL DATA SHEET, FORM A AND B, FORM C, FORM D, FORM E , FORM F , FORM G, FORM

**Institute for Stem Cell Science and Regenerative Medicine (BRIC- inStem)**  
**An Autonomous RI of BRIC, Department of Biotechnology, Ministry of Science & Technology, Govt. of India**  
**GKVK campus , Bellary Road, Bengaluru, 560065.**

**FORM D : Details of all similar works completed in all respect during the last seven years ending previous day of last date of submission of tenders.(Starting with latest work)**

**NleT no. :- inStem/Maint(Civil)/15011/1/NleT- 94/2026-27. dated 05.06.2026**

**Name of the Work :- inStem- AMC for carrying out minor and repair civil Engineering works at the campus -2026-27**

S. NO	Name of the work/ Project and location	Owner or sponsoring organisation	Cost of work Rupees (in lakhs)	Date of commencement as per contract	Stipulated date of Completion	Actual date of completion	Litigation/ arbitration pending/ in progress (with details)	Name & addresses/ Phone Nos of the officers to whom reference can be made.	REMARKS
1	2	3	4	5	6	7	8	9	10
Name of the Agency:-									
1									
2									
3									
4									

\* Indicate gross amount claimed and amount awarded by the Arbitrator if any.

Notes:-

- i) The agency may submit separate form for giving details of work (completed) for each year to fill up the details as above. Separate sheets if any shall be numbered in sequence.
- ii) The copies of the work orders for each work be attached in technical bid . BOQ shall be furnished at a later date on request.
- iii) Certified that the above list of works is complete and no work has been left-out and the information given is correct to my knowledge and belief.
- iv) The hard copy all similar works completed during last seven years ending previous day of last date of submission of tenders. shall also be submitted on or

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before due date.

<p style="text-align: center;">Institute for Stem Cell Science and Regenerative Medicine (BRIC- inStem)                  An Autonomous RI of BRIC, Department of Biotechnology, Ministry of Science &amp; Technology, Govt. of India                  GKVK campus , Bellary Road, Bengaluru, 560065.</p>																			
<p><b>FORM E : Performance Reports of Works (Separate certificates for each work)</b></p>																			
<p>NieT No: - inStem/Maint(Civil)/15011/1/NieT- 94/2026-27. dated 05.06.2026</p>																			
<p><b>Name of the Work :- "inStem- AMC for carrying out minor and repair civil Engineering works at the campus -2026-27"</b></p>																			
<p><b>Name of the Agency :-</b></p>																			
Name of the Work/ Project &	Agreement No.	Estimated Cost	Tendered Cost	Date of start	Date of completion			Amount of compensation levied for delayed completion, if any.	Amount of rated item, if any.	Performance report						REMARKS			
					(i) Stipulated date of Completion	(ii) Actual Date of Completion	(iii) Present position of the work, if in			(1) Quality of work	(2) Financial soundness	(3) Technical proficiency	(4) Resourcefulness	(5) General behaviour	(6) Time consciousness				
1																			
2																			
3																			
4																			
5																			
6																			
7																			

NOTE: THE AGENCY MUST FILL UP ALL THE SHEETS VIZ: TECHNICAL DATA SHEET, FORM A AND B, FORM C, FORM D, FORM E , FORM F , FORM G, FORM

<p style="text-align: center;">Institute for Stem Cell Science and Regenerative Medicine (BRIC- inStem)                  An Autonomous RI of BRIC, Department of Biotechnology, Ministry of Science &amp; Technology, Govt. of India                  GKVK campus , Bellary Road, Bengaluru, 560065.</p>			
<p style="text-align: center;">NIEt No: - inStem/Maint(Civil)/15011/1/NIEt- 94/2026-27. dated 05.06.2026</p>			
<p style="text-align: center;"><b>“inStem- AMC for carrying out minor and repair civil Engineering works at the campus -2026-27”</b></p>			
<p><b>FORM F: STRUCTURE AND ORGANISATION</b></p>			
1	Name & Postal Address of the applicant:		
2	Telephone No./Telex No./Fax No.		
3	Legal status of the applicant (Please tick and attach attested copies of original document defining the legal status)		
	(a) An individual; (b) A proprietary firm; (c) A firm in partnership (d) A limited company or Corporation		
4	Particulars of registration with various Government bodies (scanned & uploaded photocopy)	Sl.No.	Dept/Organization & Place of registration  Registration No.
5	Names and Titles of Director & Officers with designation proposed to be concerned with this work		
6	Designation of individuals authorized to act for the organization		

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7	Was the agency ever required to suspend construction for a period of more than six months continuously after you commenced the construction? If so, give the name of the project and reasons of suspension of work.	
8	Has the agency or any constituent partner in case of partnership firm, ever abandoned the awarded work before its completion? If so, give name of the project and reasons for abandonment.	
9	Has the agency, or any constituent partner in case of partnership firm, ever been debarred / black listed for tendering in any organization at any time? If so give details.	
10	Has the agency, or any constituent partner in case of partnership firm, ever been convicted by a court of law? If so, give details.	
11	In which fields of Engineering construction the applicant has specialization and interest?	
12	Any other information considered necessary but not included above.	

NOTE: THE AGENCY MUST FILL UP ALL THE SHEETS VIZ. TECHNICAL DATA SHEET, FORM A AND B, FORM C, FORM D, FORM E, FORM F, FORM G, FORM H

Institute for Stem Cell Science and Regenerative Medicine (BRIC- inStem) An Autonomous RJ of BRIC, Department of Biotechnology, Ministry of Science & Technology, Govt. of India GKVK campus , Bellary Road, Bengaluru, 560065.						
NleT No: - inStem/Maint(Civil)/15011/1/NleT- 94/2026-27. dated 05.06.2026						
NAME OF WORK:-						
“inStem- AMC for carrying out minor and repair civil Engineering works at the campus -2026-27”						
<b>Form "G"- DETAILS OF TECHNICAL &amp; ADMINISTRATIVE PERSONNEL TO BE EMPLOYED FOR THIS WORK</b>						
Name of the Agency						
Sr. No	Name	Designation	Qualifications	Professional experience and details of work carried out	How these would be involved in this work	Remarks
1	2	3	4	5	6	7
1						
2						
3						
4						
5						
6						
7						
8						
9						

NOTE: THE AGENCY MUST FILL UP ALL THE SHEETS VIZ. TECHNICAL DATA SHEET, FORM A AND B, FORM C, FORM D, FORM E , FORM F , FORM G, FORM H

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<p style="text-align: center;">Institute for Stem Cell Science and Regenerative Medicine (BRIC- inStem) An Autonomous RI of BRIC, Department of Biotechnology, Ministry of Science &amp; Technology, Govt. of India GKVK campus , Bellary Road, Bengaluru, 560065.</p>											
<p style="text-align: center;">NieT No: - inStem/Maint(Civil)/15011/1/NieT- 94/2026-27. dated 05.06.2026</p>											
<p style="text-align: center;">NAME OF WORK :- “inStem- AMC for carrying out minor and repair civil Engineering works at the campus -2026-27”</p>											
<b>Form H- DETAILS OF CONSTRUCTION PLANT AND EQUIPMENT LIKELY TO BE USED IN CARRYING OUT THIS WORK</b>											
Sr. No	Name of Equipment/ Plant	Nos.	Capacity or Type & make	Age	Condition	Ownership status			Current Location	Remarks	
						Presently owned	Leased	To be purchased			
1	2	3	4	5	6	7	8	9	10	11	12
3	Equipment for concrete work										
	1. Concrete pump										
	2. Concrete mixer (diesel)										
	3. Concrete chipping machine										
	4. Needle vibrator										
	5. Curing pumps (various capacities)										
4	Equipment for building work										
	1. Bar bending machine										
	2. Bar cutting machine										
	3. Drilling machine										
	4. Welding machines										



**SECTION-04**

**GENERAL DEFINATIONS:**

In the contract, the following expressions shall unless the context otherwise required have the meanings, hereby respectively assigned to them.

- i. The expression “works” or “work” shall unless there is something either in the subject or context repugnant to such construction, be construed and taken to mean the works by or by virtue of the contract contracted to be executed whether temporary or permanent and whether original, altered, substituted or additional.
- ii. The “Site” shall mean the land / or other places on, into or through which work is to be executed under the contract, or any adjacent land, path or street which work is to be executed under the contract or any adjacent land, path or street through which may be allotted or used for the purpose of carrying out the contract.
- iii. The “Contractor or service provider” shall mean the individual or firm or company, whether incorporated or not, undertaking the work and shall include the legal personal representatives of such individual or the persons composing such firm or company, or the successors of such firm or company and the permitted assignee of such individual or firm or firms or company.
- iv. “Department or institute” means the BRIC-inStem which invites the tenders on behalf of The Director / inStem as specified in schedule ‘F’.
- v. The “Director” means the Director, inStem, Bangalore and his successors.
- vi. The “Engineer-In-Charge” or “Project Manager” means the Officer or the appropriate competent authority declared by the Director, inStem, and who shall supervise and be in charge of the work and who shall sign the contract on behalf of the Institute Director.
- vii. “inStem” shall mean the Institute for Stem-cell Science and Regenerative Medicine.
- viii. Accepting Authority shall mean the authority mentioned in Schedule – ‘F’
- ix. Excepted Risk means risks due to riots (other than those on account of contractor’s employees), war (whether declared or not), invasion, act of foreign enemies, hostilities, Civil war, rebellion revolution, insurrection, military or

usurped power, any acts of Government, damages from aircraft, acts of God, such as earthquake, lightening and unprecedented floods, and other causes over which the contractor has no control and accepted as such by the Accepting authority or causes solely due to user or occupation by inStem, the part of the works in respect of which a certificate of completion has been issued or a cause or a cause solely due to inStem faulty design of works.

- x. Schedule(s) referred to in these conditions shall mean the relevant schedule(s) annexed to the tender papers or the standard schedule of rates of the Government mentioned in Schedule – F' hereunder with the amendments thereto issued up to the date of receipt of the tender.
- xi. Tendered value means the value of the entire work as stipulated in the letter of award.
- xii. Date of commencement of work: The date of commencement of work shall be the date of start as specified in schedule 'F' or the first date of handing over of the site, whichever is later, in accordance with the phasing if any, as indicated in the tender document.

## **SECTION - 05**

### **GENERAL CONDITIONS OF CONTRACT**

The General conditions of contract of CPWD (GCC 2023) for maintenance works with all the amendments and performa schedule annexed with this tender shall be applicable and form part of agreement. The annexed schedule shall be read as part of the CPWD-GCC-2020 The CPWD-GCC can be found and available for download in the link below [https://cpwd.gov.in/Publication/GCC CON Misc 29 Maintenance Works 2023.pdf](https://cpwd.gov.in/Publication/GCC_CON_Misc_29_Maintenance_Works_2023.pdf)

To this extent an undertaking in the following format shall have to be provided by the bidders.

#### **DECLARATION BY THE TENDERER**

- 1) I hereby declare that I have gone through clearly and understood the General Conditions of Contract along with the Schedules appended and other relevant formats available in the Office of the Civil engineering, BRIC-inStem and in the CPWD website at [https://cpwd.gov.in/Publication/GCC CON Misc 29 Maintenance Works 2023.pdf](https://cpwd.gov.in/Publication/GCC_CON_Misc_29_Maintenance_Works_2023.pdf)
- 2) My offer submission for the tender, is after fully considering the above and also the other documents issued along with the tender.
- 3) I also confirm that the offer now submitted is totally in agreement with the General Conditions of Contract read in conjunction with the documents, drawings and specifications issued for this particular tender, except for commercial & technical deviation, if any, specifically brought out in my Techno-Commercial offer, submitted herewith.

**Signature of the Bidder with seal**

## **SECTION - 06**

### **SPECIAL CONDITIONS OF CONTRACT**

1. Before filling the tender, the tenderer shall check all the tender documents and will have to get immediate clarifications from the inStem on any point that he feels is vague or uncertain. No claim/damages or compensation will be entertained on this account.

2. **TENDERER TO VISIT SITE:**

Each tenderer must, before submitting his tender, visit the site of works, so as to ascertain the physical site conditions prices and availability and quality of materials according to specifications before submitting the quotations. No excuse regarding non-availability of any materials or changes in the price will be entertained or extra allowed on that account.

The existing adjacent buildings belonging to Govt./private are in close proximity of the proposed construction, hence the contractor shall cater for all arrangements to carry out the work without causing any disturbance to the occupants by providing screens with bamboo matting or other suitable material approved by inStem. The contractor shall ensure that no dust or construction material falls near/around the existing buildings.

3. **EXECUTION OF WORK (PRICES TO INCLUDE):**

- i) The whole of the work as described in the Contract (including the Bill of Quantities, the specifications and all drawings pertaining thereto) and as advised by the institute from time to time is to be carried out and completed in all its parts to the entire satisfaction of the inStem. Any minor details of construction, which may not have been definitely referred to in this contract, but which are usual in sound building, road and all construction practice and essential to the work, are deemed to be included in this contract. Rates quoted in the Price bid document shall be inclusive of freights, taxes (GST shall be quoted separately) , such as octroi, Royalties, duties, excise, cess and seignories charges, turnover tax, etc., as well as transportation, so as to execute the contract as per the rules and regulations of Local Bodies, State Government and Government of India.

The rates quoted in the tender should also include all charges for:

- Labour
  - Carrying
  - Hauling
  - Fixing
  - Cleaning
  - Making good and
  - Maintenance etc.
- a) The contractor should arrange timely at his cost for all required.

- i) Plant, machinery, scaffolding, formwork, ladders, ropes, nails, spikes, shuttering, temporary supports, platforms, tools, all materials etc., required for executing the work, and protecting them from weather and other normal/natural causes.
  - ii) Covering/protecting for the walling and other works, during inclement weather, strikes etc., as and when necessary and or as directed.
  - iii) All temporary canvas covers/covering, lights, tarpaulin, barricades, water shoots etc.
  - iv) All stairs and steps, thresholds and any other requisite protection for the works.
  - v) All required temporary weather-proof sheds at such places and in a manner approved by the inStem/for the storage and protection of materials, against the effects of sun and rain.
  - vi) All required temporary fences, lighting/sign-boards etc., guards, approaches and roads as may be necessary for execution of the contract works and for safe guarding the facilities/Users.
- b) The Engineer-in-charge, inStem will be the sole judge in deciding as to the suitability or otherwise of the tools/formwork/machinery or plant that may be brought to the work site by the contractor for the proper execution of the work.
- c) The rates quoted by the tenderer in the Bill of Quantities items of work will be deemed to be for the finished work.

**4. SCHEDULE OF QUANTITIES (PRICE BID DOCUMENT):**

The Schedule of Quantities forms part of the contract, but the Employer reserves the right to modify the same or any part thereof. The contractor shall not be allowed any compensation or damages for the work which is so omitted or cancelled or added or substituted by the Center.

**5. ACCESS OF INSPECTION:**

The contractor is to provide at all times, during the progress of the works and the maintenance period, means of access with ladders, gangways etc., and the necessary attendants to move and adopt the same as directed for the inspection or measurement of the work by the inStem or any other agency employed by the Employer.

**6. DIMENSIONS:**

In all cases figured dimensions are to be accepted in preference to scaled sizes. Large scale details shall take precedence over small scale details/drawings. In case of any discrepancy, the contractor shall ask for a clarification, before proceeding with the work. Accordingly, if any work is executed without prior clarification, it is liable to be rejected and shall not be paid for,

**7. PROGRAMME OF WORKS:**

The contractor on starting the work shall furnish to the Engineer-in-charge a PERT / CPM programme chart in line with the project milestone as per Schedule-'F', for carrying out the work stage by stage in the stipulated time, for the approval of inStem, and follow strictly the approved time schedule by incorporating changes, if any, so authorized by the inStem, to ensure the completion of construction work in stipulated time. A graph or chart on individual item/group of items/trades of work shall be maintained, showing the progress both in terms of quantities and value, week by week. The contractor shall submit to the inStem a weekly progress report stating the number of skilled and unskilled laborers employed on the work, working hours done, quantity of cement, steel and other major items of materials (quantity and value wise) used and corresponding place, type and quantity of work done during the period.

The contractor must inform the institute, 10 days in advance of requirement of respective drawings and details by him, from time to time. The contractor shall strictly adhere to the approved programme and arrange for the materials and labour etc., accordingly.

, if the contractor fails to show satisfactory progress of the work in accordance with the approved program chart and milestone therein, the institute may take suitable action as deemed fit, including levying of liquidated damages as per relevant clause of CPWD – GCC-2023 for maintenance works.

**8. OFFICES, STORES, SHEDS ETC., ON THE SITE:**

- a. The contractor shall erect and maintain entirely at his own expense properly lighted, ventilated waterproof and lockable offices for his own staff or storing the materials on such part as the inStem shall indicate-
- b. Huts for Workers: Contractor has to make his/her own arrangements for the worker's hutment and inStem will not provide any space for erection of worker's hutment within its premises.
- c. Any penalty levied by the local authorities, for not following regional by-laws/regulations etc., in the matter, will have to be borne by the contractor.
- d. All these offices, stores etc. shall be demolished and the materials shall be taken away from site and groundleft in good and proper order on completion of work, as required and directed.
- e. The contractor shall provide for all necessary storage on the site, in a specified area for all materials, in such a manner that all such materials, tools etc., shall be duly protected from damages by weather or any other cause. Stores for storage of cement shall have all weather proof floors, walls and roof and have proper locking arrangements and must be secure. All these must be maintained till the work is completed and so certified by the Center. Necessary and adequate watch and ward for all such accommodations and stores shall be provided for by the contractor at his cost and same included in the rates/amounts quoted by him. All

such stores shall be cleared away and the ground left in good and proper order on completion of this contract unless otherwise expressly mentioned herein.

- f. All materials which are stored on the site such as Aluminum sections, PUF panels, cement, brick, metal sand etc., shall be stacked in such a manner as to facilitate rapid and easy checking of quantities of such materials and prevent deterioration in quality due to water etc.

**9. PROCUREMENT OF MATERIALS:**

Contractor shall procure all the materials including required for the work from the market. Time is the essence of the contract. Acceptance of the completion date by the contractor shall mean that he has taken into consideration the availability of all materials of approved make and quality in sufficient quantities at respective markets/sources, to enable him to complete the entire work in the stipulated period.

Contractor will get samples of all materials approved by the Engineer-in-charge, before placing order/purchase/procurement in bulk. They shall conform to relevant B.I.S. codes and or tender specifications as applicable.

For all materials, the contractor shall quote for the best quality of the materials of best make/source or supply and they should be got approved by the institute, before procurement.

In case sufficient quantities of approved quality materials from approved sources are not available in time, contractor may have to procure the same from neighboring areas even with longer leads, as required and directed, at no extra cost. The materials will be, however as per relevant B.I.S. specifications as and wherever applicable.

**10. TESTING:**

The contractor shall, as and when directed by the Engineer-in-Charge, in Stem, arrange to test materials and/or portions of the work at site in any approved laboratory at his own cost in accordance with the relevant specifications and BIS code of practice. The contractor shall transport all the materials from site to the approved laboratory at his own cost. The contractor shall carry out all the mandatory tests as per BIS relevant codes at the frequencies stated therein. Even after such tests, any materials brought to site or incorporated in the work are found to be defective or unsound or not as per approved samples, the contractor shall remove the same and re-erect at his own cost and without any additional time/period for the same, with reference to the date fixed for completing the work. In case these tests are not carried out at the frequencies stated, then proportionate costs of materials not so tested, including cost of testing and quantities of items of work executed with such materials, if otherwise accepted for retention in the work, will be deducted from the dues to the contractor. The deductions will be worked out by the Engineer-in-Charge and shall be final and binding on him.

Tolerance on various material and items of work shall be allowed laid down in the documents below and the order of precedence shall be:

- a) Relevant BIS Specifications.
- b) CPWD norms.
- c) Manufacturer's Specifications.

In absence of above Engineer-in-Charge, in-stem decision basing on the general practice being following shall be final.

Samples of materials required for testing shall be provided free of charge by the contractor. The cost of tests to be carried out on all material in approved labs shall be borne by the contractor.

- a. All the test in field lab setup at construction site shall be carried out by the Engineering Staff deployed by the contractor. The percentages of test as per specification, is to be witnessed by the representative of the Engineer-in-charge.
- b. All the entries in the registers will be made by the designated Engineering staff of the contractor and same should be regularly reviewed by Department representatives.
- c. Contractor shall be responsible for safe custody of all the test registers.
- d. Submission of copy of all Test Registers, Material at Site Register along with each Running Account Bill and Final Bill is mandatory. These registers should be duly checked
- e. Extensive testing of the materials used for construction is a pre-requisite for attaining high quality of the work. This shall also require specialized tests, physical, chemical, ultrasonic, x-ray and various other types of tests which cannot possibly be carried out in a site laboratory. These tests also require specialized personnel who regularly deal in such testing. Therefore, the need arises for carrying out the tests in outside laboratories. These laboratories may be in the Govt. sector, Semi Govt. or Private sector. The outside private laboratories shall be short listed before-hand by Engineer-in-Charge and approval obtained. In case of laboratories in the private sector, the past record and reputation of the laboratory must invariably be given due consideration. The infrastructure in these laboratories can also be inspected before they are short listed.

However, testing of material in IIT or NIT Lab / Govt. Engineering College, may be allowed by Executive Engineer with prior approval of SE, CPWD, Mysore provided these labs have all necessary facility to carry out the required tests.

#### **11. SITE MEETINGS:**

A senior representative of the contractor shall attend weekly meetings at workssite and in additions, meetings as and when arranged by the Center to discuss the progress of the work and sort out problems, if any, and ensure that the work is completed in the stipulated time.

**12. CUSTODY AND SECURITY OF MATERIALS:**

The contractor shall be responsible for the custody and security of all materials and equipment at site and he will provide full time watchman/watchmen to look after his materials, stores, equipment's etc., including cement and steel at site and ensure that at no time unauthorized persons gain any access at works site.

**13. MEASUREMENT TO BE RECORDED BEFORE WORK IS COVERED UP:**

The contractor shall take joint measurements with the Engineer-in-Charge or his representative before covering up hidden measurement or otherwise placing beyond the reach of measurement any item of work. Should the contractor neglect to do so, the same shall be uncovered at the contractor's expense or in default thereof, no payment or allowance shall be made for such work or the materials with which the same was executed.

**14. ACTION WHERE THERE IS NO SPECIFICATION:**

In case of any item/class of work, for which there is no specification mentioned (either in part or full), the same will be carried out in accordance with the relevant CPWD specifications (only for the specifications missing in the contract) and if not available even there (either in part or full) in, relevant standards of BIS shall be followed (only for the portions of specifications missing in the contract specifications and CPWD specifications), subject to the approval of the institute and if not available even there (either in part or full) in on specific approval from the Engineer-in-Charge, manufacturer's specification shall be followed (only for the portions of specifications missing in the contract specifications, CPWD specifications & BIS specifications )

In case of discrepancy between the Schedule of Quantities, the specifications and/or the drawings, the following order of preference shall be observed: -

- i) Description of Schedule of Quantities.
- ii) Particular specifications and special condition, if any.
- iii) C.P.W.D. specifications
- iv) Drawings.
- v) Specifications stated by OEMs..
- vi) Indian Standard specifications of B.I.S.

**15. CLEARING THE SITE ON COMPLETION / DETERMINATION OF WORKS:**

The contractor on completion or determination as the case may be shall make all necessary arrangement to clear the site of works. The site of works shall be cleared of all men, materials, sheds, huts etc., belonging to the contractor. The site shall be delivered in a

clean and neat condition, as required by Engineer-in-Charge/within a period one week after the job is completed/determined. In case of failure by the contractor, the Engineer-in-Charge under have the right to get the site cleared to his satisfaction at the risk and cost of the contractor.

**16. POSSESSION OF BUILDINGS/WORK COMPLETED:**

In the necessitated situation to the institute, the contractor shall hand over to the Engineer-in-Charge possession of the completed works in stages as and when required, and as directed by the Engineer-in-Charge.

The Engineer-in-Charge will take over the possession of completed works in stages and defects liability period will commence only from the date of handing over of all the completed works as stipulated in the price bid document.

Otherwise, the work shall have to be completed in all respect and handover to the institute. There shall be formal request from the contractor to the Engineer-in-charge for inspection and taking over on completion of the work.

**17. TYPOGRAPHIC, CLERICAL AND OTHER ERRORS:**

The Center clarification regarding partially omitted particulars or typographical, clerical and other errors shall be final and binding on the contractors.

If there are varying or conflicting provisions made in any document forming part of the contract, the Employer shall be the deciding authority, with regard to the intention of the document and his decision shall be final and binding on the contractor.

Any error in description, quantity or rate in schedule of quantities or any omission therefrom shall not vitiate the contract or release the contractor from the execution of the whole or any part of the works expressed therein according to drawings and specifications or from any of his obligations under the contract.

**18. SETTING OUT AND BENCH MARKS:**

The contractor shall construct and maintain proper bench marks at different places at site as required and directed by the Engineer-in-Charge, so that levels can be checked accurately at all times during the progress of work. In case benches are disturbed for any reason whatsoever, necessary rectification shall be carried out by the contractor at his cost as directed by the Engineer-in-Charge.

The contractor shall carry out true and proper setting out of the work in co-ordination with the Engineer-in-Charge or his authorized representatives and shall be responsible for the correctness of the positions, levels, dimensions and alignments of all parts of the structure. If at any time during the progress of the work any error appears or arises in the position,

level, dimensions or alignment of any part of the work, the contractor on being asked to do so by the Engineer-in-Charge, shall rectify such error to the entire satisfaction of Engineer-in-charge. The checking by the Engineer-in-Charge or his authorized representatives shall not relieve the contractor of his responsibility for the correctness of any setting out of any line or level. The contractor shall carefully protect and preserve all bench marks, pegs and pillars provided for setting out of works.

All setting out activities concerning establishment of bench marks, theodolite stations, centre line pillars, etc. including all material, tools, plants, equipments, theodolite and all other instruments, labour, etc. required for performing all the functions necessary and ancillary thereto at the commencement of the work, during the progress of the work and till the completion of the work shall be carried out by the contractor and nothing extra shall be paid on this account.

**19. FORCE MAJEURE:**

Neither inStem nor contractor shall be considered in default in performance of the obligations under this order if such performance is prevented or delayed by events such as but not limited to war hostilities, revolution, riots, civil commotion, strike, lock outs, conflagration, epidemics, accidents, fire, wind, floods, droughts, earth quakes or ordinances or any act of God, or for any other cause beyond the reasonable control of the party affected or prevented or delayed, is given within 30 (Thirty) days from the happening of the event and in case it is not possible to serve the notice within the shortest possible period without delay.

As soon as the cause of force majeure has been removed the party whose ability to perform its obligations has been affected shall notify, the actual delay incurred in such affected activity adding necessary evidence in support thereof. From the date of occurrence of a case of Force Majeure, obligations of the party affected shall be suspended during the continuance of any inability so caused with the cause itself and the inability resulting there from have been removed and the agreed time of completion of the respective obligations under this agreement shall stand extended by a period agreed to the period of delay occasioned by such events.

Should one or both parties be prevented from fulfilling the contractual obligations by a state of Force majeure lasting for a period of six months or more, the two parties shall consult each other and decide regarding the future execution of this agreement.

**20. COMPLETION OF WORK:**

The work shall be completed in **12 months from** the date of issue of Letter of Acceptance of tender or work order.

**21. BILLS OF PAYMENTS:**

The minimum value of work for interim payments shall be 3.0 lakhs. The contractor

shall submit an interim bill, on the basis of joint measurements recorded at site by the contractor's and inStem representatives. All such interim payments shall not be considered as an admission of the due performance of the contract or any part thereof in any respect and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be removed and taken away and reconstructed or re-erected at contractor's cost, all as per inStem instructions, and directions. However, the Engineer-in-charge may accept bills of lesser value at his discretion.

**22. WORKMANSHIP**

Quality of materials and workmanship shall conform strictly to the specifications given/stipulated in the tender/contract, and contractor shall ensure that the best quality of work will be done to the satisfaction of the institute, with strict control on the materials, workmanship and supervision.

**23. Technical specification:**

The work shall have to be executed as per the specifications in the schedule of quantities. For the detailed specifications "particular specification stipulated in the document and CPWD detailed technical specifications-2019 " will have to be referred for the civil & PH works . The CPWD specification -2019 -vol-1 & 2 may be downloaded from the following web address.

[https://cpwd.gov.in/Documents/cpwd\\_publication.aspx](https://cpwd.gov.in/Documents/cpwd_publication.aspx)

**24. QUANTITIES:**

Quantities mentioned in the Bill of Quantities, included in the contract, are approximate and are subjected to variations as per actual site conditions & requirements and as directed by the Engineer-in-Charge. The work shall be executed and completed accordingly.

**25. SITE SUPERVISION:**

The contractor shall appoint at his own cost competent and adequate number of qualified Engineers at site, for

- a) joint measurements and preparations of bills.
- b) For testing materials at site and in outside laboratory.
- c) For concreting and reinforcement work.
- d) For other general supervision. Their appointment shall be approved by the inStem. The site engineers shall not be removed from the site without the written consent of the Engineer-in-Charge.

**26. INCOME TAX AND GOODS AND SERVICES TAX (GST):**

Income tax and other statutory shall be deducted at source as applicable by from the contractor's interim and final bill payments as required by law. The contractor shall submit the GST paid invoice to the Center as proof of payment.

**27. WORKER WELFARE CESS:**

Cess at the rate of 1% shall be deducted at source as applicable by from the contractor's interim and final bill payments as required by law

**28. EXTRA/SUBSTITUTED ITEM RATES:**

Such items shall be executed as per directions/instructions of the Engineer-in-Charge, inStem.

The work on extra/substituted items shall be started only after the receipt of written order from Engineer-in-charge. However, rates for additional/extra or substituted (altered) items of work, which are not covered in the contract shall be derived based on the relevant clauses of CPWD-GCC-2023-maintenance works, the finalization of which shall not holdup the execution of such additional/extra items in any manner.

**29. SERVICES DRAWINGS**

The contractor shall furnish completion drawings of all services in triplicate, showing the work as actual executed, along with levels. Costs of all these are deemed to have been included in the respective item rates quoted by the contractor and nothing extra shall be paid on account of any of these requirement/acts.

**30. AGREEMENT:**

The successful contractor shall be required to enter into an agreement within 10 days (Ten) from the date of issue of letter of acceptance. The contractor shall pay for all stamps and legal expenses incidental thereto. However, the written acceptance of the tender by the inStem, will constitute as a binding contract between the inStem and contractor, whose tender has been accepted, whether such formal agreement is or is not subsequently executed. The standard CPWD-GCC-2023-maintenance works shall be part of the agreement.

**31. INSURANCE:**

Before commencing the execution of work, the Contractor shall, without in any way limiting his obligations and liabilities, at his own cost and expense insure against any damage or loss or injury, which may be caused to any person or property, at site of work. The Contractor shall obtain and submit to the Engineer-in-Charge "Contractors All Risk Insurance Policy" with Engineer in Charge as the first beneficiary. The insurance shall be obtained in joint names of Engineer-in-Charge and the Contractor (who shall be second beneficiary). Also, he shall indemnify the Department from any

liability during the execution of the work. Further, he shall obtain and submit to the Engineer-in-Charge, a third party "all insurance policy" which covers all the damages happened in the event of accidents as the first beneficiary. The insurance shall be obtained in joint names of Engineer-in-Charge and the Contractor (who shall be second beneficiary).

The Contractor shall, from time to time, provide documentary evidence as regards payment of premium for all the Insurance Policies for keeping them valid till the completion of the work. The Contractor shall ensure that Insurance Policies are also taken for the workers of his Sub-Contractors / specialized agencies also. Without prejudice to any of its obligations and responsibilities specified above, the Contractor shall within 10 days from the date of letter of acceptance of the tender and thereafter at the end of each quarter submit a report to the Department giving details of the Insurance Policies along with Certificate of these insurance policies being valid, along with documentary evidences as required by the Engineer-in-Charge. No work shall be commenced by the Contractor unless he obtains the Insurance Policies as mentioned above. Also, no payment shall be made to the Contractor on expiry of insurance policies unless renewed by the Contractor. Nothing extra shall be payable on this account. No claim for hindrance (or any other claim) shall be entertained from the contractor on these accounts. It shall be deemed that the contractor has obtained the insurance and has renewed it in time even on non-submission of the insurance certificate by the contractor or non-renewal of the insurance by the contractor, The Engineer in charge shall not be responsible for the lapse of the contractor.

**32. INSPECTION BY THE CHIEF TECHNICAL EXAMINERS (VIGILANCE):**

The proposed work covered under this tender, during the progress and or after completion, can also be inspected by the Chief Technical Examiner/ Technical Examiner or Officers of the Central Vigilance Commission, Government of India, on behalf of the Institute to ascertain that the execution of the work has been done with materials and workmanship all as stipulated in the contract and as directed.

Contractor shall afford all reasonable facilities to the above vigilance staff and also provide them with ladders, tapes, plumb bob, level etc., as required and directed and also necessary labourers skilled/unskilled to enable them to complete their inspection/study/technical scrutiny and no extra shall be admissible to the contractor on this account.

**33. WORKS TO BE OPEN FOR INSPECTION:**

All works under or in course of execution or executed in pursuance of the contract shall at all times be open to the inspection and supervision of the Engineer and the contractor shall at all times during the usual working hours and at all other times at which reasonable notice of the intention of the Engineer to visit the works shall have been given to the contractor, either himself be present to receive order and instruction or have a responsible agent duly accredited in writing present for that purpose.

The contractor shall give not less than seven days' notice in writing to the Engineer in charge before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof be taken

before the same is so covered up or placed beyond the reach of measurement and shall not cover up and placed beyond the reach of measurement, any work without the consent in writing of the Engineer and the Engineer shall within the aforesaid period of seven days inspect the work, and if any work shall be covered up or placed beyond the reach of measurement without such notice having been given or the Engineer's consent obtained the same shall be uncovered at the contractors expense or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed

**34. DEFECTS LIABILITY PERIOD:**

Defects Liability period shall be Six (06) Months from the date of completion of Each job / works in all respects.

**35. WATER AND POWER SUPPLY:**

The contractor shall have to make his/her own arrangements for temporary water and electricity required for the construction works. In the case, contractor willing to avail the institute provision and if institute able to provide the same, which will be on following terms:

**36. PRIORITY OF CONSTRUCTION:**

The Contractor has to execute such items/works on priority basis, as may be decided by the client. The work programme is to be approved in writing before execution. Client reserves right to alter the priority as the case may be.

**37. SETTLEMENTS OF DISPUTES AND ARBITRATION:**

Except where otherwise provided in the contract, all questions and disputes relating to the meaning of the specifications, designs, drawings and instructions here-in before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works or the execution or failure to execute the same whether arising during the progress of the work or after the cancellation, termination, completion or abandonment thereof shall be dealt with as mentioned here-in after.

(i) If the contractor considers any work demanded of him to be outside the requirements of the contract, or disputes any drawings, record or decision given in writing by the Engineer-in-Charge on any matter in connection with or arising out of the contract or carrying out of the work, to be unacceptable, he shall promptly within 15 days request the Engineer-in-Charge in writing for written instruction or decision.

Thereupon, the Engineer-in-Charge shall give his written instructions or decision within a period of one month from the receipt of the contractor's letter.

If the Engineer-in-Charge fails to give his instructions or decision in writing within the aforesaid period or if the contractor is dissatisfied with the instructions or decision of the Engineer-in-Charge, the contractor may, within 15 days of the receipt of Engineer-in-Charge's decision, appeal to The Director, inStem, who shall afford an opportunity to the contractor to be heard, if the latter so desires, and to offer evidence in support of his appeal. The Director, inStem shall give his decision within 30 days of receipt of contractor's appeal.

If the contractor is dissatisfied with his decision, the contractor shall within a period of 30 days from receipt of the decision, give notice to the Director, inStem for appointment of arbitrator, failing which the said decision shall be final, binding and conclusive and not referable to adjudication by the arbitrator.

(ii) Except where the decision has become final, binding and conclusive in terms of Sub Para (i) above disputes or difference shall be referred for adjudication through arbitration by a sole arbitrator appointed by the Director, inStem in respect of the contracts entered into by any sub-ordinate authority under him. However, if the contract is entered into by the Director, the arbitrator shall be appointed by the inStem.

If the arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever, another sole arbitrator shall be appointed in the manner aforesaid. Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor.

It is a term of this contract that the party invoking arbitration shall give a list of disputes with amounts claimed in respect of each such dispute along-with the notice for appointment of arbitrator and giving reference to the rejection by the Director of the appeal.

It is also a term of this contract that no person other than a person appointed by such Director, as aforesaid should act as arbitrator and if for any reason that is not possible, the matter shall not be referred to arbitration at all.

It is also a term of this contract that if the contractor does not make any demand for appointment of arbitrator in respect of any claims in writing as aforesaid within 120 days of receiving the intimation from the Engineer-in-charge that the final bill is ready for payment, the claim of the contractor shall be deemed to have been waived and absolutely barred and the Government/institute shall be discharged and released of all liabilities under the contract in respect of these claims.

The arbitration shall be conducted in accordance with the provisions of the Arbitration and Conciliation Act, 1996 (26 of 1996) or any statutory modifications or re-enactment thereof and the rules made there under and for the time being in force shall apply to the arbitration proceeding under this clause.

It is also a term of this contract that the arbitrator shall adjudicate on only such disputes as are referred to him by the appointing authority and give separate award against each

dispute and claim referred to him and, in all cases, where the total amount of the claims by any party exceeds Rs.1,00,000/-, the arbitrator shall give reasons for the award.

It is also a term of the contract that if any fees are payable to the arbitrator, these shall be paid equally by both the parties.

It is also a term of the contract that the arbitrator shall be deemed to have entered on the reference on the date he issues notice to both the parties calling them to submit their statement of claims and counter statement of claims. The venue of the arbitration shall be such place as may be fixed by the arbitrator in his sole discretion. The fees, if any, of the arbitrator shall, if required to be paid before the award is made and published, be paid half and half by each of the parties.

The venue of the arbitration shall be such place as may be fixed by the Arbitral Tribunal in consultation with both the parties. Failing any such agreement, then the Arbitral Tribunal shall decide the venue

The cost of the reference and of the award (including the fees, if any, of the arbitrator) shall be in the discretion of the arbitrator who may direct to any by whom and in what manner, such costs or any part thereof shall be paid and fix or settle the amount of costs to be so paid.

**38. MODE OF MEASUREMENT:**

The mode of measurement will be as per CPWD standard specifications or IS 1200 for all items. There shall be no disputes in this regard.

**39. INTERPRETATION:**

The Special Conditions of Contract shall be read in conjunction with the General Conditions of Contract, (CPWD) Technical Specifications (CPWD) and Technical Specifications Electrical and air-conditioning works. Drawings and any other documents forming part of this contract wherever the context so requires.

The Notice Inviting Tender, General Conditions of Contract (CPWD), Detailed technical specification, Drawings & the bidding documents comprising of Special Conditions of Contract, Price Bid Document & Telegram of Intent/Letter of Intent shall form part and parcel of the Agreement.

Notwithstanding, the sub-division of the documents into these separate sections and volumes, every part of each shall be deemed to be supplementary to and complementary of every other part and shall be read with and into the contract so far as it may be practicable to do so.

Where any portion of the General Conditions of Contract is repugnant to or at variance with any provisions of the Special Conditions of Contract, then, unless a different

intention appears, the provisions of the Special Conditions of Contract shall be deemed to override the provisions of the General Conditions of Contract and shall to the extent of such repugnancy or variations prevail.

**40. OBSERVANCE OF LABOUR LAWS & PRINCIPAL EMPLOYER**

Observance of labour laws shall be as per the clause No.19 of General Conditions of Contract. Principal Employer's certificate will be issued by the institute.

**41. SECRECY**

The contractor shall take all steps necessary that all persons employed on any work in connection with the contract have notice that the Indian Official Secrets Act 1923 applies to them & will continue so to apply even after the execution of such works under the contract.

The contract is confidential and must be strictly confined to the contractor's own use (except so far as confidential disclosure to sub-contractors or suppliers as necessary) and to the purpose of the contract.

All documents, copies thereof & extracts there from furnished to the contractor shall be returned to the Engineer-in-Charge on the completion of the work / works or the earlier determination of the contract.

**42. Compliance of directives of Hon'ble National Green tribunal (NGT) dated 04.12.2014 and 10.04.2015 and EIA guidance manual issued in February 2010 with latest updates.**

The contractor shall comply with following guidelines on the matter in pursuance of orders passed by Hon'ble National Green Tribunal.

- 42.1. The contractor shall not store / dump construction material or debris on metalled road.
- 42.2. The contractor shall get prior approval from Engineer-in-charge for the area where the construction material or debris can be stored beyond the metalled road. This area shall not cause any obstruction to the free flow of traffic / inconvenience to the pedestrians. It should be ensured by the contractor that no accidents occur on account of such permissible storage

- 42.3. The contractor shall take appropriate protection measures like raising wind breakers of appropriate height on all sides of the plot/area using CGI sheets or plastic and/or other similar material to ensure that no construction material dust fly outside the plot area. The contractor shall ensure that all the trucks or vehicles of any kind which are used for construction purposes/or are carrying construction material like cement, sand and other allied material are fully covered. The contractor shall take every necessary precaution that the vehicles are properly cleaned and dust free to ensure that enroute their destination, the dust, sand or any other particles are not released in air/contaminate air.
- 42.4. The contractor shall provide mask to every worker working on the construction site and involved in loading, unloading and carriage of construction material and construction debris to prevent inhalation of dust particles.
- 42.5. The contractor shall provide all medical help, investigation and treatment to the workers involved in the construction of building and carry of construction material and debris relating to dust emission.
- 42.6. The contractor shall ensure that C&D waste is transported to the C&D waste site only and due record shall be maintained by the contractor.
- 42.7. The contractor shall compulsory use of wet jet in grinding and stone cutting.
- 42.8. The contractor shall comply all the preventive and protective environmental steps as stated in the MoEF guidelines, 2010.
- 42.9. The contractor shall carry out on-road-inspection for black smoke generating machinery. The contractor shall use cleaner fuel.
- 42.10. The contractor shall use vehicles having pollution under control certificate. The emissions can be reduced by a large extent by reducing the speed of a vehicle to 20 kmph. Speed bumps shall be used to ensure speed reduction. In cases where speed reduction cannot effectively reduce fugitive dust, the contractor shall divert traffic to nearby paved areas.
- 42.11. The contractor shall ensure that the construction material is covered by tarpaulin. The contractor shall take all other precaution to ensure that no dust particles are permitted to pollute air quality as a result of such storage.
- 42.12. Nothing shall be paid extra for fulfilling of all the above conditions except for the items existing in the schedule of quantities. For such items, work done shall be paid on the basis of the agreement rates.

#### **43. AS BUILT DRAWINGS**

On completion of work, the contractor shall submit at his own cost four prints of "as built" drawings of the completed work to the Engineer-in-Charge. These drawings shall have the following information.

- a) Run off of all piping and their diameters including soil, waste pipes and vertical stacks.
- b) Ground and invert level of all drainage pipes together with locations of all manholes and connections, upto out fall.
- c) Run off of all water supply lines with diameters, location of control valves, access panels etc.

In case the contractor fails to supply "as built drawing" aforesaid within 30 days of the date of completion, then the recovery @50,000/- shall be made from the contractor's final bill.

**SECTION -07**

**DETAILED TECHNICAL SPECIFICATIONS**

The CPWD technical specifications-2019 (Vol.1 & 2) for Civil & PH works shall be applicable and form part of this agreement. Any discrepancies between the specifications in the schedule of quantities, particular specification given in the tender and in the CPWD technical specifications, the specifications in the schedule of quantities will prevail followed by particular specifications. However, such discrepancies shall have to be brought to the notice of the Engineer-in-Charge before execution and decision by the Engineer-in-Charge in his regard will be final and binding. The CPWD technical specifications-2019 (Vol.1 & 2) for Civil & PH works, available for download in the link below [https://cpwd.gov.in/Documents/cpwd\\_publication.aspx](https://cpwd.gov.in/Documents/cpwd_publication.aspx)

To this extent an undertaking in the following format shall have to be provided by the bidders.

**DECLARATION BY THE TENDERER**

- 1) I hereby declare that I have gone through clearly and understood the CPWD technical specifications-2019 (vol.1 & 2) available in the Office of the Civil engineering, BRIC-inStem and in the CPWD website at [https://cpwd.gov.in/Documents/cpwd\\_publication.aspx](https://cpwd.gov.in/Documents/cpwd_publication.aspx)
- 2) My offer submission for the tender, is after fully considering the above and also the other documents issued along with the tender.
- 3) I also confirm that the offer now submitted is totally in agreement with the General Conditions of Contract read in conjunction with the documents, drawings and specifications issued for this particular tender, except for commercial & technical deviation, if any, specifically brought out in my Techno-Commercial offer, submitted herewith.

**Signature of the Bidder with seal**

**SECTION-08**

**COMPLIANCE TO LABOUR LAWS & APPRENTICE ACT**

The contractor shall comply with all the provisions of the

- 1) Minimum Wages Act, 1948,
- 2) Contract Labour (Regulation and Abolition) Act, 1970, and rules and orders framed there under and other labour laws affecting contract labour and Apprentice Act, 1961 and the rules and orders framed there under that may be in force or brought into force from time to time. Contractor shall obtain a valid license under Contract Labour (R&A) Act 1970 and Contract Labour (R&A) Central Rules 1971 before commencing work and which should be valid till the completion.
- 3) Building and other construction workers act (BOCW act)

**SECTION-09**  
**ANNEXURE-2: FORWARDING LETTER**  
**(to submitted in the letter head of the firm)**

To

The Director,  
BRIC-inStem  
GKVK Campus, Bellary Road  
Bengaluru – 560065  
(Hereinafter referred to as Institute)

Dear Madam

I/We have read and examined the following documents relating to the work “inStem – Annual rate contract for carrying out minor and repair civil engineering works at the campus during the year 2024-25”.

- (a) Notice Inviting Tender (Part A to E)
- (b) Special Conditions of Contract
- (c) CPWD-GCC-2023 for maintenance works along with the annexed schedules
- (d) Particular specifications and CPWD-Civil &PH works-Technical Specification
- (e) List of recommended makes
- (f) Safety observations and commitment from the contractor’s
- (g) Bill of Quantity

Upon reading the terms and conditions contained or referred to therein and in accordance in all respect with the specifications, design, drawings and other relevant details, I/We hereby tender for the execution of the works referred to in the aforesaid documents and agree to keep the tender open for Seventy-five (75) days from the date of opening of technical bid.

A sum of 6000.00/- as Earnest money deposit is submitted or deposited along with this tender. If I / We fail to keep the tender validity of tender open for a period of 75 days after opening the tender(s) or make any modifications in the terms and conditions of the tender, which are not acceptable to the Institute or I/We fail to submit the performance guarantee within the prescribed period or I/we fail to commence the work within the prescribed period, I/We agree that the Institute inStem shall, without prejudice to any other right or remedy, be at liberty to forfeit the said Earnest money deposit as per stipulated tender conditions in this regard . Should this tender be accepted, I/We hereby, agree to abide by and fulfill all the terms, conditions and provisions of the aforesaid documents.

In the event of this Tender being accepted I/We agree to enter into an agreement and execute the contract according to article of agreement, within a Ten (10) days of receipt of work order, in default thereof, I/We do hereby bind my- self/ourselves to forfeit the aforesaid Earnest money deposit.

I/We agree to pay the Government, GST (State and Central), Excise and Octroi duties, Insurance,

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Seigniorage charges and all other taxes etc., at the rates prevailing from time to time as per the Act, as amended and rates quoted by me/us are inclusive of the same.

I/We agree to pay Income tax, to be deducted at source on the Gross value of the workdone, and the rates quoted by me/we are inclusive of same.

I/We agree to get the insurance for the work & workers to be engaged on the work at site and all materials and machinery collected and kept/operated at site for execution of the work. In case part work is taken over by the Employer before final completion of the whole work, such parts may not be covered by the insurance from the date of taking over that part of work by the Employer. All the rates quoted by me/ us are inclusive of the same in full and nothing extra shall be claimed anytime on account of any of these.

Yours faithfully,

Contractor's Signature

Address:

Date:

.....  
.....  
.....  
.....  
.....

**ANNEXURE-3: TENDER ACCEPTANCE LETTER BY BIDDER  
(To be given on Company Letter Head)**

**Date:**

**To:**

The Director,  
Institute for stem cell science and regenerative medicine  
GKVK campus  
Bellary Road  
Bangalore – 65

Sub: Acceptance of Terms & Conditions of Tender.

Tender Reference No: \_\_\_\_\_

Name \_\_\_\_\_ of \_\_\_\_\_ the \_\_\_\_\_ work: \_\_\_\_\_

Dear Madam/Sir,

1. I/ We have obtained the tender document(s) for the above mentioned 'Tender/Work' from \_\_\_\_\_ the \_\_\_\_\_ office \_\_\_\_\_ namely: \_\_\_\_\_

\_\_\_\_\_ as per your advertisement, given in the above-mentioned website(s).

2. I / We hereby certify that I / we have read the entire terms and conditions of the tender documents from Page No. \_\_\_\_\_ to \_\_\_\_\_ (including all documents like annexure(s), schedule(s), etc .), which form part of the contract agreement and I / we shall abide hereby by the terms / conditions / clauses contained therein.

3. The corrigendum(s) issued from time to time by your department/ organisation too have also been taken into consideration, while submitting this acceptance letter.

4. I / We hereby unconditionally accept the tender conditions of above-mentioned tender document(s) / corrigendum(s) in its totality / entirety.

5. I / We do hereby declare that our Firm has not been blacklisted/ debarred by any Govt. Department/Public sector undertaking.

6. I / We certify that all information furnished by our Firm is true & correct and, in the event, that the information is found to be incorrect/untrue or found violated, then your department/ organisation shall without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

Yours Faithfully,

(Signature of the Bidder, with Official Seal)

**ANNEXURE-4: FORMAT OF ARTICLES OF AGREEMENT**

**AGREEMENT FOR.....**

Agreement made this ..... between the Institute for Stem Cell Science and Regenerative Medicine, GKVK campus, Bangalore-560065 represented by the Incharge Senior Engineer on behalf of the Director. (Here in after called the "INSTITUTE") on ONE PART.

AND

....., (Here in after called the "CONTRACTOR") on the OTHER PART.

WHEREAS the Head (SE&M) on behalf of the Director invited tenders for the work of .....

AND WHEREAS the contractor submitted his offer for the aforesaid work, which was accepted by the Director, vide .....

AND WHEREAS the contractor has accepted the work order for the work aforesaid.

1. This agreement enclosed here to annexure contains the entire contract between the parties. All the work executed by the contractor under the work order and undertakings given by either party in terms of the work order shall deemed to be executed or given under the terms and conditions of this Agreement.
2. In consideration of the payments to be made by the Institute to the contractor as mentioned in this contract, the Contractor hereby covenants with the Institute to carry out the aforesaid work as mentioned in this Agreement.
3. The Institute hereby covenants to pay to the Contractor in consideration of the aforesaid work his remuneration in the manner mentioned in this Agreement.
4. The Director has designated ..... as Engineer In charge. All correspondences with respect to this work shall be addressed only to the Engineer-in-charge.
5. In witness where of the constituted attorney of .....on behalf of the Director have here into affix their seals and signatures on the day and year herein above written.

Signature :

Name :

Address :

WITNESS

Signature :

Name :

Address :

Signed by

Signature :

Name :

Address :

WITNESS

Signature :

Name :

Address :

**SECTION-10****LIST OF PREFERRED MAKES****GENERAL NOTES:**

1. Products with relevant I.S. markings from the B.I.S. Licensed manufacturers, who are in the market for the last three years with valid I.S. License, shall be considered for approval.
2. In case of items where I.S. marked material is not available, the contractor shall procure the same from the following list, subject to prior approval of Engineer-in-charge. Periodic tests shall be carried out as per contract / specifications at contractor's own cost.
3. In case of any new brand other than BIS certified or from departmental list of manufacturers is proposed, adequate information about the product and manufacturer, shall be provided at the tender stage.
4. Department reserves the right to accept / reject any new brand(s) proposed by the tenderer.
5. Samples of all materials, fittings etc. to be incorporated in the work shall be submitted by the contractor and got it approved from the Engineer-in-Charge, before supply in bulk at site of work. Wherever particular make or its equivalent is mentioned in the item schedule, the decision of the Engineer-in-Charge in selection of particular make or its equivalent shall be final and binding on the contractor. The approved samples will be kept in custody of the Engineer-in-Charge till completion of the work. Materials not conforming strictly to the approved samples will be rejected.

S.N	DESCRIPTION	MANUFACTURERS
01	Cement	M/s Ultratech, M/s ACC, M/s Lafarge, M/s Ambuja, M/s RAMCO Cement, M/s Binani, M/s Rajshree, M/s Birla Cement, M/s Zuari or equivalent
02	Ready Mix concrete plant	M/s Ultratech, M/s ACC, M/s Lafarge, M/s. Ready mix India Ltd, M/s.Godrej or Nearby RMC plant Subject to approval of the plant by the Department.
03	Reinforcement Steel	M/s TISCO, M/s SAIL, M/s RINL, M/s Kamdhenu-or Equivalent
04	Structural Steel Section	M/s TATA, M/s SAIL, M/s RINL, equivalent approved Structural Steel Section Manufacturers. (In case of non availability of structural sections with primary manufacturers)
05	Precast Concrete Products	Siporex Ind.; B.G. Shirke & Co.; Supreme Concrete( Minato Blocks)-Kolhapur, KK-Nasik
06	(a) Anti-termite Treatment chemical (b) Agency	(a) Central Insecticide Board approved (ISI Marked) Chemical (b) Specialized agency shall be a Member of IPCA (Indian Pest Control Association)
07	Modular Wall Panel/ Ceiling Panel/Doors	FABTECH/I-CLEAN/GMP/SYNERGY/ NICOMAC /AIRTECH
08	Concrete Paver Block	M/s Super Tile, M/s Supreme Concrete, M/s Minato Blocks (Kolhapur.), M/s Basant Betons, M/s Gico Tiles (Bhubaneshwar), M/s Multiwyn
09	Ceramic / Glazed/ Vitreous Tiles	M/s Regency Ceramics, M/s Kajaria Ceramics, M/s H. R. Johnson (I), M/s Bell, M/s Somani Tile
10	PU Floors	ARDEX ENDURA (India) Pvt. Ltd or Equivalent
11	Epoxy Flooring	ARDEX ENDURA (India) Pvt. Ltd or Equivalent
12	Pressed Steel Door Frames	M/s Sen Harvic, M/s Welcome Door, M/s AGEW, M/s Multiwyn, ) M/s Anjali Enterprises, M/s Shakti Met-dor Limited, M/s Behar Bobbin Engineering Works, Katihar, M/s Nishan Solid door frames (Solidor), M/s B A Enterprise, Kolkata.

13	a)Steel Doors,Windows	M/s Sen Harvic; M/s Welcome Door; M/s Multiwyn, M/s Shakti Met-dor Limited, M/s. AGEW, M/s. Abaqs, M/s. Techome; M/s. Windoors, M/s R L Vala & Sons M/s B A Enterprise, Kolkata. M/s Maxo Metal Enterprises, Kolkata
	b)M.S. Fire rated door	M/s Shakti Met-dor Limited, M/s. Abaqs, M/s. Godrej
14	PVC/FRP Doors & Frames	M/s Deep Doors, M/s Fibroplast
15	PVC Integral Foam Doors	M/s Jain Irrigation System (Excel Plastic Sheet)
16	a) Aluminium Sections For Doors, Windows & Wall Spans	M/s Jindal; M/s Hindalco, M/s ALOM Extrusion;
	b)Aluminium Hardware	M/s Metco, M/s Allen, M/s Crown, M/s Ebco, M/s. Alans; M/s. Al-Alfa;
17	a)Plain Glass	M/s Modi Guard; M/s Saint Gobain, M/s Indo-Asahi Glass,
	b) Reflective Glass	M/s Saint Gobain, M/s Indo-Asahi Glass
	c) Toughened, Laminated, Insulated glass	Saint-Gobain Glass India Ltd., Gold Plus Toughened glass Ltd., GSC Toughened Glass Pvt. Ltd.
	d)High Performance Glazing	Glaverbel, Emirates, Saint -Gobain Glass.
18	Flush door Shutter	M/s Kalpatru, M/s Kutty Flush Door, M/s Century, M/s Kit-ply, M/s Sylvan Ply, Kolkata; M/s. Shreeji, M/s Jawahar Saw Mills
19	Ply-wood	M/s Century, M/s Kitply, M/s India Plywood, M/s Green Ply, M/s Sylvan Ply, Kolkata
20	Plain/Pre-laminated Phenol bonded MDFBoard	M/s Novopan, M/s Nuwood, M/s Bhutan Board, M/s Green Ply
21	Veneers	M/s Century, M/s Kitply, M/s India Plywood, M/s Green Ply ,M/s Timex, M/s Merino
22	Decorative Laminates	M/s Formica, M/s Greenlam, M/s Century Ply, M/s Merino, M/s Timex
23	a) Doors Fittings & Fixtures (MS,Al,SS,Brass)	M/s Shalimar, M/s Saifee, M/s Garg, M/s Alans, Kolkata; M/s. AL-Alfa
	b) Decorative High SS Finish Fittings and Fixtures	M/s Guardian, M/s Hafele, M/s Hettich, M/s Ozone, M/s Dorma.
	c) Mortise Locks, Night latch	M/s Godrej , M/s Guardian
	d) Door Closer	M/s Everite, M/s Hardwyn, M/s Godrej, M/s Hyper, M/s. Garnish. M/s Dorma
	e) Floor Spring	M/s Everite, M/s Hardwyn, M/s Godrej, M/s Hyper, M/s Dorma, M/s Hafele, M/s. Garnish.
	f) Glass Patch Fittings	M/s Dorma, M/s Ozone,
24	a) Bitumen impregnated Fibreboard & Tarfelt Waterproofing	M/s Tikki Tar Industries, M/s STP Ltd., (Shalimar Tar Products);
	b) Expansion joint filler Board (HD-100)	M/s Supreme Industries.
	c)APP modified waterproofing membrane	M/s Dr. Fixit, M/s STP Ltd.

25	Integral Water Proofing Compound (Polymers, Sealants)	M/s Cico, M/s Pidilite; M/s Roff.; M/s Mc-Bouchmie; M/s Fosroc, M/s Sunanda Chemicals, M/s. BASF, M/s. Sika,
26	Polymers/ Chemicals for Structural Repair	M/s Pidilite; M/s Roff.; Mc-Bouchmie; M/s Fosroc, M/s Sunanda Chemicals, M/s Sika.
27	False Ceiling	
	a) Gypsum based	M/s Saint Gobain Gyproc India Ltd.
	b) Calcium silicate Based	M/s Ramco Industries (Hilux), M/s Aerolite.
	c) Mineral Fiber Board	M/s Armstrong.
	d) Metal False Ceiling	M/s Hunter & Douglas*, M/s Interarch Building Products, M/s Supersil M/s Armstrong
28	a) Thermal Insulation Fiber-glass wool / rockwool	M/s Twiga Insul.
	b) Thermal Insulation Phenolic Foam Phenotherm board	M/s Bakelite Hylam.
29	Wall care Putty	M/s Birla White, M/s. Walplast, M/s J K White.
30	a) Interior & Exterior Paints	M/s Asian Paints, M/s Nerolac, M/s ICI Dulux Paints, M/s Jenson Nicholson, M/s Berger Paints; M/s Pidilite, M/s Jotun, M/s Snowcem (Super Snowce, Sandtex Matt), M/s Nitco Paints (M/s Sherwin Williams), M/s Jotun Paints
	b) Fire Retardant Paints	M/s Noble Paints
	c) Wood Polish Finishes (Lacquer, Varnish, Polyurethane)	M/s Asian Paints, M/s ICI Dulux Paints
31	Epoxy Paint	ARDEX ENDURA (India) Pvt. Ltd, Fosroc
32	PU Paint	ARDEX ENDURA (India) Pvt. Ltd, Fosroc
33	<b>MISCELLANEOUS</b>	
a	Adhesive	Fevicol (Pidilite Ind. Ltd), Vamicol, Century SH, Araldite, Mansonite.
	Modular Wall Panel/ Ceiling Panel/ Doors	FABTECH/I-CLEAN/GMP/SYNERGY/ NICOMAC /AIRTECH
b	Pigments	Tata chemicals, Sudershan Chemical Industries.
c	PVC dividing strips.	Fixopan or approved equivalent.
d	Anti-termite.	Indo Gulf Pest Control, Montari Industries.

e	Pavers & Kerb Stone	UniStone Product (India) Pvt Ltd., Modern Tiles Group of Industries, Nitco Marble & Granite Pvt Ltd.
f	PVC Doors and Windows.	Sintex, Finnesta Building System, Accura (Vijay Doors).
g	Shuttering	Cuplock type
h	R.C.C PIPE	IHP
i	Shuttering Oil	Fosroc.
j	Pest control	Indian Pest Control, Intimate Pest Control
k	Restroom Cubicles	Merino.
l	Epoxy Adhesive	Fevicol (Pidilite Ind. Ltd).
m	Sil Fil ( Armour Board )	Supreme Industries Ltd. or equivalent
n	Polythene sheet	Supreme Industries Ltd. or equivalent
o	Protection Board (Drentex protect 80)	Texsa or equivalent
p	Acrylic resin sealer	MYK or equivalent
q	Sil Fil ( Armour Board )	Supreme Industries Ltd. or equivalent
r	Sun control non-reflective film	3M
s	Silicon sealant	Dow Corning, GE, Wacker or equivalent
t	S.S. Railing	Kich / Jindal Arch
u	Restroom Cubicles	Merino.
<b>34</b>	<b>STONES</b>	
	Granite	First Quality as per approved sample/ approved quarries
	Marble	First Quality as per approved sample/ approved quarries

	Kotah Stone	First Quality as per approved sample/ approved quarries
	Black Cuddapah	First Quality as per approved sample/ approved quarries
	Jaiselmer Stone	First Quality as per approved sample/ approved quarries
<b>35</b>	<b>Plumbing</b>	
	GI Pipes and fittings	Jindal steel or equivalent
	CPVC pipe and fittings	Supreme , Astral or equivalent
	Plumbing fixture	Jaquar or equivalent
	Sanitary fixture	Jaquar, Hindware or equivalent

**PH WORKS:- PART B List of Recommended Makes**

<b>SN</b>	<b>Description of items</b>	<b>Recommended manufacturers</b>
1	Sanitarywares:-Vitreous Chinaware Water Closet, Flush tank, Wash Basin, Urinals, Shower Tray, Sink, Cisterns	Hindware, Cera, Parryware, Neycer, Roca, Toto, Kohler
	Seat & cover for EWC	Hindware, Cera, Parryware, Neycer, Roca, Toto Commander, Hindustan, Capri, Supreme
	PVC flushing Cistern	Hindware, Cera, Parryware, Neycer, Roca, Toto Commander, Hindustan, Duralite
2	CP brass fittings & fixtures such as Bib tap, Stop cock, Pillar tap, flush valve, Pressmatic Tap, Health Faucet, Wall Mixer, Shower, waste coupling, Bottle Trap, Toilet paper roll holder, Soap Dish Holder, Towel Rail, Soap Dispenser, braided hose, etc.	Jaquar, Roca, Toto, GEM, Techno, Kingston, Metro, Plato, JAL, Kohler
3	CP brass Jet Spray Set ( butterfly spray)	ESSCO- Jaquar, Plumber, Plato
4	Glass Mirror	Modi Guard, Saint Gobain Float Glass India Ltd., Eagle, Asahi(IAG)
5	Stainless steel Sink	Nirali, Neelkanth, AMC, Jayna , Diamond, Parryware
6	G.I / M.S Pipes	TATA, Zenith, Ambika, Surya, Khandelwal, Jindal, Hissar
7	G.I Malleable fittings	MJM, Unik, Zoloto, 'R' brand
8	PP-R pipes, Fittings, PP-R Ball Valves	M/s. Supreme Industries Ltd., M/s Prince Pipes & Fittings Pvt. Ltd., Kisan
9	cPVC pipes, Fittings, cPVC Ball Valves	M/s. Supreme Industries Ltd., M/s Prince Pipes & Fittings Pvt. Ltd., M/s.Astral ( Astral Poly Technik Ltd.), M/s. Ashirvad pipes (P)

		Ltd., M/s. Ajay Industrial Corporation Ltd., M/s. Jain Irrigation,
10	ASTM non-treaded UPVC solvent welded pipes fittings & ball valve	AquaGold of M/s. Supreme Industries Ltd., EASYFIT of M/s Prince Pipes & Fittings Pvt. Ltd., M/s. Jain Irrigation Systems Ltd., M/s. Kisan, M/s. Astral (Astral Poly Technik Ltd.),M/s. Ashirvad pipes (P) Ltd., M/s. Ajay Industrial Corporation Ltd.
11	SWR-UPVC pipe & fittings (including low noise drainage pipe system), uPVC Gully trap	M/s. Supreme Industries Ltd., M/s Prince Pipes & Fittings Pvt. Ltd., B-Sure of M/s. Jain Irrigation Systems Ltd., Finolex, M/s.Astral (Astral Poly Technik Ltd.),M/s. Ashirvad pipes (P) Ltd., M/s. Ajay Industrial Corporation Ltd.
12	uPVC pipes conforming to IS:4985 & Fittings conforming to IS	Premium, M/s. Supreme Industries Ltd., M/s Prince Pipes & Fittings Pvt. Ltd., M/s. Jain Irrigation Systems Ltd., Finolex ,M/s.Astral (Astral Poly Technik Ltd.), M/s. Ashirvad pipes (P) Ltd., M/s. Ajay Industrial Corporation Ltd.
13	uPVC Bore Well casing pipe conforming to IS:12818	M/s. Supreme Industries Ltd., M/s Prince Pipes & Fittings Pvt. Ltd., M/s. Jain Irrigation Systems Ltd., Finolex ,M/s.Astral (Astral Poly Technik Ltd.), M/s. Ashirvad pipes (P) Ltd., M/s. Ajay Industrial Corporation Ltd.
14	PVC Column pipe and Accessories	M/s. Supreme Industries Ltd., M/s Prince Pipes & Fittings Pvt. Ltd., M/s. Jain Irrigation Systems Ltd., Finolex ,M/s.Astral (Astral Poly Technik Ltd.), M/s. Ashirvad pipes (P) Ltd., M/s. Ajay Industrial Corporation Ltd.
15	HDPE sheet flashing	M/s. SANGIR Plastics Ltd., M/s. Jain Irrigation Systems Ltd., M/s. Supreme Industries Ltd. or approved eq.
16	UPVC underground drainage pipes & Fittings conforming to IS:15328	M/s. Supreme Industries Ltd., M/s Prince Pipes & Fittings Pvt. Ltd., M/s. Jain Irrigation Systems Ltd., Finolex ,M/s.Astral (Astral Poly Technik Ltd.), M/s. Ashirvad pipes (P) Ltd., M/s. Ajay Industrial Corporation Ltd.
17	uPVC / PE Inspection / Manhole Chambers & Accessories	M/s. Supreme Industries Ltd. M/s.Astral (Astral Poly Technik Ltd.), M/s. Ashirvad pipes (P) Ltd., or as approved equivalent.
18	uPVC Spiral Suction Hose Pipes	M/s. Kisan, or as approved equivalent.
19	Polyethylene water storage tank	Sintex, Caveri, Supreme, Raunaq, Patton.
20	GM or Copper alloy Gate /Peet / Globe / Check valve	Neta, Sant, Kingston, Leader, Zoloto, GG., Hawa
21	Ball Valve	Techno, MBM, Sant, Zoloto.

22	CI/DI Air Valve / Kinetic Air Valve	IVC, Durga, Mayur, Leader, Sant, Hawa, Kirloskar, Kartar, Upadhyay.
23	Filters, Sand Separator (Hydrocyclone filter), Plastic Air Valve, Plastic Valve Box	M/s. Jain Irrigation Systems Ltd. or as approved equivalent.
24	Bobbin Wound filter including filter media,	M/s. Astralpool. or as approved equivalent.
25	GRP/ FRP composite Manhole Covers and Gratings, FRP Mesh Gratings	M/s. Everlast Composites Pvt. Ltd. M/s. HP Adhesives Limited- HP International, Thermodrain of M/s. Thermoset Poly Products(I) Pvt. Ltd.
26	copolymer polypropylene steel reinforced plastic Foot-rests	M/s. Patel brand, M/s. Shree Vinayak Enterprise or as approved equivalent.
27	CI/DI Sluice valve, NRV, Butterfly Valve	Upadhyay, IVC, Durga, Mayur, Minoti, Kejrival Castings., Leader, Sant, Hawa, Kirloskar, Kartar
28	CI/DI Foot valve ( swing & lift type )	Mayur, Upadhyay, Minoti, Kartar, KPM, IVC, Leader, Durga, Kartar
29	C.I Water quality pipes	Electrosteel, KDUL, Truform
30	C.I Soil quality pipes	Neco, KDUL, SKF by Singhal Iron Foundry (P) Ltd,
31	CI/DI Frame & Cover	Neco, Kajeco, Kejrival Castings Ltd. or as approved equivalent.
32	S.W Pipe & Gully Trap	Perfect or as approved equivalent.
33	RCC Hume pipe	The Indian Hume Pipe, M/s Pranali, M/s West Bengal Concrete Industries, Kolkata, M/s Sur Industries, Kolkata.
34	SFRC frame & cover & Gratings.	SS, KK or as approved equivalent.
35	HDPE Pipe & fittings	Goutam, M/s. SANGIR Plastics Ltd., M/s. Jain Irrigation Systems Ltd., M/s. Supreme Industries Ltd., M/s Prince Pipes & Fittings Pvt. Ltd
36	uPVC Foot Valve	M/s. Jain Irrigation Systems Ltd. or as approved equivalent.
37	SBR / EPDM Gaskets	Prabhat, Orient or as approved equivalent.
38	C.I fittings / Specials	Kejrival, Orient, Durga, Upadyay
39	Float Valve	Leader, Sant, Zoloto or as approved equivalent.
40	Anticorrosive tape for pipe protection	Pypekote, or as approved equivalent.
41	Garden irrigation system	M/s. Jain Irrigation Systems Ltd., M/s. Supreme Industries Ltd. M/s. Kisan Mouldings Limited, M/s. Kisan Irrigations Limited.
42	Cockroach trap	Chilly, Nirali or as approved equivalent.
43	Pumps & Pump sets	Grundfos, KSB, Kirloskar, Mather & Platt, Becon, Crompton Greaves, Calama, sehra
44	Dosing Pumps	Grundfos, Astralpool, KSB, Kirloskar
45	Suction Strainer	Leader, Sant, Zoloto or as approved equivalent.
46	Ductile iron Pipe	Electrosteel, JindalSAW, Electrotherm, TATA

47	Ductile iron Specials / Fittings	Electrosteel, Kejriwal, Truform, JindalSAW,
48	RCC frame, covers	Pratibha, Bharat, Vikrant, Supertile, Basant Beaton
49	Precast RCC SWD, Manholes	M/s Godrej Construction, M/s Siddhivinayak Precast Pipes pvt ltd., M/s Fuji Silvertch concrete pvt ltd
50	Rainy Filter	M/s. Farmland Rainwater Harvesting System or as approved equivalent.
51	V-wire screen	M/s. Johnson Screens (India) Private Limited. M/s. Apollo Screens Private Limited. M/s. Farmland Rainwater Harvesting System or as approved equivalent.
52	Filter Grade Geosyntetic Fabric / Geotextile	M/s. Techfab India Industries limited, M/s. Garware Technical Fibers Ltd. or as approved equivalent.
53	Pig Lead	Hindustan Zinc or as approved equivalent.

**THEORETICAL STANDARD REQUIREMENT OF CEMENT FOR VARIOUS ITEMS OF WORK**

S.NO.	BRIEF DESCRIPTION OF ITEM	UNIT	CEMENT IN BAGS
1	Cement Concrete 1:5:10	Cum	2.60
2	Cement Concrete 1:4:8	Cum	3.40
3	Cement Concrete 1:3:6	Cum.	4.40*
4	Cement Concrete 1:2:4	Cum	6.40*
5	Reinforced Cement Concrete 1:2:4	Cum	6.40*
6	Reinforced Cement Concrete 1:1.5:3	Cum.	8.00*
7	Reinforced Cement Concrete 1:1:2	Cum	12.20*
* Note : For controlled concrete items like M-10, M-15, M-20, M-25 etc., the consumption of cement will have to be assessed by the Engr-in-Charge on the basis of design mixes approved for individual work.			
8	Brick masonry in C.M. 1:4	Cum.	1.90
9	Brick masonry in C.M. 1:6	Cum	1.25
10	Half brick masonry in C.M. 1:4 with RCC 1:2:4 stiffeners	Sqm.	0.27
11	Half brick masonry in C.M. 1:4	Sqm	0.21
12.(a)	R.R. Masonry in C.M. 1:6	Cum.	1.65
12.(b)	C.R. Masonry in C.M. 1:6	Cum.	1.56
13.	IPS Flooring (C.C. 1:2:4, finished smooth)		
(a)	30mm. thick	Sqm	0.24
(b)	40mm. thick (smooth/broom finish)	Sqm	0.34
(c)	50mm. thick	Sqm	0.42
14	Hardonate flooring -50mm. thick (C.C. 1:2:4, finished smooth)	Sqm.	0.42
15	Kota stone:		
(a)	Flooring (with cement mortar 1:4 bedding 20mm thick pointed with matching cement slurry)	Sqm	0.35
(b)	Skirting with 12mm. thick C.M. 1:3 backing	Sqm	0.28
(c)	Coping	Sqm.	0.15
16(a)	Ceramic/Vitrified tile flooring and dado over 20mm. C.M.1:4 bedding	Sqm	0.35
16(b)	Ceramic/Vitrified tile dado over 12mm. C.M.1:3 backing	Sqm	0.28
17	Cement tile :		
(a)	Flooring (cement mortar 1:4, 20mm bedding).	Sqm	0.35
(b)	skirting with 12mm thick C.M. 1:3 backing	Sqm	0.28
18	Granite/ Marble		
(a)	Flooring (with cement bedding 1:4, 20mm thick)	Sqm	0.35
(b)	Skirting	Sqm	0.27
19	Additional thickness of base mortar in flooring over 20mm for every 10mm in CM 1:4	Sqm	0.09
20.	Cuddapah stone kitchen platform over 20mm. thick C.M. 1:4	Sqm	0.30
21	Cuddapah stone window sill over 20mm. thick C.M. 1:4	Sqm	0.27
	Plaster Skirting, 20mm thick in CM 1:3	Sqm	0.30
22	Fixing hold fasts in CC 1:3:6 of size 300x100x150 mm. for doors & windows	100 Nos	2.20
23	Cement Plaster in C.M. 1:4/1:5 without cement punning.		
(A)	Cement Mortar 1:4		
(a)	6mm. thick	Sqm	0.06
(b)	12 mm. thick	Sqm	0.11
(c)	15 mm. thick	Sqm	0.13
(d)	20 mm. thick.	Sqm	0.17

S.NO.	BRIEF DESCRIPTION OF ITEM	UNIT	CEMENT IN BAGS
(B)	Cement Mortar 1:5		
(a)	12 mm. thick	Sqm	0.09
(b)	15 mm. thick	Sqm	0.11
(c)	20 mm. thick	Sqm	0.14
24.	Cement plaster in C.M. 1:4 in two coats with neat cement punning		
(a)	15 mm. thick.(10mm + 5mm)	Sqm	0.18
(b)	20 mm. thick.(15mm + 5mm)	Sqm	0.22
25	Cement plaster in C.M. 1:4, 20mm. thick rough finish (for external brick/concrete surfaces)	Sqm.	0.17
26.	Sand faced plaster, 20mm. thick in 2 coats (10mm each in C.M. 1:4 )	Sqm	0.21
27.	Rough cast plaster, 25 mm thick (12mm C.M. 1:4 + 13 mm C.M.1:3)	Sqm	0.27
28.	(+) 10 mm wide & 18 mm thick plain or moulded cement mortar band in CM 1:4	100 R.M	0.152
29.	Cement plaster in C.M. 1:3 finished smooth with neat cement		
(a)	12mm. thick	Sqm	0.19
(b)	15mm thick	Sqm	0.22
(b)	20mm. thick	Sqm	0.27
30.	Cement pointing in C.M. 1:3		
(a)	Ruled pointing (groove pointing)	Sqm	0.02
(b)	Raised & cut pointing	Sqm	0.04
(c)	Flush pointing	Sqm	0.02
31.	Cement based waterproofing works (Through the agency approved by the Department)		
(a)	i)Cement based brick bat waterproofing (terrace) average 115 mm. thick	Sqm	0.72
	ii) Cement based brick bat waterproofing (sunshade,balcony) average 65 mm. thick	Sqm	0.50
(b)	Basement type (Box type)-horizontal surface	Sqm	0.68
(c)	Basement type- (Box type)-vertical surface	Sqm	0.89
(d)	In sunken floor of toilets, chajjas, parapets	Sqm	0.32
(e)	Brickbat coba in toilets, extra in roof terrace	Cum	3.10
(f)	O.H. Water tanks	Sqm	0.50
(g)	Expansion joints.	R.M	0.50
32.	Damp proof course in C.C. 1:2:4		
(a)	25mm. thick	Sqm	0.16
(b)	38mm. thick	Sqm	0.24
33.	Laying R.C.C. spun pipes in C.M. 1:1/1:2		
(a)	100 mm dia.	10m	0.10
(b)	150 mm dia	10m	0.12
(c)	250 mm dia.	10m	0.18
(d)	300 mm dia	10m	0.22
(e)	450 mm dia	10m	0.48
(f)	600 mm dia	10m	0.64
(g)	900 mm dia	10m	0.98
(h)	1200 mm dia	10m	1.36
34.	Cement mortar 1:4 screed		
(a)	20mm. thick	Sqm	0.16
(b)	50mm. thick	Sqm	0.38

35.	Chain link fencing/barbed wire fencing - C.C. 1:2:4 pockets of 450x450x600mm		
(a)	Angle iron posts	m	0.21
(b)	Cement Concrete 1:2:4 posts	m	0.37
<b>S.NO.</b>	<b>BRIEF DESCRIPTION OF ITEM</b>	<b>UNIT</b>	<b>CEMENT IN BAGS</b>
36	Kerb stone in CC 1:3:6 of size 125x375mm	m.	0.21
37	Shahabad stone paving, pointed in C.M.1:3, 15x10 mm groove.	Sqm	0.02
38	Pointing & grouting stone pitching in C.M. 1:3	Sqm	0.14
39	Solid Block Masonary/Siporex in C.M.1:4	Cum	1.04
40	Fixing heat reflective tile( China mosaic) on roof with C.M1:4	Sqm	0.27
41	Fixing Pressed Clay (Mangalore) tile on roof jointed with C.M1:4	Sqm	0.20

## CONSUMPTION OF PAINT FOR SOME PAINTING ITEMS

Coverage Achieved Per Litre or Per Kg of Paint / Material				
Sl. No.	Name of Paint	Area coverage for one coat (Old work)	Area coverage For two coats (New Work)	Area coverage Per addl. coat
1	Synthetic enamel paint	14m <sup>2</sup> per Ltr.	8.5m <sup>2</sup> per Ltr.	18m <sup>2</sup> per Ltr.
2	Plastic emulsion paint	14m <sup>2</sup> per Ltr.	8.5m <sup>2</sup> per Ltr.	18m <sup>2</sup> per Ltr.
3	Oil Bound distemper	10m <sup>2</sup> per Ltr.	6.0m <sup>2</sup> per Ltr.	12m <sup>2</sup> per Ltr.
4	Dry Distemper	10m <sup>2</sup> per kg	6.5 m <sup>2</sup> per kg	12 m <sup>2</sup> per kg
5	White wash	5m <sup>2</sup> /kg of lime	3.5m <sup>2</sup> /kg of lime	10 m <sup>2</sup> /kg of lime
Note : Following things to be added in lime (i) Adhesive (DDL/SDL) – 5% of lime (ii) Neel (Blue) – 3 gm per kg of lime (iii) Water – 5 kg of water per kg of lime				
6	Cement based paint	4.5 m <sup>2</sup> per kg	2 m <sup>2</sup> per kg	6 m <sup>2</sup> per kg
7	Aluminium paint	20m <sup>2</sup> per Ltr.	12.5 m <sup>2</sup> / Ltr.	28 m <sup>2</sup> per Ltr.
8	Bitumen Paint/Black Japan	14 m <sup>2</sup> per Ltr.	14 m <sup>2</sup> per Ltr.	28 m <sup>2</sup> per Ltr.
9	Neeru (or lime punning with slacked lime) over plaster	0.5 m <sup>2</sup> per kg of slacked lime		
10	Red oxide metal primer	16 m <sup>2</sup> per Ltr.		
11	Cement primer	12 m <sup>2</sup> per Ltr.		
12	Wood primer	13 m <sup>2</sup> per Ltr.		
13	Wax polishing of new wood work with ready made polish	20m <sup>2</sup> per kg	20m <sup>2</sup> per kg	20m <sup>2</sup> per kg
14	French or spirit polish	10.5 m <sup>2</sup> / Ltr.		
15	Varnish	14 m <sup>2</sup> per Ltr.	8.5 m <sup>2</sup> per Ltr.	18 m <sup>2</sup> per Ltr.
16	Requirement of paint per coat in Structural steel work on tonnage basis. (i) Truss and Lattice girder work – 4.5 litres per tonne. (ii) Plane Beam/plane girder work – 2.5 litres per tonne			

**CO-EFFICIENT FOR EQUIVALENT PLAIN AREAS FOR  
PAINTING ITEMS: (PARA REFERRED TO  
CHAPTER 42 - PAINTING)**

SN	DESCRIPTION OF WORK	MULTIPLYIN CO-EFFICIENTS
<b>I. WOOD WORK : DOORS, WINDOWS ETC.</b>		
1	Panelled or framed and braced doors, windows etc.	1.30 (for each side)
2	Ledged & battened or ledged, battened & braced doors, windows etc.	1.20 (for each side)
3	Flush doors etc	1.00 (for each side)
4	Part panelled and part glazed or gauzed doors, windows etc.	0.80 (for each side)
5	Fully glazed or gauzed doors, windows etc.	1.80 (for each side)
6	Fully venetioned or louvered doors, windows etc.	2.00 (for painting all over)
7	Trellis (or Jaffri) work one way or two way.	2.00 (for each side)
8	Carved or enriched work:	1.20 (for each side)
9	Weather boarding:	1.10 (for each side)
10	Wood shingle roofing:	1.05 (for each side)
11	Boarding with cover fillets and match boarding.	0.80 (for painting all over)
12	Tile and slate battening:	
<b>II. STEEL WORK: DOORS, WINDOWS ETC.</b>		
13	Plain sheeted steel door or windows:	1.10 (for each side)
14	Fully glazed or gauzed steel doors and windows	0.50 (for each side)
15	Partly panelled and partly gauzed or glazed doors and windows.	0.80 (for each side)
16	Corrugated sheeted steel doors or windows.	1.25 (for each side)
17	Collapsible gates	1.50 (for painting all over)
18	Rolling shutters of inter locked laths.	1.10 (for each side)
<b>III. GENERAL WORKS :</b>		
19	Expanded metal, hard drawn steel wire fabric of approved quality, grillwork and gratings in guard bars, balusters, railings, partitions and m.s. bars in window frames.	1.00 (for painting all over)
20	Open palisade fencing and gates including standards, braces, rails, stays etc. in timber or steel.	1.00 (for painting all over)
<b>NOTE:</b> The height shall be taken from the bottom of the lowest rail, if the palisades do not go below it (or from the lower end of palisades, if they project below the lowest rail) upto the top of palisades but not upto the top of standards, if they are higher than the palisades.		
21	Corrugated iron sheeting in roofs, side cladding etc.	1.14 (for each side)
22	A.C. Corrugated sheeting in roofs, side cladding etc.	1.20 (for each side)
23	A.C. Semi-corrugated sheeting in roofs, side cladding etc. or Nainital pattern using plain sheets.	1.10 (for each side)
24	Wire gauze shutters including painting of wire gauze.	1.00 (for each side).

## **SECTION – 11**

### **Safety Guidelines**

For the safety of all labour directly or indirectly employed in the work the contractors shall, in addition to the provision of safety code and directions of the Engineer-in-Charge, make all arrangements to provide facility as per the provision of Indian Standard Specifications (Codes) listed below & nothing extra shall be paid on this account.

- |    |                 |   |
|----|-----------------|---|
| 1. | IS 3696 Part I  | Safety Code for scaffolds and ladders.                      |
| 2. | IS 3696 Part II | Safety Code for scaffolds and ladders Part II ladders.      |
| 3. | IS 764          | Safety Code for excavation work.                            |
| 4. | IS 4138         | Safety Code for working in compressed air.                  |
| 5. | IS 7293         | Safety Code for working with construction machinery.        |
| 6. | IS 7969         | Safety Code for storage and handling of building materials. |
| 7. | IS 4130         | Safety code for demolition of buildings.                    |

#### **Contractor's commitment to safety:**

The commitment of the contractor's management to safety is critical because each contractor is in the best position to know how to attain improved safety performance. The contractor's management needs to ensure the following:

- To implement safe methods and practices, deploy appropriate machinery, tools & tackles, experienced supervisory personnel and skilled workforce etc. required for execution.
- To ensure that the only Indian nationals are employed for the work and employees deployed are physically and mentally fit. Such employees should possess requisite skill, qualification, experience etc.
- To ensure that the background of the individual employee is verified before employing them.
- To deploy qualified & trained safety supervisor / safety engineers / safety manager reporting to the site in charge, for supervision, co-ordination and liaison for the implementation of the safety plan.
- To ensure that its employees have completed appropriate health and safety training as required. The documentation of such training imparted to all its employees should be maintained and produced for verification as required.
- To obtain all necessary licenses, permits, insurance policy of his employees and / or approvals before performing any work. A copy of the same shall be submitted to Department.

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- To ensure that all the employees and those of sub-contractors have sufficient information, instruction, training and competence to enable them to carry out safely the work specified in the contract.
- To comply with all the security arrangements of Department.
- To ensure that the plant and equipment used on-site by him / his employees is correctly registered, controlled and maintained in sound working condition. To ensure that all incidents including near misses are reported to all concerned immediately.
- To provide personal protective equipment's required for the job and first-aid kits at work.
- To provide uniform safety gadgets for employees, whenever work is carried out in existing facility for easy identification.
- To maintain appropriate records of his employees deployed to carry-out the job. To ensure that all incidents including near misses are reported to all concerned immediately.
- To provide personal protective equipment's required for the job and first-aid kits at work.
- To provide uniform safety gadgets for employees, whenever work is carried out in existing facility for easy identification.
- To maintain appropriate records of his employees deployed to carryout the job.

**Contractor's Safety Officer / Job Supervisor:**

The duties & responsibilities of the Contractor's Safety Officer/ job supervisor shall include the following:

- To assess the hazards associated with jobs in consultation with all concerned and establish safe working procedure.
- To establish a written record of factors which can cause injuries and illness.
- To ensure strict compliance with work permit system by carrying out work only with appropriate work permits and after ensuring that all safety precautions / conditions in the permit are complied with and closing the same after the completion of the contract.
- To undertake routine / surprise inspections of all work sites and identify and correct unsafe conditions & practices, if any.

- To check whether the proposed working arrangements are safe and satisfactory, particularly at the interface between contractor's planned work and Department's existing facilities.
- To ensure that required guards and protective equipment are provided, used, and properly maintained.
- To ensure that the workers understand the work to be done, the hazards that may be encountered, and the proper precautions/procedure for carrying out the work safely.
- To take immediate action to correct any violation of safety rules observed or reported.
- To ensure that the workers likely to be exposed to hazardous chemicals/materials have access to appropriate Material Safety Data Sheets (MSDS), wherever applicable, and provide necessary mitigation measures.
- To ensure that appropriate warning signboards or tags are displayed.
- To ensure that workers have proper training for their job assignments, including use of appropriate PPE.
- To report each incident and/or injury in accordance with established procedures and assist in investigation.
- To conduct daily inspections to ensure compliance with safety standards, codes, regulations, rules and orders applicable to the work concerned.
- To arrange tool box meeting periodically (preferably daily) and shall continue this process to make workmen safety conscious.
- To keep a constant liaison with Engineer-in-charge / Department's representative on safety issues.
- To maintain accident and near miss record in a register.

### **Contractor's employees**

The duties & responsibilities of the contractor's employee should include the following

- To perform work safely as per the job requirement and instructions.
- To inform all concerned regarding unsafe conditions/acts.
- To wear PPE as stipulated and necessary for the job.
- To inform promptly to their supervisor regarding all work-related incidents
- resulting in personal injury, illness and/or property damage.

- To take all necessary and appropriate safety precautions to protect themselves, other personnel and the environment.

### **Specific safety provisions to be observed by the contractors**

A.1 Scaffolding Accidents are also caused by the ladders falling or the climber losing his balance or failure of scaffolds. As such, utmost care should be taken as ladder and scaffolding are extensively used for maintenance and construction purpose. Some of the safe practices as listed below are to be observed before commencement of work.

A.1.1 Adequate and safe means of access and exit shall be provided for all work places, at all elevations. Using of scaffolding members (avoiding a ladder) for approach to high elevations shall not be permitted.

A.1.2 Suitable scaffolds shall be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except such short duration work as can be done safely from ladders. Ladder shall be of rigid construction having sufficient strength for the intended loads and made either of good quality wood or metal and all ladders shall be maintained well for safe working condition.

A.1.3 Short ladder must not be tied together to give greater lengths. All ladders of 6 m or above should be tied to the structure on which they are resting to prevent from slipping. An extra worker shall be engaged for holding the ladder if ladder is not securely fixed. If the ladder is used for carrying materials, suitable foot holds and handholds shall be provided on the ladder. The ladder shall be given an inclination not steeper than 1 in 4 (1 horizontal and 4 vertical). Ladders shall not be used for climbing carrying materials in hands. While climbing both the hands shall not be free.

A.1.4 The free length must extend by 1.5 meters above the point of landing but should not be more than 1/4th of the ladder length. No portable single ladder shall be over 9 meter in length. Metal ladders may not be used for electrical work.

A.1.5 Scaffolding or staging more than 3.5 m above the ground or floor, swung or suspended from an overhead support or erected with stationary support shall have a standard guard rail properly attached, bolted, braced or otherwise secured at least 1.0 m high above the floor or platform of such scaffolding or staging. The guard rail shall extend along the entire exposed length of the scaffolding with only such opening as may be necessary for the delivery of materials. Standard railing shall have posts not more than 2 m apart and an intermediate rail halfway between the floor or platform of the scaffolding and the top rail. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure. Scaffolding and ladder shall conform to relevant IS specification (IS: 3696). Timber/Bamboo scaffolding shall not be used.

A.1.6 Working platforms of scaffolds shall have toe boards at least 15 cm in height to prevent materials from falling down.

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A.1.7 Every member of scaffolding must be of sound construction. Steel planks used in scaffolds should be carefully inspected and should be tied on both sides with suitable fixing arrangements to the pipes. Scaffolding must not be overloaded.

A.1.8 The Steel pipe & clamp to be used must be of good quality. The spacing between the vertical & horizontal members of the scaffolding should not be more than 1.5m and 1 meter respectively. The scaffolding should be further strengthened with cross bracing and stays.

A.1.9 The scaffolds should be provided with short climbs ladders for safe ascending / descending of workmen in the job. Only those workmen who are well trained / experienced in erecting scaffolding should be engaged for scaffolding work. The men working in the actual erection / dismantling of the scaffolding and all persons using the scaffolding must use suitable PPEs.

A.1.10 A sketch of the scaffolding proposed to be used shall be prepared and approved by the Engineer-in charge, prior to start of erection of scaffolding. All scaffolds shall be examined by Engineer-In-Charge before use.

A.1.11 Working platform, gangways and stairways shall be so constructed that they shall not sag unduly or unequally and if the height of the platform or gangway or stairway is more than 3.5 m above ground level or floor level, they shall be closely boarded, shall have adequate width for easy movement of persons and materials and shall be suitably guarded.

A.1.12 The planks used for working platform shall not project beyond the end supports to a distance exceeding four times the thickness of the planks used. The planks shall be rigidly tied at both ends to prevent sliding and slippage. The thickness of the planks shall be adequate to take load of men and materials and shall not collapse.

A.1.13 Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent fall of persons or materials by providing suitable fencing or railing.

A.1.14 Safe means of access shall be provided to all working platforms and other elevated working places. Every ladder shall be securely fixed. No single portable ladder shall be over 9 m in length. For ladders up to 3m in length the width between side rails in the ladder shall in no case be less than 300 mm. For longer ladders this width shall be increased by at least 20 mm for each additional meter of length. Step spacing shall be uniform and shall not exceed 300 mm.

A.1.15 Adequate precautions shall be taken to prevent danger from electrical lines and equipment. No scaffolding, ladder, working platform, gangway runs, etc. shall exist within 3 meters of any uninsulated electric wire. Whenever electric power and lighting cables are required to run through (pass on) the scaffolding or electrical equipments are used, such scaffolding structures shall have minimum two earth connections with earth continuity conforming to IS Code of Practice.

## **A.2 Demolition**

Before any demolition work is commenced and also during the progress of the work:

A.2.1 All roads and open area adjacent to the work site shall either be closed or suitably protected. Appropriate warning signs shall be displayed for cautioning approaching persons.

A.4.2 Before demolition operations begin, the Contractor shall ensure that the power on all electric service lines is shut off and the lines cut or disconnected at or outside the demolition site. If it is necessary to maintain electric power during demolition operation, the required service lines shall be adequately protected against damage. Persons handling heavy materials /Equipments shall wear safety shoes.

A.4.3 No floor, roof or other part of the building shall be overloaded with debris or materials as to render it unsafe.

A.4.4 Entries to the demolition area shall be restricted to authorised persons only.

## **B. Welding and Gas Cutting**

- Welding and gas cutting operations shall be done only by qualified and authorised persons and as per IS specifications and Code of Practice.
- Welding and gas cutting shall not be carried out in places where flammable or combustible materials are kept and where there is danger of explosion due to presence of gaseous mixtures.
- Welding and gas cutting equipment including hoses and cables shall be maintained in good condition.
- Barriers shall be erected to protect other persons from harmful rays from the work. When welding or gas cutting is in elevated positions, precautions shall be taken to prevent sparks or hot metal falling on persons or flammable materials. Adequate ventilation shall be provided while welding in confined space.
- Suitable type of protective clothing consisting of fire-resistant gauntlet gloves, leggings, boots and aprons shall be provided to workers as protection from heat and hot metal splashes. Welding shields with filter glasses of appropriate shade shall be worn as face protection.
- Welding and gas cutting shall not be done on drums, barrels, tanks or other containers unless they have been emptied, cleaned thoroughly and it is made certain that no flammable material is present.
- Fire extinguisher shall be available near the location of welding operations. Fire Safety Permit shall be obtained for working at vulnerable areas and operating areas before flame cutting/welding is taken up.

- Tarpaulin, if used should be of fire retardant.

For electric (Arc) welding the following additional safety precautions shall be taken:

- When electrical welding is undertaken near pipe lines carrying flammables, such pipe lines shall not be used as part of earth conductor but a separate earth conductor shall be connected to the machine directly from the job.
- Personnel contact with the electrode or other live parts of electric welding equipment shall be avoided.
- Extreme caution shall be exercised to prevent accidental contact of electrodes with ground.
- The cylinders containing poisonous / toxic or inflammable / explosive gas like Oxygen, Acetylene, Hydrogen, Ammonia, Chlorine, CO2 etc shall be handled safely taking due cares. To handle / shift such cylinders a special trolley / cage meant for it must be used but in no case it should be rolled.
- No domestic LPG cylinder is allowed for Hot Work such as Gas Welding / Gas Cutting.
- A person must remain in the area for a minimum period of 30 minutes after hot work is completed to ensure the site is safe. Welding machine shall be switched off after the completion of work.

### **C. Grinding**

- All portable grinders shall be used only with their wheel guards in position to reduce the danger from flying fragments should the wheel break during the use.
- Grinding wheels of specified diameter only shall be used on a grinder- portable or pedestal - in order not to exceed the prescribed peripheral speed.
- Goggles shall be used during grinding operation.

### **D. Painting**

- The Contractor shall not employ women on the work of painting with products containing lead in any form. Only men above the age of 18 years shall be employed on the work with lead paint.
- Smoking, open flames or sources of ignition shall not be allowed in places where paints and other flammable substances are stored, mixed or used. A caution board, with the instructions written in national/regional language, "SMOKING – STRICTLY PROHIBITED" shall be displayed in the vicinity where painting is in progress or where paints are stored.

- When painting work is done in a closed room or in a confined space, adequate ventilation shall be provided. If adequate ventilation cannot be provided, workers shall wear suitable respirators.
- Epoxy resins and their formulations used for painting shall not be allowed to come in contact with the skin. The workers shall use plastic gloves and/or suitable barrier creams.
- Workers shall thoroughly wash hands and feet before leaving the work. Work clothes shall be changed

### **E. Work related to maintenance of Machine**

Disconnect the electrical power before starting the mechanical maintenance of the

- machine.
- During the maintenance of machine, it should be doubly ensured that the machine does not move unexpectedly causing injury to the person involved.
- Foolproof lockout system or power lock off system should be followed. Power lock off system shall include the electrical power, energy stored in springs, suspended parts or any other potential power sources.
- A highly legible information plate should be kept near the machine under maintenance giving the details of work being carried-out, warning instructions etc., to enable the workers, supervisors or any visitors to keep away.
- Removal of such plates immediately after the maintenance, repair etc., shall be ensured.
- Instructions from the machine manufacturers service/installation book should be followed during maintenance of the equipment.
- Only trained personnel should be employed for carrying out maintenance, repair, adjustment etc.
- Identified tools should be used to carry out such works.
- Guards should be replaced immediately after the maintenance work.
- After mechanical maintenance, machine should be tested at no load condition only.
- Chips and debris must be swept up and properly disposed.

### **F. Electricity**

The following are provided for general guidance of the Contractor and shall be read as specific requirement, in addition to complying with Indian Electricity Act, Indian Electricity Rules and IS Specifications.

- Only qualified electricians familiar with code requirements are allowed to perform electrical work.
- Employees are not permitted to work near an unprotected electrical power circuit unless they are protected against electrical shock by de-energizing the circuit and grounding it, or are protected by effective insulation or other means, and are wearing required personal protective equipment.
- For purposes of electrical load and power planning, the contractor shall furnish, the estimated load requirement of electric power for the execution of the contract works in terms of maximum Kilo Watt or KVA demand during various periods/months along with the details of the electrical equipment/machinery with their individual load details and location/locations of power supply required for availing temporary electric power supply in the standard format.
- The electric power supply will be generally made available at one point in the works site of the contractor by the Department.
- All three phase equipment shall be provided with double earthing. All light fixtures and portable equipment shall be effectively earthed to main earthing.
- All earth terminals shall be visible. No gas pipes and water pipes shall be used for earth connection. Neutral conductor shall not be treated as earth wire.
- The Contractor shall not connect any additional load without prior permission of Department.
- Joints in earthing conductors shall be avoided. Loop earthing of equipment shall not be allowed. However, tappings from an earth bus may be done.
- Electrical equipment and installations shall be installed and maintained as to prevent danger from contact with live conductors and to prevent fires originating from electrical causes like short circuits, overheating etc. Installation shall not cause any hindrance to movement of men and materials.
- Materials for all electrical equipment shall be selected with regard to working voltage, load and working environment. Such equipment shall conform to the relevant standards.
- Electric fuses and/or circuit breakers installed in equipment circuits for short circuit protection shall be of proper rating. It is also recommended that high rupturing capacity (HRC) fuses be used in all circuits. For load of 5 KW or more earth leakage circuit breaker of proper rating shall be provided in the circuits.
- Wires and cables shall be properly supported and approved method of fixing shall be adopted. Cables shall not be left on floor/ground. Loose hanging of wires & cables shall be avoided. Lightning and power circuits shall be kept distinct and separate.

- Reinforcement rods or any metallic part of structure shall not be used for supporting wires and cables, fixtures, equipment, earthing etc.
- All cables and wires shall be adequately protected mechanically against damages. In case, the cable required to be laid underground, it shall be adequately protected by covering the same with bricks, Plain Cement Concrete (PCC), tile or any other approved means.
- All armored cables shall be properly terminated by using suitable cable glands. Multi-stranded conductor cables shall be connected by using cable lugs/ sockets. Cable lugs shall preferably be crimped. They shall be of proper size and shall correspond to the current rating and size of the cable. Twisted connections will not be allowed.
- All the Distribution Boards, Switch Fuse units, Bus bar chambers, ducts, cubicles etc. shall have MS enclosures and shall be dust, vermin and waterproof. The Distribution Boards, switches etc. shall be so fixed that they shall be easily accessible.
- The Contractor shall provide proper enclosures/covers of approved size and shape for protection of all switch boards, equipment etc. against rain.
- Isolating switches shall be provided close to equipment for easy disconnection of electrical equipment or conductors from the source of supply, when repair or maintenance work has to be done.
- Adequate working space shall be provided around electrical equipment, which requires adjustment or examination during operation.
- All connections to lighting fixtures, starters or other power supplies shall be provided with PVC insulated, PVC sheathed twin/three/four core wires to have better mechanical protection for preventing possible damage to equipment or injury to personnel. Taped joints shall not be allowed and the connections may be made in looping system. Electric starter of motors, Switches shall not be mounted on wooden boards. Only sheet steel mounting or iron framework shall be used.
- Only PVC insulated and PVC sheathed wires or armoured PVC insulated and sheathed cables shall be used for external power supply connections of temporary nature. Weatherproof rubber wires shall not be used for any temporary power supply connections. Taped joints in the wires shall not be used.
- Contractor shall ensure that power factor for their loads shall be maintained at 0.85. In case the power factor falls below 0.85, necessary capacitor units shall be provided by the contractor.
- All portable appliances shall be provided with three-core cable and three-pin plug. The third pin of the plug shall invariably be earthed. It shall be ensured that the metal part of the equipment shall be effectively earthed.