

INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

POWAI, MUMBAI - 400 076.

Office of Dean (IPS)

TENDER DOCUMENT

FOR

"Proposed Renovation of Prof. Karthikeyan Hariharan's Lab, S-216 and S-218, Second Floor, MEMS Dept. for Indian Institute of Technology Bombay within IITB campus Powai. Mumbai –400 076"

NIT NO: IITB/DEAN IPS/DC/Prof. Karthikeyan Hariharan's Lab /INT/2026 DATED: 13/08/2026

ENVELOPE II: Technical & Financial Bid

(To be submitted in Envelope No.2)

Envelope II (Volume I, II & III)

Tender Due Date

25/08/2026: 15.00 Hrs

Tender (Eligibility) Opening Date

25/08/2026: 15.00 Hrs

“Proposed Renovation of Prof. Karthikeyan Hariharan's Lab, S-216 and S-218, Second Floor, MEMS Dept. for Indian Institute of Technology Bombay within IITB campus Powai. Mumbai –400 076”

NIT NO: IITB/DEAN IPS/DC/Prof. Karthikeyan Hariharan's Lab /INT/2026 DATED: 13/08/2026

INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

ENVELOPE 2: Technical & Financial Bid

(To be submitted in Envelope 2)

CONTENTS

SR. NO.	PARTICULARS	PAGE NO.
1	NOITICE INVITING TENDER	4-10
2	ITEM RATE TENDER & CONTRACT FOR WORKS	11-13
3	GENERAL RULES & DIRECTIONS	14-17
4	CONDITIONS OF CONTRACT	18-21
5	CLAUSE OF CONTRACT	22-84
6	SAFETY CODE	85-90
7	MODEL RULES	91-96
8	CONTRACTOR'S LABOUR REGULATIONS	97-104
9	SPECIAL CONDITIONS OF CONTRACT	105-117
10	PROFORMA OF REGISTERS	118-133
11	FORM OF PERFORMANCE SECURITY- BANK GUARANTEE BOND	134-135
12	PROFORMA FOR BANK GUARANTEE FOR EMD	136-137
13	PROFORMA FOR GUARANTEE TO BE EXECUTED BY CONTRACTORS FOR STABILITY OF PILE FOUNDATION SYSTEM AGAINST RISK OF SETTLEMENT & OTHER TYPE OF DISTRESS TO THE BUILDING(S).	138-139
14	FORM OF AGREEMENT	139-140
15	PROFORMA OF SCHEDULES	142-150
16	LIST OF DRAWINGS	149
17	Make list	150-155
18	TIME SCHEDULE	158

INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

OFFICE OF DEAN IPS

Dean (IPS), on behalf of Director, IIT Bombay invites Tender in TWO BID SYSTEM for "Proposed Renovation of Prof. Karthikeyan Hariharan's Lab, S-216 and S-218, Second Floor, MEMS Dept. for Indian Institute of Technology Bombay within IITB campus Powai. Mumbai –400 076"

NIT NO: IITB/DEAN IPS/DC/Prof. Karthikeyan Hariharan's Lab /INT/2026 DATED: 13/08/2026

For Vendor registration, bid forms and other details can be obtained from the web

<https://portal.iitb.ac.in/vrp/index.jsp>

For Tender Online Submission Portal:

<https://ep.iitb.ac.in/irj/portal>

Completed tenders shall be submitted up to 13.00 HRS on 25.08.2026

Dean (IPS)

INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

Notice Inviting Tender

Name of Work: - Proposed Renovation of Prof. Karthikeyan Hariharan's Lab, S-216 and S-218, Second Floor, MEMS Dept. for Indian Institute of Technology Bombay within IITB campus Powai. Mumbai –400 076"

INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

Prequalification cum Tender

Notice Inviting Tender

NIT NO: IITB/DEAN IPS/DC/Prof. Karthikeyan Hariharan's Lab /INT/2026 DATED: 13/08/2026

Name of Work: - Proposed Renovation of Prof. Karthikeyan Hariharan's Lab, S-216 and S-218, Second Floor, MEMS Dept. for Indian Institute of Technology Bombay within IITB campus Powai. Mumbai –400 076"

Dean (IPS) on behalf of the Director- IITB, invites online Item rate bid from Contractors of repute in two bid system Envelope I: EMD & Documents related to Eligibility Criteria and Envelope II: Technical and Financial bid from eligible contractors for the following:

2. Criteria of eligibility for submission of bid documents.

09-06-2026 TENDER DOCUMENT –
CONDITIONS OF CONTRACT

The bidder should have satisfactorily completed the works as mentioned below during the last three years ending 30th March 2026: -

Three similar works each cost not less than **Rs. 6.4 lakh**, or two similar works each costing not less than **Rs. 9.5 Lakh** or, one similar work costing not less than **Rs. 12.75 Lakh**

And One work of any nature (either part of (i) above or a separate one) costing not less than **Rs. 12.75 Lakh** with any Central/State Government Department/Central Autonomous Body/ Public Sector or Private Sector Undertaking.

Similar work shall mean Civil, Renovation and interior work of residential / Commercial / Institutional building, including Interior Finishing work, Plumbing work, Electrical work, networking, carpentry.

The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to last date of receipt of applications for tenders.

Should have had average annual financial turnover of **Rs. 10 Lakh** on construction works during the last three years ending 30th March 2026. This should be duly audited by a Chartered Accountant.

Should not have incurred any loss in more than two years during the last five years ending 30th March 2026 duly certified and audited by the Chartered Accountant.

The bidder should have a solvency of **Rs.12.75 lakhs** certified by his banker.

The bidding capacity of the contractor should be equal to or more than the estimated cost of the work put to tender. The bidding capacity shall be worked out by the following formula:

Bidding Capacity = $[A \times N \times 2] - B$

Where,

A = Maximum value of construction works executed in any one year during the last five years ending 30th March 2026 considering the completed as well as works in progress.

N = Number of years prescribed for completion of work for which bids has been invited.

B = Value of existing commitments and ongoing works to be completed during the period of completion of work for which bids have been invited.

The works should have been executed either independently or as part of a major construction work."

All relevant information should be submitted in the required format as given in the following section 'Information and Instruction for Bidders'.

To become eligible for issue of bid, the bidders shall have to furnish an affidavit as under: -

I/We undertake and confirm that eligible similar work(s) has/have not been got executed through another contractor on back-to-back basis. Further that, if such a violation comes to the notice of Engineer-In-Charge, then I/We shall be debarred for tendering in IITB in future forever. Also, if such violation comes to

the notice of Engineer-in-charge before date of start of work, the Engineer-in-charge shall be free to forfeit the entire amount of Earnest Money Deposit / Performance Guarantee.

- a) Goods and service Tax (GST), Labour Cess and any other tax as applicable shall be borne by the Contractor himself. The Contractor quote his rates considering all such taxes.
3. Agreement shall be drawn with the successful bidder in prescribed form attached in the Condition of Contract. Bidder shall quote his rates as per various terms and conditions of the "Conditions of Contract" which will form part of the agreement.
4. The time allowed for carrying out the work will be 6(Six) months from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.
5. The site of work is available.
6. Bid documents consisting of Envelope I- EMD and Eligibility Criteria & Envelope II-Volume I -Contract conditions, Volume II – Technical Specifications – Civil interior & services including electrical, (including List of Approved Makes), Volume III–Bill of Quantities and drawings are to be downloaded from portal <https://www.iitb.ac.in/resources/vendors-tenders> and from IITB website from <https://www.iitb.ac.in/deanpl/tender.html> 13/08/2026 to 25/08/2026
7. Those Contractors who are not registered on the website <https://portal.iitb.ac.in/vrp/index.jsp>, are required to get registered themselves beforehand. If needed they can be imparted training on online tendering process as per details available on the website. The intending bidder must have valid class-III digital Signature to submit the bid.
8. Contractor can upload documents in the form of PDF Format (all documents from one part/ volume to be compiled into single PDF)
9. Financial Bid can only be opened after submission of Earnest Money of Rs. **31895/-** as per the terms & condition of contract shall be drawn in favour of Registrar Indian Institute of Technology, Bombay, payable at Mumbai, and receipts should have been deposited to IITB by bidders in Envelope I along with the eligibility documents.

Intended bidders please note that, along with online submission of the all-tender documents. An undertaking stating that all the tender documents are read and understood by the bidder duly stamped & signed by the bidder in token of acceptance of the contents, conditions and the documents.

Bidders will submit the bid online as well as download the documents and submit the Eligibility documents, financial bids and undertaking in hard copy.

1. Application supported by prescribed annexure in two bid tender Envelope-I & -Envelope II shall be placed in separate sealed envelopes each marked as - Envelope-1: EMD & Eligibility Documents. Envelope-2: Technical Bid & Financial bid respectively- Envelope I & Envelope II in turn shall be submitted in another sealed envelope with the name of work written on the envelope - **To Dean IPS, Design Cell, 3rd Floor, Main Building, Next to PRO office, IIT Bombay, Powai, Mumbai 400076, Contact no-022 25767012** The bids will be received up to 1.00 PM on 25th **Augst 2026**. The envelopes Marked" EMD", "Eligibility Documents" shall be opened by **Dean I.P.S.** or his authorized representative in his office on the same day at 3.30PM. The time and date of opening of technical bid & financial bid shall be communicated at a later date.
2. With regards to opening of the Envelope II- "Technical bid & Financial bids", the bidder who fulfill the prequalification criteria described for both the Parts, decision regarding opening of Envelope-II shall be taken after the scrutiny for determining the L-1 bid.
- ~~3. Pre Bid meeting shall be held at Design cell office, 3rd Floor, Main Building, IIT Bombay, Powai, Mumbai 400 076 at **15.30 A.M.** on **11th June 2026** to clear the doubt of~~
4. intending tenderers, if any.
5. The department reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criterion.

11A. Envelope I –EMD & Documents related to Eligibility Criteria as per the format along with the forms A to I duly filled and **submitted in hard copies** along with online submission.

11B. Envelope II – Technical and Financial Bid - Consists of Three volumes (Volume I, II, and III)

Volume I

- a) Covering Letter from the tenderer submitting the tender.
- b) Notice inviting the tender including information and instructions to the Bidder.
- c) Item Rate Tender & Contract for works.
- d) Conditions of contract and Proforma of Schedules – Schedule 'A' to 'F'
- e) Statement of Queries raised & clarification offered during pre-bid meeting.

Volume II

Civil Interior & services including Electrical, etc.

(Specifications, drawings and list of approved makes)

Volume III

“Financial Bid” shall contain “Bill of Quantities-B.O.Q.” duly filled in with rates (in figures & words) and amounts quoted. Each page of the B.O.Q. shall be Signed and stamped by the tenderers and PDF copies of the same to be uploaded.

12. The contractor whose bid is accepted will be required to deposit performance guarantee equal to 5% (Five percent) of the bid amount within the period specified in Schedule “F”. This guarantee shall be in the form of an irrevocable Bank Guarantee bond of any scheduled bank or State Bank of India in accordance with the form prescribed or in the form of Govt. security, fixed deposit receipt etc., as in the case of recovery of security deposit within prescribed number of days of the issue of letter of acceptance. This period can be further extended by the engineer-in-charge up to a maximum period of prescribed number of days on written request of the Contractor. In case the contractor fails to deposit the said performance guarantee within the period as indicated in schedule 'F' including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically, without notice to the contractor.

13. The description of the work which is enclosed separately as Appendix- 'A' of NIT Intending

Bidders are advised to inspect and examine the site and its surrounding and satisfy themselves before submitting their bids as to the site conditions, the form and nature of the site, the means of access to the site and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidder shall be deemed to have full knowledge of the site whether he inspect it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidder shall be responsible for arranging and maintaining at his own cost all materials, tools and plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and other factors having a bearing on the execution of the work.

Tender documents consisting of plans, specifications, the schedule of quantities of the various classes of work to be done and the set of terms & conditions of contract to be complied with by the bidder whose tender may be accepted.

Tender documents in the form of booklet consisting Volume I -Contract conditions, Volume II- Technical Specifications –Civil interiors & services (including List of Approved Makes) and Volume III - Bill of quantities are to be downloaded <https://www.iitb.ac.in/resources/vendors-tenders> and from IITB website <https://www.iitb.ac.in/deanpl/tender.html>

14. The competent authority on behalf of the Director, Indian Institute of Technology Bombay does not bind itself to accept the lowest or any other tender and reserves to itself the authority to reject any or all the tenders received without the assignment of any reason. All tenders in which any of the prescribed

condition is not fulfilled or any condition including that of conditional rebate put forth by the tenderer shall be summarily rejected.

15. Canvassing whether directly or indirectly in connection with tenders is strictly prohibited and tenders submitted by the contractors who resort to canvassing will be liable to rejection.
16. The competent authority on behalf of the Director, Indian Institute of Technology Bombay reserves to himself the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rate quoted.
17. The tender for the works shall remain open for acceptance for a period of ninety (90) days from the date of Opening of the Financial Bid. If any tenderer withdraws his tender before the said period or issue of letter of acceptance whichever is earlier, or makes any modifications in the terms and conditions of the tender which are not acceptable to the department, then IITB shall without prejudice to any other right or remedy, be at liberty to forfeit the 50% of said earnest money as aforesaid. Further the tenderer shall not be allowed to participate in the re-tendering process of the work.
18. This Notice Inviting Tender shall form a part of the contract document. The successful tenderer on acceptance of his tender by the Accepting Authority, shall, within 15 days from the stipulated date of start of the work, sign the contract Agreement consisting of: -
 - i) The notice inviting tender, all the documents including additional condition, specifications and drawing, if any, forms of the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.
19. For composite tenders
 - a. The bidders must associate himself, with agencies of the appropriate class eligible to bid for each of the minor components individually.
 - b. The eligible bidder shall quote rate of all items of major component as well as for all items of minor components of work.
 - c. Entire work under the scope of composite bid including major and all minor components shall be executed under one agreement.
 - d. In case the main contractor intends to change any of the above agency / agencies during the operation of the contract, he shall obtain prior approval of Engineer-In-Charge. The new agency/agencies shall also have to satisfy the laid down eligibility criteria. In case the engineer In-charge is not satisfied with the performance of any agency he can direct the contractor to change the agency executing such items of work and this shall be binding on the contractor.
 - e. The main contractor has to enter into agreement with contractor(s) associated by him for execution of minor component(s). Copy of such agreement shall be submitted to Engineer-in-charge. In case of change of associate contractor, the main contractor has to enter into agreement with the new contractor associated by him.
 - f. The composite work shall be treated as complete when all components of work are completed. The completion certificate of the composite work shall be recorded by Engineer-in-charge of major components after record of completion certificate of all other components.
 - g. Final bill of whole work shall be finalized and paid by the Engineer-in-charge.
20. The tenderer must associate with agencies that are technically and financially capable for the other components individually. The list of proposed agencies shall be submitted along with organization

details, annual turnover, list of work carried out / executing, list of technical persons employed and a valid license, along with the tender.

21. The tenderer shall quote his rate as per various terms and conditions of the tender forms. The rate quoted in the tender form shall be written in figures and words, failing which the bid will be liable for disqualification.
22. The department reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criterion.
23. **It will be obligatory on part of the tenderer to sign the tender document for all the components (Schedule of Quantities, conditions, special conditions and Proforma schedules etc.)**

Dean (I.P.S)

Dean (I.P.S)

ON BEHALF OF
INDIAN INSTITUTE OF TECHNOLOGY – BOMBAY

INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

Powai, Mumbai – 400076, Maharashtra.

ITEM RATE TENDER & CONTRACT FOR WORKS

Tender for “Proposed Renovation of Prof. Karthikeyan Hariharan's Lab, S-216 and S-218, Second Floor, MEMS Dept. for Indian Institute of Technology Bombay within IITB campus Powai. Mumbai –400 076”

To be submitted up to **13.00 hrs on 25th August 2026** to Design Cell, 3rd floor, Main bldg., Indian Institute of Technology Bombay, Powai Mumbai 400076 super scribing the name of work and parts in a separate sealed envelope.

To be opened in presence of tenderers who may be present **at 15.30 hrs on 25th August 2026** in the office of Dean (I.P.S.), Indian Institute of Technology Bombay.

Issued to: _____
(contractor)

Signature of officer issuing the documents

Designation

Date of Issue _____

TENDER

I/We have read and examined the notice inviting tender, Schedule, A, B, C, D, E & F. specifications, Drawings & Designs, General Rules and Directions, Conditions of Contract, clauses of contract, Special conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

I/We hereby tender for the execution of the work specified for the president of India within the time specified in schedule 'F', viz., schedule of quantities and in accordance in all respects with the specifications, designs, drawings and instructions in writing referred to in Rule – 1 of general rules and directions and in clause 11 of the conditions of contract and with such materials as are provided for, by, and in respects in accordance with, such conditions so far as applicable.

We agree to keep the tender open for **one hundred and twenty (120) days** from the due date of opening thereof and not to make any modifications in its terms and conditions.

A sum of Rs.**31895/-** has been deposited in cash/receipt treasury challan / deposit at call receipt of a schedule bank/ fixed deposit receipt of scheduled bank/demand draft of a scheduled bank, / bank guarantee issued by a scheduled bank as earnest money. If I/We, fail to furnish the prescribed performance guarantee within prescribed period, I/We agree that Director IITB or his successors in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/we fail to commence work as specified, I/we agree that Director IITB

or his successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely, otherwise the said earnest money shall be retained by him towards security deposit, to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviation as may be ordered. Upto maximum of the percentage mentioned in Schedule 'F' and those in excess of that limit at the rates to be determined in accordance with the provision contained in clause 12.2 and 12.3 of the clauses of contract.

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

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

Dated_____

Signature of Contractor
Postal Address

Witness:

Address:

Occupation:

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of Indian Institute of Technology Bombay for a sum of Rs_____ (Rupees
.....
.....)

The letters referred to below shall form part of this contract Agreement: -

- a)
- b)
- c)

Dated

Signature_____
Dean (Infrastructure Planning & Support)
Indian Institute of Technology

INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

GENERAL RULES & DIRECTIONS

All work proposed for execution by contract will be notified in a form of invitation to tender pasted in public places and signed by the officer inviting tender or by publication in newspapers as the case may be.

This form will state the work to be carried out, as well as the date for submitting and opening tenders and the time allowed for carrying out the work, also the amount of earnest money to be deposited with the tender, and the amount of the security deposit and performance guarantee to be deposited by the successful tenderer and the percentage, if any, to be deducted from bills. Copies of the specifications, designs and drawings and any other documents required in connection with the work signed for the purpose of identification by the officer inviting tender shall also be open for inspection by the contractor at the officer inviting tender during office hours.

2. In the event of the tender being submitted by a firm, it must be signed separately by each partner thereof or in the event of the absence of any partner, it must be signed on his behalf by a person holding a power – of attorney authorizing him to do so. Such power of attorney to be produced with the tender and it must disclose that the firm is duly registered under the Indian Partnership Act, 1952.

3. Receipts for payments made on account of work, when executed by a firm, must also be signed by all the partners, expected where contractors are described in their tender as a firm, in which case the receipts must be signed in the name of the firm by one of the partners, or by some other person having due authority to give effectual receipts for the firm.

4. Any person who submits a tender shall fill up the usual printed form, stating at what rate he is willing to undertake each item of the work. Tenders, which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort, including conditional rebates, will be summarily rejected. No single tender shall include more than one work, but contractors who wish to tender for two or more works shall submit separate tender for each. Tender shall have the name and number of the 3 works to which they refer, written on the envelopes.

The rate(s) must be quoted in decimal coinage. Amounts must be quoted in full rupees by ignoring fifty paisa and considering more than fifty paisa as rupee one.

5. The officer inviting tender or his duly authorized assistant will open tenders in the presence of any intending contractors who may be present at the time, and will enter the amounts of the several tenders in a comparative statement in a suitable form. In the event of a tender being accepted, a receipt for the earnest money forwarded therewith shall thereupon be given to the contractor who shall there upon for the purpose of identification sign copies of specifications and other documents mentioned in Rule – 1. In the Event of Tender being rejected, the earnest money forwarded with such unaccepted tender shall thereupon be returned to the contractor remitting the same, without any interest.

6. The officer inviting tenders shall have the right of rejecting all or any of the tenders and will not be bound to accept the lowest or any other tender without assigning any reason thereof, whatsoever.

7. The receipt of an accountant or clerk for any money paid by the contractor will not be considered as any acknowledgment or payment to the officer inviting tender and the contractor shall be responsible for seeing that he procures a receipt signed by the officer inviting tender or a duly authorized Cashier.

8. The memorandum of work tendered for and the schedule of materials to be supplied by the department and their issue – rates, shall be filled and completed in the office of the officer inviting tender before the tender form is issued. If a form is issued to an intending tenderer without having been so filled in and incomplete. He shall request the officer to have this done before he completes and delivers his tender.

9. The tenderers shall sign a declaration under the officials Secret Act 1923, for maintaining secrecy of the tender documents drawings or other records connected with the work given to them. The unsuccessful tenderers shall return all the drawings given to them.

10. In the case of item rate tenders, only rates quoted shall be considered. Any tender containing percentage below/above the rates quoted is liable to be rejected. Rates quoted by the contractor in item rate tender in figures and words shall be accurately filled in so that there is no discrepancy in the rates written in figures and words. However, If any discrepancy is found, the rates which correspond with the amount worked out by the contractor shall unless otherwise proved be taken as correct. If the amount of an item is not worked out by the contractor or it does not correspond with the rates written either in figures or in words, then the rates quoted by the contractor in words shall be taken as correct. Where the rates quoted by the contractor in figures and in words tally, but the amount is not worked out correctly, the rates quoted by the contractor will unless otherwise proved be taken as correct and not the amount. In event no rate has been quoted for any item(s), leaving space both in figure(s), word(s), and amount bank, it will be presumed that the contractor has include the cost of this/ these item(s) in other items and

rate for such item(s) will be considered as zero and work will be required to be executed accordingly.

11. In the case of any tender where unit rate of any item/items appear unrealistic, such tender will be considered as unbalanced and in case the tenderer is unable to provide satisfactory explanation, such a tender is liable to be disqualified and rejected.

12. All rates shall be quoted on the tender form. The amount for each item should be worked out and requisite totals given. Special care should be taken to write the rates in figures as well as in words and the amount in figures only, in such a way that interpolation is not possible. The total amount should be written both in figures and in words. In case of figures, the word 'Rs.' Should be written before the figure e.g. rupees and word 'P' after the decimal figures, e.g. 'Rs.2.15P' and in case of words, the word, 'Rupees' should precede and the word 'Paise' should be written at the end. Unless the rate is in whole rupees and followed by the word 'only' it should invariably be upto two decimal places. While quoting the rate in schedule of quantities, the word 'only' should be closely following the amount and it should not be written in next line.

13.

- i) The Contractor whose tender is accepted will be required to furnish performance guarantee of 5% (Five Percent) of the tendered amount within the period specified in Schedule F. This guarantee shall be in the form of cash (in case guarantee amount is less than Rs. 10,000/-) or Deposit at call receipt of any scheduled bank/Banker's cheque of any scheduled bank/Demand Draft of any scheduled bank/Pay order of any scheduled bank (in case guarantee amount is less than Rs. 1,00,000/-) or Government Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form.
- ii) The Contractor, whose tender is accepted, will also be required to furnish by way of Security Deposit for the fulfillment of his contract, an amount equal to 5% of the tendered value of the work. The Security deposit will be collected by deductions from the running bills of the contractor at the rates mentioned above and the earnest money deposited at the time of tenders, will be treated as part of the Security Deposit. The Security amount will also be accepted in cash or in the shape of Government Securities. Fixed Deposit Receipt a scheduled bank or state bank of India will also be accepted for this purpose provided confirmatory advice is enclosed.

14. On acceptance of the tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the engineer-in-charge shall be communicated in writing to the engineer-in-charge.

15. GST or any other tax applicable in respect of inputs procured by the contractor for this contract shall be payable by the contractor and IITB will not entertain any claim what so ever in respect of the same. However, components of GST at the time of supply of service (as provided in CGST act 2017) provided by the contract shall be varied if different from that applicable on the last date of receipt of tender including extension if any.

16. The tender for the work shall not be witnessed by a contractor or contractors who himself/ themselves has/ have tendered or who may and has/have tendered for the same work. Failure to observe this condition would render, tenders of the contractors tendering, as well as witnessing the tender, liable to summary rejection.

17. The contractor shall submit list of works which are in hand (progress) in the following form –

Name of work	Name and particulars of Divn where work is being executed	Value of work	Position of works in progress	Remarks
1.	2.	3.	4.	5.

18. The contractor shall comply with the provisions of the Apprentices Act 1961, and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and the Superintending Engineering / Executive Engineer may in his discretion, without prejudice to any other right or remedy available in law, cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him by the provisions of the said Act.

CONDITIONS OF CONTRACT

Definitions

1. The **Contract** means the documents forming the tender and acceptance thereof and the formal agreement executed between the competent authority on behalf of Indian Institute of Technology Bombay and the Contractor, together with the documents referred to therein including these conditions, the specifications, designs, drawings and instruction issued from time to time by the engineer-in-charge and all these documents taken together, shall be deemed to form one contract and shall be complementary to one another.
2. In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them: -
 - i) The expression **works or work** shall, unless there be 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 through which work is to be executed under the contract or any adjacent land, path or street which may be allotted or used for the purpose of carrying out the contract.
 - iii) The **Contractor** shall mean the individual, firm or company, whether incorporated or not, undertaking the works and shall include the legal personal representative of such individual or the persons composing such firm or company, or the successors of such firm or company and the permitted assignees of such individual, firm or company.
 - iv) The **Director** means the Director of Indian Institute of Technology Bombay and his successors.
 - v) The **Dean (I.P.S.)** means the officer of IITB nominated by Director as a nodal officer for administration of the provisions of the contract on behalf of Director and he shall also act as Engineer-in-Charge.
 - vi) The **Engineer-in-charge** means **Dean (I.P.S.)** who shall supervise and be in-charge of the work and who shall act on behalf of the Director for execution of the contract.

- vii) The **Architect / Consultant** means Architectural firm/individual architect appointed by Institute for the purpose of Comprehensive Architectural Services and Construction Management Services and their authorized representatives.
- viii) Accepting **Authority** shall mean the authority mentioned in Schedule 'F'.
- ix) **Excepted Risk** are 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, lightning 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 use or occupation by Government of the part of the works in respect of which a certificate of completion has been issued or a cause solely due to Government's faulty design of works.
- x) **Market rate** shall be the rate as decided by the engineer-in-charge on the basis of the cost of materials and labour at the site where the work is to be executed plus the percentage mentioned in Schedule 'F' to cover, all overheads and profits.
- xi) Schedule(s) referred to in these conditions shall mean the relevant schedule(s) annexed to the tender papers.
- xii) **Tendered value** means the value of the entire work as stipulated in the letter of award
- xiii) **IITB** means Indian Institute of Technology Bombay, The Director and his successors.
- xiv) **Institute** means Indian Institute of Technology Bombay, The Director and his successors.
- xv) "Temporary Works" means all Temporary Works of every kind required in or about the execution or maintenance of the works.
- xvi) "Permanent Works" means the Permanent Works to be executed and maintained in accordance with the Contract.
- xvii) "Approved" means approved in writing, including subsequent written confirmation of previous verbal by written approval and "approval" means approval in writing including as aforesaid.
- xviii) GST shall mean Goods and Service Tax- Central , State and Interstate.

3. Scope and Performance

Where the context so requires, words imparting the singular only also include the plural and vice versa. Any reference to masculine gender shall whenever required include feminine gender and vice versa.

4. Headings and Marginal notes to these General Conditions of Contract shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof or of the contract.

5. The Contractor shall be Furnished, free of cost one certified copy of the contract documents together with all drawings as may be forming part of the tender papers. None of these documents shall be used for any purpose other than that of this contract.

6. Works to be carried out

The works to be carried out under the contract shall, except as otherwise provided in these conditions, include all labour, materials, tools, plants, equipment and transport which may be required in preparation of and for and in the full and entire execution and completion of the works. The descriptions given in the schedule of Quantities shall, unless otherwise stated, be held to include wastage on materials, carriage and cartage, carrying and return of empties, hosting, setting, fitting and fixing in position and all other labours necessary in and for the full and entire execution and completion of the work as aforesaid in accordance with good practice and recognized principles.

7. Sufficiency of Tender

The Contractor shall be deemed to have attended the Pre Bid Meeting as per the N. I. T. and satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices quoted in the Schedule of Quantities, except as otherwise provided, cover all his obligations under the contract and all matters and things necessary for the proper completion and maintenance of the works.

8. Discrepancies and Adjustment of Errors

The several documents forming the Contract are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small scale drawing and figured dimensions in preference to scale and special conditions in preference to General Conditions

8.1 In the 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 Specification and Special Conditions, if any
- iii)Drawings.
- iv)Indian Standard Specifications of B.I.S.
- v)Manufacturer's specification.

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

8.3 Any error in description, quantity or rate in Schedule of Quantities or any omission therefrom shall not permit the contractor deviate the Contract or release the contractor from the execution of the whole or any part of the works comprised therein according to drawings and specifications or from any of his obligation under the contract.

9. Signing of Contract

The successful tenderer/contractor, on acceptance of his tender by the Accepting Authority, shall within 15 days from the stipulated date of start of the work sign the contract consisting of:-

- i) The notice inviting tender, all the documents viz.
 - a) Volume – I (Item rate Tender, Conditions of Contract and Proforma of Schedule A to F, Queries raised and clarifications offered during Per-Bid meeting)
 - b) Volume – II (Technical Specifications & Drawings)
 - c) Volume – III (Schedule of Quantities - Bills of Quantities)
 - d) Addendum / Corrigendum
 - e) Any clarification other than Addendum / corrigendum

Forming the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.

10. The following persons(s)/firm(s) shall include their legal representative or in the event of their ceasing, person(s)/firm(s) as nominated by IITB, not being a person(s)/firm(s) to whom the contractor shall object for reasons considered sufficient by IITB. Provided always that no person(s)/firm(s) subsequently appointed under this contract shall be entitled to disregard or overrule any decision or approval or direction given or expressed in writing.

10.1 Architect
DESIGN CELL
IIT BOMBAY

Electrical Consultant
CZAR CONSULTANTS

CLAUSE OF CONTRACT

CLAUSE 1

Performance Guarantee

- i) The contractor shall submit an irrevocable Performance Guarantee of 5% (Five percent) of the tendered amount in addition to other deposits mentioned elsewhere in the contract for his proper performance of the contract agreement, (not withstanding and/or without prejudice to any other provisions in the contract) within period specified in Schedule "F" from the date of issue of letter of acceptance. This period can be further extended by the engineer-in-Charge upto a maximum period as specified in Schedule "F" on written request of the contractor stating the reason for delays in procuring the Bank Guarantee, to the satisfaction of the Engineer-in-Charge. This guarantee shall be in the form of Cash (in case guarantee amount is less than Rs. 10,000/-) or Deposit at Call receipt of any scheduled bank / Banker's Cheque of any scheduled bank / Demand Draft of any scheduled bank / Pay order of any scheduled bank (in case guarantee amount is less than Rs. 1,00,000/-) or Government Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the form annexed hereto. In case a fixed deposit receipt of any Bank is furnished by the contractor to IITB as part of the performance guarantee and the Bank is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the IITB to make good the deficit.
- ii) The Performance Guarantee shall be initially valid upto the stipulated date of completion plus 60 days beyond that. In case the time for completion of work gets enlarged, the contractor shall get the validity of Performance Guarantee extended to cover such enlarged time for completion of work. After recording of the completion certificate for the work by the competent authority, the performance guarantee shall be returned to the contractor, without any interest.
- iii) The engineer-in-Charge shall not make a claim under the performance guarantee except for amounts to which the IITB is entitled under the contract (not withstanding and/or without prejudice to any other provisions in the contract agreement) in the event of
 - a) Failure by the contractor to extend the validity of the Performance Guarantee as described herein above, in which event the Engineer-in-Charge may claim the full-amount of the Performance Guarantee.
 - b) Failure by the contractor to pay IITB any amount due, either as agreed by the contractor or determined under any of the Clauses/Conditions of the agreement, within 30 days of the services of notice to this effect by Engineer-in-Charge.

- iv) In the event of the contract being determined or rescinded under provision of any of the Clause/Conditions of the agreement, the performance guarantee shall stand forfeited in full and shall be absolutely at the disposal of the IITB.

CLAUSE 1 A

Recovery of Security Deposit

The person/persons whose tender(s) may be accepted (hereinafter called the contractor) shall permit Institute at the time of making any payment to him for work done under the contract to deduct a sum at the rate of 5% of the gross amount of each running bill till the sum along with the sum already deposited as earnest money, will amount to security deposit of 5% of the tendered value of the work. Such deductions will be made and held by IITB by way of Security Deposit unless he/they/has/have deposited the amount of Security at the rate mentioned above in cash or in the form of Government Securities or fixed deposit receipts. In case a fixed deposit receipt of any Bank is furnished by the contractor to IITB as part of the Security deposit and the Bank is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to IITB to make good the deficit.

All compensation or the other sums of money payable by the contractor under the terms of this contract may be deducted from, or paid by the sale of a sufficient part of his security deposit or form the interest arising therefrom, or from any sums which may be due to or may become due to the contractor by IITB on any account whatsoever and in the event of his Security Deposit being reduced by reason of any such deductions or sale as aforesaid, the contractor shall within 10 days make good in cash or fixed deposit receipt tendered by the State Bank of India or by Scheduled Banks or Government Securities (if deposited for more than 12 months) endorsed in favour of Registrar, IIT Bombay any sum or sums which may have been deducted from, or raised by sale of his security deposit or any part thereof. The security deposit shall be collected from the running bills of the contractor at the rates mentioned above and the Earnest money if deposited in cash at the time of tenders will be treated a part of the Security Deposit.

The security deposit as deducted above can be released against bank guarantee issued by a scheduled bank on its accumulations to a minimum of Rs. 5 lakh subject to the condition that amount of such bank guarantee, except last one, shall not be less Rs. 5 lakh. Provided further that the validity of bank guarantee including the one given against the earnest money shall be in conformity with provisions contained in clause 17 which shall be extended from time to time depending upon extension of contract granted under provisions of clause 2 and clause 5.

Note-1: Government papers tendered as security will be taken at 5% (five per cent) below its market price or at its face value, whichever is less. The market price of Government

paper would be ascertained by the Director (IITB) at the time of collection of interest and the amount of interest to the extent of deficiency in value of the Government paper will be withheld if necessary.

Note-2: Government Securities will include all forms of Securities mentioned in rule No 274 of the G. F. Rules except fidelity bond. This will be subject to the observance of the condition mentioned under the rule against each form of security.

Note-3: Note 1 & 2 above shall be applicable for both clause 1 and 1A

CLAUSE 2

Compensation for Delay

If the contractor fails to maintain the required progress in terms of clause 5 or to complete the work and clear the site on or before the contract or extended date of completion, he shall without prejudice to any other right of remedy available under the law to the Government on account of such breach, pay as agreed compensation the amount calculated at the rates stipulated below as the director IITB (whose decision in writing shall be final and binding) may decide on the amount of tendered value of the work for every completed day/month (as applicable) that the progress remains below that specified in clause 5 or that the work remains incomplete.

This will also apply to items or group of items for which a separate period of completion has been specified.

- | | | |
|----|-------------------|---------------------------------|
| i) | Compensation | @ 1.5% per month of delay |
| | for delay of work | to be computed on per day basis |

Provided always that the total amount of compensation for delay to be paid under this condition shall not exceed 10% of the tendered value of work or of the Tendered value of the item or group of items of work for which a separate period of completion is originally given.

The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with the Government. In case, the contractor does not achieve a particular milestone mentioned in schedule F, or the re-scheduled milestone(s) in terms of Clause 5.4, the amount shown against that milestone shall be withheld, to be adjusted against the compensation levied at the final grant of Extension of Time. With-holding of this amount of failure to achieve a milestone, shall be automatic without any notice to the contractor. However, if the contractor catches up with the progress of work on the subsequent milestone(s), the withheld amount shall be released. In case the contractor fails to make up for the delay in subsequent milestone(s), amount mentioned against each milestone missed subsequently also shall be withheld. However, no interest, whatsoever, shall be payable on such withheld amount.

CLAUSE 2A (NOT APPLICABLE)

Incentive for early completion

In case, the contractor completes the work ahead of scheduled completion time, a bonus @ 1% (one per cent) of the tendered value per month computed on per day basis, shall be payable to the contractor, subject to a maximum limit of 5% (five per cent) of the tendered value. The amount of bonus, if payable, shall be paid along with final bill after completion of work. Provided always that provision of the Clause 2A shall be applicable only when so provided in 'Schedule F'

CLAUSE 3

When contract can be Determined

Subject to other provisions contained in this clause, the Engineer-in-charge may, without prejudice to his any other rights or remedy against the contractor in respect of any delay, inferior workmanship, any claims for damages and/or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, by notice in writing absolutely determine the contract in any of the following cases:

- ii) If the contractor having been given by the Engineer-in-charge a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or unworkmanlike manner shall omit to comply with the requirement of such notice for a period of seven days thereafter.
- iii) If the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence so that in the opinion of the Engineer-in-charge (which shall be final and binding) he will be unable to secure completion of the work by the date for completion and continues to do so after a notice in writing of seven days from the Engineer-in-charge.
- iv) If the contractor fails to complete the work within the stipulated date or items of work with Individual date of completion, if any stipulated, on or before such date(s) of completion and does not complete them within the period specified in a notice given in writing in that behalf by the Engineer-in-charge.
- v) If the contractor persistently neglects to carry out his obligations under the contract and/or commits default in complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-Charge.
- vi) If the contractor shall offer or give or agree to give to any person in IITB or to any other person on his behalf any gift or consideration of any kind as an inducement or

reward for doing or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of this or any other contract for IITB.

- vii) If the contractor shall enter into a contract with IITB in connection with which commission has been paid or agreed to be paid by him or to his knowledge unless the particular of any such commission and the terms of payment thereof have been previously disclosed in writing to the Engineer-in-charge.
- viii) If the contractor shall obtain a contract with IITB as a result of wrong tendering or other non-bonafide method of competitive tendering.
- ix) If the contractor being an individual, or if a firm, any partner thereof shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any insolvency act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors.
- x) If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court to make a winding up order.
- xi) If the contractor shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days.
- xii) If the contractor assigns, transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer, sublet or otherwise parts with the entire works or any portion thereof without the prior written approval of the engineer-in-charge.
- xiii) If the work is not started by the contractor within 1/8th of the stipulated time.

When the contractor has made himself liable for action under any of the cases aforesaid, the Engineer-in-Charge on behalf of the president of India shall have powers:

- h. To determine the contract as aforesaid (of which termination notice in writing to the contractor under the hand of the Engineer-in-Charge shall be conclusive evidence). Upon such determination, the Earnest Money Deposit, Security Deposit already recovered and Performance Guarantee under the contract shall be liable to be forfeited and shall be absolutely at the disposal of the IITB.
- i. After giving notice to the contractor to measure up the work of the contractor and to take such whole, or the balance or part thereof, as shall be unexecuted out of his hands and to give it to another contractor to complete the work. The contractor, whose contract is determined as above, shall not be allowed to participate in the tendering process for the balance work.

In the event of above courses being adopted by the Engineer-in-Charge, the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer-in-Charge has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

CLAUSE 3A

In case, the work cannot be started due to reasons not within the control of the contractor within 1/8th of the stipulated time for completion of work, either party may close the contract. In such eventuality, the earnest money Deposit and the Performance Guarantee of the contractor shall be refunded, but no payment on account of interest, loss of profit or damages etc. shall be payable at all.

CLAUSE 4

Contractor liable to pay compensation even if action not taken under Clause 3

In any case in which any of the powers conferred upon the Engineer-in-Charge by Clause-3 thereof, shall have become exercisable and the same are not exercised, the non-exercise thereof shall not constitute a waiver of any of the conditions hereof and such powers shall notwithstanding be exercisable in the event of any future case of default by the contractor and the liability of the contractor for compensation shall remain unaffected. In the event of the Engineer-in-Charge putting in force all or any of the "powers vested in him under the preceding clause he may, if he so desires after giving a notice in writing to the contractor, take possession of (or at the sole discretion of the Engineer-in-Charge which shall be final and binding on the contractor) use as on hire (the amount of the hire money being also in the final determination of the Engineer-in-Charge) all or any tools, plant, materials and

stores, in or upon the works, or the site thereof belonging to the contractor, or procured by the contractor and intended to be used for the execution of the work/or any part thereof, paying or allowing for the same in account at the contract rates, or, in the case of these not being applicable, at current market rates to be certified by the Engineer-in-Charge, whose certificate thereof shall be final, and binding on the contractor, clerk of the works, foreman or other authorized agent to remove such tools, plant, materials, or stores from the premises (within a time to be specified in such notice) in the event of the contractor failing to comply with any such requisition, the Engineer-in-Charge may remove them at the contractor's expenses or sell them by auction or private sale on account of the contractor and his risk in all respects and the certificate of the Engineer-in-Charge as to the expenses of any such removal and the amount of the proceeds and expenses of any such sale shall be final and conclusive against the contractor.

CLAUSE 5

Time and Extension for Delay

The time allowed for execution of the works as specified in the Schedule 'F' or the extended time in accordance with these conditions shall be the essence of the contract. The execution of the works shall commence from such time period as mentioned in Schedule 'F' or from the date of handing over of the site whichever is later. If the contractor commits default in commencing the execution of the work as aforesaid, The Institute shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the earnest money & performance guarantee absolutely.

5.1 As soon as possible after the contract is concluded the contractor shall submit a Time and Progress Chart for each mile stone and get it approved by IITB. The Chart shall be prepared in direct relation to the time stated in the contract documents for completion of items of the works. It shall indicate The forecast of the dates of commencement and completion of various trades of sections of the work and may be amended as necessary by agreement between the Engineer-in-Charge and the contractor within the limitations of the imposed in the contract documents, and further to ensure good progress during the execution of the work, the contractor shall in all cases in which the time allowed for any work, exceeds one month (save for special jobs for which a separate programme has been agreed upon) complete the work as per mile stones given in Schedule 'F'.

5.2 If the work(s) be delayed by:-

- i) Force majeure, or
- ii) abnormally bad weather, or
- iii) Serious loss or damage by fire, or
- iv) Civil commotion, local commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or

- v) Delay on the part of other contractors or tradesmen engaged by Engineer-in-Charge in executing work not forming part of the contract, or
- vi) non-availability of stores, which are the responsibility of the institute to supply or
- vii) non-availability or breakdown of tools and plant to be supplied or supplied by the Institute or
- viii) Any other cause which, in the absolute discretion of the Engineer-in-Charge is beyond the contractor's control

then upon the happening of any such event causing delay, the contractor shall immediately give notice thereof in writing to the authority as indicated in Schedule 'F' but shall nevertheless use constantly his best endeavors to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the works.

5.3 Request for rescheduling of Mile stones and extension of time, to be eligible for consideration, shall made by the contractor in writing within fourteen days of the happening of the event causing delay on the prescribed form the authority as indicated in Schedule 'F'. The contractor may also if practicable, indicate in such a request the period for which extension is desired.

5.4 In any such case the authority as indicated in Schedule 'F' may give a fair and reasonable extension of time and reschedule the mile stones for completion of work. Such extension shall be communicated to the Contractor by the Engineer-in-Charge in writing, within 3 months of the date of receipt of such request. Non-application by the contractor for extension of time shall not be a bar for giving a fair and reasonable extension by the authority as indicated in Schedule 'F' and this shall be binding on the contractor.

CLAUSE 6

Measurements of Work Done

Engineer-in-Charge shall, except as otherwise provided, ascertain and determine by measurement, the value in accordance with the contract of work done.

All measurements of all items having financial value shall be entered in Measurement book and/or level field book so that a complete record is obtained of all works performed under the contract.

All measurements and levels shall be taken jointly by the Engineer-in-Charge and the contractor or their representatives in token of their acceptance. If the contractor objects to any of the measurements recorded, a note shall be made to that effect with reason and signed by both the parties.

If for any reason the contractor or his authorized representative is not available and the work of recording measurements is suspended by the Engineer-in-Charge or his representative, the Engineer-in-Charge and the Department shall not entertain any claim from contractor for any loss or damages on this account. If the contractor or his authorized representative has been given a notice writing three (3) days in advance or fails to countersign or to record objection within a week from the date of the measurement, then such measurements recorded in his absence by the Engineer-in-Charge or his representative shall be deemed to be accepted by the contractor.

The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for measurements and recording levels.

Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specification notwithstanding any provision in the relevant standard method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the bureau of Indian Standards and if for any item no such standard is available, then a mutually agreed method shall be followed.

The contractor shall give, not less than seven days notice to the Engineer-in-Charge or his authorized representative in charge of the work, 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 covered up or placed beyond the reach of measurement and shall not cover up and place beyond reach of measurement any work without consent in writing of the Engineer-in-Charge or his authorized representative in charge of the work who 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 measurements without such notice having been given or the Engineer-in-Charge's consent being obtained in writing, 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.

Engineer-in-Charge or his authorized representative may cause either themselves or through another officer of the department to check the measurements recorded jointly or otherwise as aforesaid and all provisions stipulated herein above shall be applicable to such checking of measurements or levels.

It is also a term of this contract that recording of measurements of any item of work in the measurement book and/or its payment in the interim, on account or final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it

relates nor shall it relieve the contractor from liabilities from any over measurement or defects noticed till completion of the defect's liability period.

CLAUSE 6A

COMPUTERIZED MEASUREMENT BOOK

Engineer-in-Charge shall, except as otherwise provided, ascertain and determine by measurement the value of work done in accordance with the contract.

All measurements of all items having financial value shall be entered by the contractors and complied in the shape of the computerized measurement book having pages of A-4 size as per the format of The department so that a complete record is obtained of all the items of works performed under the contract.

All such measurements and levels recorded by the contractor or his authorized representative from time to time, during the progress of the work, shall be got checked by the contractor from the Engineer-in-Charge or his authorized representative as per interval or programme fixed in consultation with Engineer-in-Charge or his authorized representative. After the necessary corrections made by the Engineer-in-Charge, the measurement sheets shall be returned to the contractor for incorporating the corrections and for resubmission to the Engineer-in-Charge for the dated signatures by the Engineer-in-Charge and the contractor or their representatives in token of their acceptance.

Whenever bill is due for payment, the contractor would initially submit draft computerized measurement sheets and these measurements would be checked/test checked from the Engineer-in-Charge and/or his authorized representative. The contractor will, thereafter incorporate such changes as may be done during these check/test checks in his draft computerized measurements, and submit to the department a computerized measurement book, duly bound, and with its pages machine numbered. The Engineer-in-Charge and/or his authorized representative would thereafter check this MB, and record the necessary certificates for their checks/test checks.

The final, fair, computerized measurement book given by the contractor, dully bound, with its pages machine numbered, should be 100% correct, and no cutting or overwriting in the measurements would thereafter be allowed. If at all any error is noticed the contractor shall have to submit a fresh computerized MB with its pages duly machine numbered and bound, after getting the earlier MB cancelled by the department. Thereafter, the MB shall be taken in the Divisional office records, and allotted a number as per the register of computerized MBs. This should be done before the corresponding bill is submitted to the division office for payment. The contractor shall submit two spare copies of such computerized MB's for the purpose of reference and record by the various officers of the department.

The contractor shall also submit to the department separately his computerized abstract of cost and the bill based on these measurements, duly bound, and its pages machine numbered along with two spare copies of the "bill. Thereafter, this bill will be processed by the division office and allotted a number as per the computerized record in the same way as done for the measurement book meant for measurements.

The contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for checking of measurements/levels by the Engineer-in-Charge or his representative.

Except where any general or detailed description of the work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provision in the relevant standard method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurement issued by the Bureau of Indian standards and if for any item no such standard is available then a mutually agreed method shall be followed.

The contractor shall give not less than seven days' notice to the Engineer-in-Charge or his authorized representative in charge of the work before covering up or otherwise placing beyond the reach of checking and/or test checking the measurement of any work in order that the same may be checked and/or test checked and correct dimension thereof be taken before the same is covered up or placed beyond the reach of checking and/or test checking measurement and shall not cover up place beyond reach of measurement any work without consent in writing of the Engineer-in-Charge or his authorized representative in charge of the work who 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 checking and/or test checking measurement without such notice having been given or the Engineer-in-Charge's consent being obtained in writing the same shall be uncovered at the contractor's expenses or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

Engineer-in-Charge or his authorized representative may cause either themselves or through another officer of the department to check the measurements recorded by contractor and all provisions stipulated herein above shall be applicable to such checking of measurements or levels.

It is also a term of this contract that checking and/or test checking the measurements of any item of work in the measurement book and/or its payment in the interim, on account of final bill shall not be considered as conclusive evidence as to the sufficiency of any work or material to which it relates nor shall it relieve the contractor from liabilities from any over measurement or defect noticed till completion of the defects liability period.

CLAUSE 7**Payment on Intermediate certificate to be regarded as advances**

No payment shall be made for work, estimated to cost Rs. Twenty thousand or less till after the whole of the work shall have been completed and certificate of completion given. For works estimated to cost over Rs. Twenty thousand, the interim or running account bills shall be submitted by the contractor for the work executed on the basis of such recorded measurements on the format of the institute in triplicate on or before the date of every month fixed for the same by the Engineer-in-Charge. The contractor shall not be entitled to be paid any such interim payment if the gross work done together with net payment/adjustment of advances for material collected, if any, since the last payment is less than the amount specified in Schedule F, in which case the interim bill shall be prepared on the appointed date of the month after the requisite progress is achieved. Engineer-in-Charge shall arrange to have the bill verified by taking or causing to be taken, where necessary, the requisite measurements of the work. In the event of the failure of the contractor to submit the bills, Engineer-in-Charge shall prepare or cause to be prepared such bills in which event no claims whatsoever due to delays on payment including that of interest shall be payable to the contractor. Payment on account of amount admissible shall be made by the Engineer-in-Charge certifying the sum to which the contractor is considered entitled by way of interim payment at such rates as decided by the Engineer-in-Charge. The amount admissible shall be paid by 15th working day after the day of presentation of the bill by the contractor to the Engineer-in-Charge or his Asstt. Engineer together with the account of the material issued by the Institute, or dismantled materials, if any.

All such interim payment shall be regarded as payment by way of advances against final payment only and shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be rejected, removed, taken away and reconstructed or re-erected, any certificate given by the Engineer-In-Charge relating to the work done or materials delivered forming part of such payment, may be modified or corrected by any subsequent such certificate(s) or by the final certificate and shall not by itself be conclusive evidence that any work or materials to which it relates is/are in accordance with the contract and respect conclude, determine or affect in any way powers of the Engineer-in-Charge under the contract or any of such payments be treated as final settlement and adjustment of accounts or in any way vary or affect the contract.

Pending consideration of extension of date of completion, interim payments shall continue to be made as herein provided without prejudice to the right of the department to take action under the terms of this contract for delay in the completion of work, if the extension of date of completion is not granted by the competent authority.

The Engineer-in-Charge in his sole discretion on the basis of a certificate from the Asst. Engineer to the effect that the work has been completed upto the level in question make interim advance payments without detailed measurements for work done (other than

foundations, items to be covered under finishing items) upto lintel level (including sunshade etc.) and slab level, for each floor working out at 75% of the assessed value. The advance payments so allowed shall be adjusted in the subsequent interim bill by taking detailed measurement thereof.

CLAUSE 8

Completion Certificate and Completion Plans

Within ten days of the completion of the work, the contractor shall give notice of such completion to the Engineer-in-Charge and within thirty days of the receipt of such notice the Engineer-in-Charge shall inspect the work and if there is no defect in the work, shall furnish the contractor with a final certificate of completion, otherwise a provisional certificate of physical completion indicating defects (a) to be rectified by the contractor and/or (b) for which payment will be made at reduced rates, shall be issued. But no final certificate of completion shall be issued, nor shall the work be considered to be complete until the contractor shall have removed from the premises on which the work shall be executed all scaffolding, surplus materials, rubbish and all huts and sanitary arrangements required for his/their work people on the site in connection with the execution of the works as shall have been erected or constructed by the contractor(s) and cleaned off the dirt from all wood work, doors, windows, walls, floor or other parts of the building, in upon, or about which the work is to be executed or which he may have had possession for the purpose of the execution thereof, and not until the work shall have been measured by the Engineer-in-Charge. If the contractor shall fail to comply with the requirements of this clause as to removal of scaffolding, surplus materials and rubbish and all huts and sanitary arrangements as aforesaid and cleaning off dirt on or before the date fixed for the completion of work, the Engineer-in-Charge may at the expense of the contractor remove such scaffolding, surplus materials and rubbish etc., and dispose of the same as he thinks fit and clean off such dirt as aforesaid, and the contractor shall have no claim in respect of scaffolding or surplus materials as aforesaid except for any sum actually realized by the sale thereof.

CLAUSE 8A

Contractor to Keep Site Clean

When the annual repairs and maintenance of works are carried out, the splashes and droppings from white washing, colour washing, painting etc., on walls, floor, windows, etc., shall be removed and the surface cleaned simultaneously with the completion of these items of work in the individual rooms, quarters or premises etc., where the work is done without waiting for the actual completion of all the other items of work in the contract. In case the contractor fails to comply with the requirements of this clause, the Engineer-in-Charge shall have right to get this, work done; at the cost of the contractor either departmentally or through any other agency. Before taking such action, the Engineer-in-Charge shall give ten days notice in writing to the contractor.

CLAUSE 8B

Completion Plans to be submitted by the Contractor

The contractor shall submit completion plan as required vide General Specifications for Electrical works (Part-I internal) 2005 and (Part-II External) 1994 as applicable within thirty days of the completion of the work.

In case, the contractor fails to submit the completion plan as aforesaid, he shall be liable to pay a sum equivalent to

% of the value of the work subject to a ceiling of Rs.15,000/- (Rupees Fifteen Thousand Only) as may fixed by the Engineer-in-Charge and in this respect the decision of the Engineer-in-Charge shall be final and binding on the contractor.

CLAUSE 9

Payment of Final Bill

The final bill shall be submitted by the contractor in the same manner as specified in interim bills within three months of physical completion of the work or within one month of the date of the final certificate of completion furnished by the Engineer-in-Charge whichever is earlier. No further claims shall be made by the contractor after submission of the final bill and these shall be deemed to have been waived and extinguished. Payments of those items of the bill in respect of which there is no dispute and of items in dispute, for quantities and rates as approved by Engineer-in-Charge, will, as far as possible be made within the period specified herein under, the period being reckoned from the date of receipt of the bill by the Engineer-in-Charge or his authorized Asstt. Engineer, complete with account of materials issued by the Department and dismantled materials.

- | | | |
|---|---|----------|
| i) If the tendered value of work is upto Rs.15 Lakhs. | : | 2 months |
| ii) If the tendered value of work exceeds Rs.15 Lakhs | : | 3 months |

CLAUSE 9A

Payment of Contractor's Bills to Banks

Payments due to the contractor may, if so desired by him, be made to his bank, registered financial, co-operative or thrift societies or recognized financial institutions instead of direct to him provided that the contractor furnishes to the Engineer-in-Charge (1) an authorization in the form of a legally valid document such as a power of attorney conferring authority on the bank; registered financial, co-operative or thrift societies or recognized financial institutions to receive payments and (2) his own acceptance of the correctness of the amount made out as being due to him by IITB or his signature on the bill or other that claim preferred against IITB before settlement by the Engineer-in-Charge of the account or claim by payment to the bank, registered financial, co-operative or thrift societies or recognized financial institutions. While the receipt given by such banks; registered financial, co-operative or thrift societies or recognized financial institutions. While the receipt given by such banks; registered financial, co-operative or thrift societies or recognized financial

institutions shall constitute a full and sufficient discharge for the payment, the contractor shall whenever possible present his bills duly receipted and discharged through his bank, registered financial, co-operative or thrift societies or recognized financial institutions.

Nothing herein contained shall operate to create in favour of the bank; registered financial, co-operative or thrift societies or recognized financial institutions any rights or equities vis-à-vis IITB.

CLAUSE 10

Materials supplied by the Employer / Institute

Materials which Government will supply are shown in Schedule 'B' which also stipulates quantum, place of issue and rate(s) to be charged in respect thereof. The contractor shall be bound to procure them from the Engineer-in-Charge.

As soon as the work is awarded, the contractor shall finalize the programme for the completion of work as per clause 5 of this contract and shall give his estimates of materials required on the basis of drawings/or schedule of quantities of the work. The Contractor shall give in writing his requirement to the Engineer-in-Charge which shall be issued to him keeping in view the progress of work as assessed by the Engineer-in-Charge, in accordance with the agreed phased programme of work indicating monthly requirements of various materials. The contractor shall place his indent in writing for issue of such materials at least 7 days in advance of his requirement.

Such materials shall be supplied for the purpose of the contract only and the value of the materials so supplied at the rates specified in the aforesaid schedule shall be set off or deducted, as and when materials are consumed in items of work (including normal wastage) for which payment is being made to the contractor, from any sum then due or which may therefore become due to the contractor under the contract or otherwise or from the security deposit. At the time of submission of bills, the contractor shall certify that balance of materials supplied is available at site in original good condition.

The contractor shall submit along with every running bill (on account or interim bill) material wise reconciliation statements supported by complete calculations reconciling total issue, total consumption and certified balance (diameter/section-wise in the case of steel) and resulting variations and reasons therefore. Engineer-in-Charge shall (whose decision shall be final and binding on the contractor) be within his rights to follow the procedure of recovery in clause 42 at any stage of the work if reconciliation is not found to be satisfactory.

The contractor shall bear the cost of getting the material issued, loading, transporting to site, unloading, storing under cover as required, cutting assembling and joining the several parts together as necessary. Notwithstanding anything to the contrary contained in any other clause of the contract and (or the CPWA Code) all stores/materials so supplied to the contractor or procured with the assistance of the Government shall remain the absolute property of Government and the contractor shall be the trustee of the stores/materials, and the said stores/materials shall not be removed/disposed off from the site of the work on any account and shall be at all times open to inspection by the Engineer-in-Charge or his authorized agent. Any such stores/materials remaining unused shall be returned to the Engineer-in-Charge in as good a condition in which they were originally supplied at a place directed by him, at a place of issue or any other place specified by him as he shall require, but in case it is decided not to take back the stores/materials the contractor shall have no

claim for compensation on any account of such stores/materials so supplied to him as aforesaid and not used by him or for any wastage in or damage to in such stores/materials. On being required to return the stores/materials, the contractor shall hand over the stores/materials on being paid or credited such price as the Engineer-in-Charge shall determine, having due regard to the condition of the stores/materials. The price allowed for credit to the contractor, however, shall be at the prevailing market rate not exceeding the amount charged to him, excluding the storage charge, if any. The decision of the Engineer-in-Charge shall be final and conclusive. In the event of breach of the aforesaid condition, the contractor shall in addition to throwing himself open to account for contravention of the terms of the licences or permit and/or for criminal breach of trust, be liable to Government for all advantages or profits resulting or which in the usual course would have resulted to him by reason of such breach. Provided that the contractor shall in no case be entitled to any compensation or damages on account of any delay in supply or non-supply thereof all or any such materials and stores provided further that the contractor shall be bound to execute the entire work if the materials are supplied by the Government within the original scheduled time for completion of the work plus 50% thereof or schedule time plus 6 months whichever is more if the time of completion of work exceeds 12 months, but if a part of the materials only has been supplied within the aforesaid period, then the contractor shall be bound to do so much of the work as may be possible with the materials and stores supplied in the aforesaid period. For the completion of the rest of the work, the contractor shall be entitled to such extension of time as may be determined by the Engineer-in-Charge whose decision in this regard shall be final and binding on the contractor.

The contractor shall see that only the required quantities of materials are got issued. Any such material remaining unused and in perfectly good/original condition at the time of completion or determination of the contract shall be returned to the Engineer-in-Charge at the stores from which it was issued or at a place directed by him by a notice in writing. The contractor shall not be entitled for loading, transporting, unloading and stacking of such unused material except for the extra lead, if any involved, beyond the original place of issue.

CLAUSE 10A

Materials to be provided by the Contractor

The contractor shall, at his own expense, provide all materials, required for the works other than those which are stipulated to be supplied by the Institute.

The contractor shall, at his own expense and without delay; supply to the Engineer-in-Charge samples of materials to be used on the work and shall get these approved in advance. All such materials to be provided by the contractor shall be in conformity with the specifications laid down or referred to in the contract. The contractor shall, if requested by the Engineer-in-Charge furnish proof, to the satisfaction of the Engineer-in-Charge that the materials so comply. The Engineer-in-Charge shall within thirty days of supply of samples or within such further period as he may require intimate to the contractor in writing whether samples are approved by him or not. If samples are not approved, the contractor shall forthwith arrange to supply to the Engineer-in-Charge for his approval fresh samples complying with the specifications laid down in the contract. When materials are required to

be tested in accordance with specifications, approval of the Engineer-in-Charge shall be issued after the test results are received.

The contractor shall at his risk and cost submit the samples of materials to be tested or analysed and shall not make use of or incorporate in the work any materials represented by the samples until the required tests or analysis have been made and materials finally accepted by the Engineer-in-Charge. The Contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of materials.

The contractor shall, at his risk and cost, make all arrangements and shall provide all facilities as the Engineer-in-Charge may require for collecting, and preparing the required number of samples for such tests at such time and so such place or places as may be directed by the Engineer-in-Charge and bear all charges and cost of testing unless specially provided for otherwise elsewhere in the contract or specifications. The Engineer-in-Charge or his authorized representative shall at all times have access to the works and to all workshops and places where work is being prepared or from where materials, manufactured articles or machinery are being obtained for the works and the contractor shall afford every facility and every assistance in obtaining the right to such access.

The Engineer-in-Charge shall have full powers to require the removal from the premises of all materials which in his opinion are not in accordance with the specification and in case of default, the Engineer-in-Charge shall be at liberty to employ at the expense of the contractor, other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials. The Engineer-in-Charge shall also have full powers to require other proper materials to be substituted thereof and in case of default, the Engineer-in-Charge may cause the same to be supplied and all costs which may attend such removal and substitution shall be borne by the Contractor.

The contractor shall at his own expense, provide a material testing lab at the site for conducting routine field tests. The lab shall be equipped at least with the testing equipment as specified in schedule F.

CLAUSE 10B

i) Secured Advance on Non-perishable Materials

The contractor, on signing an indenture in the form to be specified by the Engineer-in-Charge, shall be entitled to be paid during the progress of the execution of the work upto 90% of the assessed value of any materials which are in the opinion of the Engineer-in-Charge non-perishable, non-fragile and non-combustible and are in accordance with the contract and which have been brought on the site in connection therewith and are adequately stored and/or protected against damage by weather or other causes but which have not at the time of advance been incorporated in the

works. When materials on account of which an advance has been made under this sub-clause are incorporated in the work, the amount of such advance shall be recovered / deducted from the next payment made under any of the clause or clauses of this contract.

- ii) **Mobilization Advance** Mobilization advance not exceeding 5% of the tendered value may be given, if requested by the contractor in writing within one month of the order to commence the work. Such advance shall be in one or more installments to be determined by the Engineer-in-Charge at his sole discretion. The first installment of such advance shall be released by the Engineer-in-Charge to the contractor on a request made by the contractor to the Engineer-in-Charge in this behalf. The first and subsequent installments shall be released by the Engineer-in-Charge only after the contractor furnishes a proof of the satisfactory utilization of the earlier installment to the entire satisfaction of the Engineer- in-Charge.

Before any installment of advance is released, the contractor shall execute a Bank guarantee Bond from schedule bank for the amount of advance including interest and valid for the contract period. This shall be kept renewed from time to time to cover the balance amount and likely period of complete recovery, together with interest.

Provided always that provision of Clause 10 B (ii) shall be applicable only when so provided in 'Schedule F'.

- iii) **Plant Machinery & Shuttering material Advance (NOT APPLICABLE)**

An advance for plant, machinery & shuttering material required for the work and brought to site by the Contractor may be given if requested by the contractor in writing within one month of bringing such plant and machinery to site. Such advance shall be given on such expeditious execution of work and improve the quality of work. The amount of advance shall be restricted to 5% percent of the tender value. In the case of new plant and equipment to be purchased for the work, the advance shall be restricted to 90% of the price of such new plant and equipment paid by the contractor for which the contractor shall produce evidence satisfactory to the Engineer-in-Charge. In the case of second hand and used plants and equipment, the amount of such advance shall be limited to 50% of the depreciated value of plant and equipment as may be decided by the Engineer-in-Charge. The contractor shall, if so required by the Engineer-in-Charge, submit the statement of value of such old plant and equipment duly approved by a Registered Valuer recognized by the Central Board of Direct Taxes under the Income- Tax Act, 1961. No such advance shall be paid on any plant and equipment of perishable nature and on any plant and equipment of a value less than Rs. 50,000/- Seventy five percent of such amount of advance shall be paid after the plant & equipment is brought to site and balance twenty five percent on successfully commissioning the same.

Leasing of equipment shall be considered at par with purchase of equipment and shall be covered by tripartite agreement with the following:

1. *Leasing company which gives certificate of agreeing to lease equipment to the contractor.*
2. *Engineer in Charge, and*
3. *The contractor*

This advance shall further be subject to the condition that such plant and equipment (a) are considered by the Engineer-in-Charge to be necessary for the works; (b) and are in working order and are maintained in working order; (c) hypothecated to the Government as specified by the Engineer-in-Charge before the payment of advance is released. The contractor shall not be permitted to remove from the site such hypothecated plant and equipment without the prior written permission of the Engineer-in-Charge. The contractor shall be responsible for maintaining such plant and equipment in good working order during the entire period of hypothecation failing which such advance shall be entirely recovered in lump sum. For this purpose, steel scaffolding and form work shall be treated as plant and equipment.

The contractor shall insure the Plant and Machinery for which mobilization advance is sought and given, for a sum sufficient to provide for their replacement at site. Any amounts not recovered from the insurer will be borne by the contractor.

iv) Interest & recovery

The mobilization advance and plant and machinery advance in (ii) & (iii) above bear simple interest at the rate of 10 percent per annum and shall be calculated from the date of payment to the date of recovery, both days inclusive, on the outstanding amount of advance. Recovery of such sums advanced shall be made by the deduction from the contractors bills commencing after first ten per cent of the gross value of the work is executed and paid, on pro-rata percentage basis to the gross of the work billed beyond 10% in such a way that the entire advance is recovered by the time eighty percent of the gross value of the contract is executed and paid, together with interest due on the entire outstanding amount upto the date of recovery of the installment.

- v) If the circumstances are considered reasonable by the Engineer-in-Charge, the period mentioned in (ii) and (iii) for request by the contractor in writing for grant of mobilization advance and plant and equipment advance may be extended in the discretion of the Engineer-in-Charge.

CLAUSE 10 C (NOT APPLICABLE)

~~Payment on account of Increase in Prices/Wages due to Statutory Order (s)~~

~~If after submission of the tender, the price of any material incorporated in the works (excluding the materials covered under Clause 10CA and not being a material supplied from the Engineer-in-Charge's stores in accordance with Clause 10 thereof) and/or wages of labour increases as a direct result of the coming into force of any fresh law, or statutory rule~~

~~or order (but not due to any changes of rate in sales tax/VAT, Central/State Excise/Custom Duty) beyond the prices/wages prevailing at the time of the last stipulated date of receipt of tenders including extensions, if any, for the work during contract period including the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, then the amount of the contract shall accordingly be varied and provided further that any such increase shall be limited to the price/wages prevailing at the time of stipulated date of completion or as prevailing for the period under consideration, whichever is less.~~

~~If after submission of the tender, the price of any material incorporated in the works (excluding the materials covered under Clause 10CA and not being a material supplied from the Engineer in Charge's stores in accordance with Clause 10 thereof) and/or wages of labour as prevailing at the time of last stipulated date of receipt of tender including extensions, if any, is decreased as a direct result of the coming into force of any fresh law or statutory rules or order (but not due to any changes of rate in sales tax/VAT, Central/State Excise/Custom Duty), Government shall in respect of materials incorporated in the works (excluding the materials covered under Clause 10CA and not being material supplied from the Engineer in Charge's stores in accordance with Clause 10 hereof) and/or labour engaged on the execution of the work after the date of coming into force of such law statutory rule or order be entitled to deduct from the dues of the contractor, such amount as shall be equivalent to the difference between the prices of the materials and/or wages as prevailed at the time of the last stipulated date for receipt of tenders including extensions if any for the work and the prices of materials and/or wages of labour on the coming into force of such law, statutory rule or order. This will be applicable for the contract period including the justified period extended under the provisions of clause 5 of the contract without any action under clause 2.~~

~~Engineer in Charge may call books of account and other relevant documents from the contractor to satisfy himself about reasonability of increase in prices of materials and wages.~~

~~The contractor shall, within a reasonable time of his becoming aware of any alteration in the price of any such materials and/or wages of labour, give notice thereof to the Engineer in Charge stating that the same is given pursuant to this condition together with all information relating thereto which he may be in position to supply.~~

~~For this purpose, the labour component of the work executed during period under consideration shall be the percentage as specified in Schedule F, of the value of work done during that period and the increase/decrease in labour shall be considered on the minimum daily wages in rupees of any unskilled adult male mazdoor, fixed under any law, statutory rule or order.~~

CLAUSE 10 CA (NOT APPLICABLE)

~~Payments due to variation in prices of materials after receipt of tender~~

~~If after submission of the tender, the price of materials mentioned in Schedule F increase / decreases beyond the price(s) prevailing at the time of the last stipulated date for receipt of tenders (including extensions, if any) for the work, then the amount of the contract shall accordingly be varied and provided further that any such variations shall be effected for stipulated period of Contract including the justified period extended under the provisions of Clause 5 of the Contract without any action under Clause 2.~~

~~However for work done during the justified period extended as above, it will be limited to indices prevailing at the time of stipulated date of completion or as prevailing for the period under consideration whichever is less.~~

~~The increase/decrease in prices of cement, steel reinforcement and structural steel shall be determined by the Price indices issued by the Director General (Works), CPWD. For other items provided in the Schedule 'F', this shall be determined by the All India Wholesale Price Indices of materials as published by Economic Advisor to Government of India, Ministry of Commerce and Industry and base price for cement, steel reinforcement and structural steel as issued under the authority of IITB and base price of other materials issued by concerned authority of IITB and as indicated in Schedule 'F' as valid on the last stipulated date of receipt of tender, including extension if any and for the period under consideration. In case, price index of a particular material is not issued by Ministry of Commerce and Industry, then the price index of nearest similar material as indicated in Schedule 'F' shall be followed. The amount of the contract shall accordingly be varied for all such materials and will be worked as per the formula given below for individual material:-~~

~~Adjustment for component of individual material~~

$$\frac{CI - CI_0}{CI_0} \times P \times Q = V$$

~~Where,~~

~~V = Variation in material cost i.e. increase / decrease in the amount in rupees to be paid or recovered.~~

~~P = Base Price of material as issued under authority of IITB and concerned zonal chief engineer as indicated in Schedule "F".~~

~~Q = Quantity of material brought at the site for bonafide use in the works since previous bill excluding such quantity consumed in the deviated qty of items beyond deviation limit and extra / substituted item paid / to be paid at rates derived on the basis of market rate unclear clause 12.2.~~

~~CI₀ ——— = Price index for cement, steel reinforcement bars and structural steel as issued by the DG(W), CPWD as valid on the last stipulated date of receipt of tenders including extensions, if any. For other items, if any, provided in Schedule 'F', All India Wholesale Price Index for the material as published by the Economic Advisor to Government of India, Ministry of Industry and Commerce as valid on the last stipulated date of receipt of tenders including extensions, if any.~~

~~CI ——— = Price index for cement, steel reinforcement bars and structural steel as issued under the authority of DG(W), CPWD for period under consideration. For other items, if any, provided in Schedule 'F', All India Wholesale Price Index for the material for period under consideration as published by Economic Advisor to Government of India, Ministry of Industry and Commerce.~~

~~Note: ——— (i) In respect of the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, the index prevailing at the time of stipulated date of completion or the prevailing index of the period under consideration, whichever is less, shall be considered.~~

~~————— Provided always that provisions of the preceding Clause 10 C shall not be applicable in respect of Materials covered in this Clause.~~

~~————— (ii) If during progress of work or at the time of completion of work, it is noticed that any material brought at site is in excess of requirement, then amount of escalation if paid earlier on such excess quantity of material shall be recovered on the basis of cost indices as applied at the time of payment of escalation or as prevailing at the time of effecting recovery, whichever is higher.~~

CLAUSE 10 CC (NOT APPLICABLE)

~~Payment due to Increase / Decrease in Prices / Wages after Receipt of Tender for Works~~

~~If the prices of materials (not being materials supplied or services rendered at fixed prices by the department in accordance with clause 10 & 34 thereof) and/or wages of labour required for execution of the work increase, the contractor shall be compensated for such increase as per provisions detailed below and the amount of the contract shall accordingly be varied, subject to the condition that that such compensation for escalation in prices and wages shall be available only for the work done during the stipulated period of the contract including the justified period extended under the provisions of clause 5 of the contract without any action under clause 2. However, for the work done during the justified period extended as above, the compensation as detailed below will be limited to prices/wages prevailing at the time of~~

~~stipulated date of completion or as prevailing for the period under consideration, whichever is less. No such compensation shall be payable for a work for which the stipulated period of completion is equal to or less than the time as specified in Schedule F. Such compensation for escalation in the prices of materials and labour, when due, shall be worked out based on the following provisions:-~~

- ~~i) The base date for working out such escalation shall be the last stipulated date of receipt of tenders including extension, if any.~~
- ~~ii) The cost of work on which escalation will be payable shall be reckoned as below:~~
 - ~~a) Gross value of work done upto this quarter: _____ (A)~~
 - ~~b) Gross Value of work done upto the last quarter: _____ (B)~~
 - ~~c) Gross value of work done since previous quarter (A-B) _____ (C)~~
 - ~~d) Full assessed value of Secured Advance (Excluding materials covered under Clause 10CA) fresh paid in this quarter: _____ (D)~~
 - ~~e) Full assessed value of Secured Advance (Excluding materials covered under Clause 10CA) recovered in this quarter. _____ (E)~~
 - ~~f) Full assessed value of Secured advance for which escalation is payable in this quarter (D-E): _____ (F)~~
 - ~~g) Advance payment made during this quarter _____ (G)~~
 - ~~h) Advance payment recovered during this quarter _____ (H)~~
 - ~~i) Advance payment for which escalation is payable in this quarter: _____ (I)~~
 - ~~j) Extra items/deviated quantities of items paid as per Clause 12 Based on prevailing market rates during this quarter: _____ (J)~~
 - ~~Then, $M = C + F + I - J$~~
 - ~~_____ $N = 0.85 M$~~
 - ~~k) Less cost of material supplied by the department as per Clause 10 and _____ (K)~~
~~recovered during the quarter:~~
 - ~~l) Less cost of services rendered at fixed charges as per Clause 34 and _____ (L)~~
~~recovered during the quarter~~

~~Cost of work for which escalation is applicable: $W = N - (K+L)$~~

~~Cost of work for which escalation is applicable: $W = N - (K+L)$~~

- ~~i) Components for materials (except cement, reinforcement bars, structural steel or other materials covered under clause 10 CA) labour, P.O.L., etc. shall be pre-determined for every work and incorporated in the conditions of contract attached to the tender papers included in Schedule 'F'. The decision of the Engineer in Charge in working out such percentage shall be binding on the contractors.~~
- ~~ii) The compensation for escalation for other materials (excluding cement, reinforcement bars, structural steel or other materials covered under clause 10 CA) and P.O.L. shall be worked as per the formula given below:-~~

~~(a) Adjustment for civil component (except cement, structural steel, reinforcement bars and other materials covered under clause 10CA) / electrical component of construction 'Materials'~~

$$V_m = W \times \frac{X_m \frac{MI - MI_0}{100}}{MI_0}$$

~~V_m = Variation in material cost i.e. increase or decrease in the amount in rupees to be paid or recovered.~~

~~W = Cost of Work done worked out as indicated in sub para (ii) of Clause 10CC.~~

~~X_m = Component of 'materials' (except cement, structural steel, reinforcement bars and other materials covered under clause 10CA) expressed as percent of the total value of work.~~

~~MI = All India Wholesale Price Index for all commodities as worked out on the basis of All India Wholesale Price Index for all commodities for the period under consideration as published by Economic Advisor to Govt. of India, Ministry of Industry & Commerce and applying weightages to the all commodities. (In respect of the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, the index prevailing at the time of stipulated date of completion or the prevailing index of the period under consideration, whichever is less, shall be considered.)~~

~~MI_0 = All India Wholesale Price Index for all commodities as worked out on the basis of All India Wholesale Price Index for all commodities valid on the last stipulated date of receipt of tender including extension, if any, as published by the Economic Advisor to Govt. of India, Ministry of Industry & Commerce and applying weightages to all commodities.~~

~~*Note: relevant component only will be applicable.~~

~~(b) Adjustment for component of 'POL'~~

$$V_f = W \times \frac{Z \frac{FI - FI_0}{100}}{FI_0}$$

~~V_f = Variation in cost of Fuel, Oil & Lubricant i.e. increase or decrease in the amount in rupees to be paid or recovered.~~

~~W = Cost of Work done worked out as indicated in sub para (ii) of Clause 10CC.~~

~~Z = Component of Fuel, Oil & Lubricant expressed as percent of the total value of work.~~

~~FI = All India Wholesale Price Index for Fuel, Oil & Lubricant for the period under consideration as published by Economic Advisor to Govt. of India, Ministry of Industry & Commerce, New Delhi. (In respect of the justified period extended under the provisions of clause 5 of the contract without any action under~~

~~clause 2, the index prevailing at the time of stipulated date of completion or the prevailing index of the period under consideration, whichever is less, shall be considered.)~~

~~FI_0 = All India Wholesale Price Index for Fuel, Oil & Lubricant valid on the last stipulated date of receipt of tender including extensions, if any.~~

~~v) The following principles shall be followed while working out the indices mentioned in Para (iv) above.~~

~~a) The compensation for escalation shall be worked out at quarterly intervals and shall be with respect to the cost of work done as per bills paid during the three calendar months of the said quarter. The first such payment shall be made at the end of three months after the month (excluding the month in which tender was accepted) and thereafter at three months' interval. At the time of completion of the work, the last period for payment might become less than 3 months, depending on the actual date of completion.~~

~~b) The index (MI/FI etc.) relevant to any quarter/period for which such compensation is paid shall be the arithmetical average of the indices relevant to the three calendar months. If the period up to date of completion after the quarter covered by the last such installment of payment, is less than three months, the index MI and FI shall be the average of the indices for the months falling within that period.~~

~~vi) The compensation for escalation for labour shall be worked out as per formula given below:-~~

$$V_L = W \times \frac{Y}{100} \times \frac{LI - LI_0}{LI_0}$$

~~V_L = Variation in labour cost i.e. amount of increase or decrease in the amount in rupees to be paid or recovered.~~

~~W = Value of Work done, worked out as indicated in sub para (ii) above.~~

~~Y = Component of labour expressed as percentage of the total value of the work.~~

~~LI = Minimum wage in rupees of an unskilled adult male mazdoor, fixed under any law, statutory rule or order as applicable on the last date of the quarter previous to the one under consideration. (In respect of the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, the minimum wage prevailing on the last date of quarter previous to the quarter pertaining to stipulated date of Completion or the minimum wage prevailing on the last date of the quarter previous to the one under consideration, whichever is less, shall be considered.)~~

~~L₀ = Minimum daily wage in rupees of an unskilled adult male mazdoor, fixed under any law, statutory rule or order as on the last stipulated date of receipt of tender including extension, if any.~~

~~vii) The following principles will be followed while working out the compensation as per sub para (vi) above:~~

- ~~a) The minimum wage of an unskilled male mazdoor mentioned in sub para (vi) above shall be the higher of the wage notified by Government of India, Ministry of Labour and that notified by the local administration both relevant to the place of work and the period of reckoning.~~
- ~~b) The escalation for labour also shall be paid at the same quarterly intervals when escalation due to increase in cost of materials and/or P.O.L. is paid under this clause. If such revision of minimum wages takes place during any such quarterly intervals, the escalation compensation shall be payable at revised rates only for work done in subsequent quarters;~~
- ~~c) Irrespective of variations in minimum wages of any category of labour, for the purpose of this clause, the variation in the rate for an unskilled adult male mazdoor alone shall form the basis for working out the escalation compensation payable on the labour component.~~

~~viii) In the event the price of materials and/or wages of labour required for execution of the work decrease/s, there shall be a downward adjustment of the cost of work so that such price of materials and/or wages of labour shall be deductible from the cost of work under this contract and in this regard the formula herein before stated under this Clause 10CC shall mutatis mutandis apply, provided that:~~

- ~~a) no such adjustment for the decrease in the price of materials and/or wages of labour aforementioned would be made in case of contracts in which the stipulated period of completion of the work is equal to or less than the time as specified in Schedule 'F'.~~
- ~~b) The Engineer in Charge shall otherwise be entitled to lay down the procedure by which the provision of this sub clause shall be implemented from time to time and the decision of the Engineer in Charge in this behalf shall be final and binding on the contractor.~~

ix) ~~Provided always that :-~~

a) ~~Where provisions of clause 10CC are applicable, provisions of clause 10C will not be applicable but provisions of clause 10CA will be applicable.~~

b) ~~Where provisions of clause 10CC are not applicable, provisions of clause 10C and 10CA will become applicable.~~

CLAUSE 10 D

Dismantled Material Institute Property

The contractor shall treat all materials obtained during dismantling of a structure, of the site for a work, etc. as Institute's property and such materials shall be disposed off to the best advantage of Institute according to the instructions in writing issued by the Engineer-in-Charge.

CLAUSE 11

Work to be executed in Accordance with Specifications, Drawings, Orders etc.

The contractor shall execute the whole and every part of the work in the most substantial and workmanlike manner both as regards materials and otherwise in every respect in strict accordance with the specifications. The contractor shall also conform exactly, fully and faithfully to the design, drawings and instructions in writing in respect of the work signed by the Engineer-in-Charge and the contractor shall be furnished free of charge one copy of the contract documents together with specifications, designs, drawings and instructions as are not included in the specifications specified in the contract or in any Bureau of Indian Standard or any other, published standard or code or, Schedule of Rates or any other printed publication referred to elsewhere in the contract.

The contractor shall comply with the provisions of the contract and with the care and diligence execute and maintain the works and provide all labour and materials, tools and plants including for measurements and supervisions of all works, structural plans and other things of temporary or permanent nature required for such execution and maintenance in so far as the necessity for providing these, is specified or is reasonably inferred from the contract. The contractor shall take full responsibility for adequacy, suitability and safety of all the works and methods of construction.

CLAUSE 12

Deviations / Variations Extent and Pricing

The Engineer-in-Charge shall have power (i) to make alternation in, omissions from, additions to, or substations for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the process of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any

instructions given to him in writing signed by the Engineer-in-Charge and such alternations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main work except as hereafter provided.

1. The time for completion of the works shall, in the event of any deviations resulting in additional cost over the tendered value sum being ordered, be extended, if requested by the contractor, as follows:
 - i) In the proportion which the additional cost of the altered, additional or substituted work, bears to the original tendered value plus.
 - ii) 25% of the time calculated in (i) above or such further additional time as may be considered reasonable by the Engineer-in-Charge.

2. Deviation, Extra Items and Pricing

In case of extra item(s) the contractor may within fifteen days of receipt of order occurrence of the item(s) claim rates, supported by proper analysis, for the work and Engineer-in-Charge shall within one month of the receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with rates so determined.

In the case of substituted item(s) (items that are taken up with partial substitution or in lieu of items of work in the contract), the rate for the agreement item (to be substituted) and substituted item shall also be determined in the manner as mentioned in the aforesaid para.

Deviation, Substituted Items, Pricing

- a) If the market rate for the substitute item so determined is more than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so increased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).
- b) If the market rate for the substituted item so determined is less than the market rate of the agreement item (to be substituted) the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so decreased to the to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted).

Deviation, Deviated Quantities, Pricing

In the case of contract items, substituted items, contract cum substituted items, which exceed the limits laid down in schedule F, the contractor may within fifteen days of receipt of order or occurrence of the excess, claim revision of the rates, supported by proper analysis, for the work in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates so claimed are in excess of the rates specified in the schedule of quantities the Engineer-in-Charge shall within one month of receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with rates so determined.

3. The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work in excess of the limits laid down in Schedule F, and the Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.
4. The contractor shall send to the Engineer-in-Charge once every three months an upto date account giving complete details of all claims for additional payments to which the contractor may consider himself entitled and of all additional work ordered by the Engineer-in-Charge which he has executed during the preceding quarter failing which the contractor shall be deemed to have waived his right. However, the IITB may authorize consideration of such claims on merits.
5. For the purpose of operation of Schedule F, the following works shall be treated as works relating to foundation unless & otherwise defined in the contract:
 - i) For buildings: All works up to 1.2 metres above ground level or up to floor 1 level whichever is lower.
 - ii) For abutments, piers and well staining : All works up to 1.2 m above the bed level.
 - iii) For retaining walls, wing walls, compound walls, chimneys, over head reservoirs/tanks and other elevated structures : All works up to 1.2 metres above the ground level.
 - iv) For reservoirs/tanks (other than overhead reservoirs/tanks) : All works up to 1.2 metres above the ground level.
 - v) For basement: All works up to 1.2 m above ground level or up to floor 1 level whichever is lower.
 - vi) For Roads, all items of excavation and filling including treatment of sub base.
6. Any operation incidental to or necessarily has to be in contemplation of tenderer while filling tender, or necessary for proper execution of the item included in the Schedule of quantities or in the schedule of rates mentioned above, whether or not, specifically indicated in the

description of the item and the relevant specifications, shall be deemed to be included in the rates mentioned above, whether or not, specially indicated in the description of the item and the relevant specifications, shall be deemed to be included in the rates quoted by the tenderer or the rate given in the said schedule of rates, as the case may be. Nothing extra shall be admissible for such operations.

CLAUSE 13

Foreclosure of Contract due to Abandonment or Reduction in scope of work

If at any time after acceptance of the tender, IITB shall decide to abandon or reduce the scope of the works for any reason whatsoever and hence not require the whole or any part of the works to be carried out, the Engineer-in-Charge shall give notice in writing to that effect to the contractor and the contractor shall act accordingly in the matter. The contractor shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the works in full but which he did not derive in consequence if the foreclosure of the whole or part of the works.

The contractor shall be paid at contract rates, full amount for works executed at site and, in addition, a reasonable amount as certified by the Engineer-in-Charge for the items hereunder mentioned which could not be utilized on the work to the full extent in view of the foreclosure:

- i) Any expenditure incurred on preliminary site work, e.g. temporary access roads, temporary labour huts, staff quarters and site office, storage accommodation and water storage tanks.
- ii) IITB shall have the option to take over contractor's materials or any part thereof either brought to site or of which the contractor is legally bound to accept delivery from suppliers (for incorporation in or incidental to the work) provided, however IITB shall be bound to take over the materials or such portions thereof as the contractor does not desire to retain. For materials taken over or to be taken over by IITB, cost of such materials as detailed by Engineer-in-Charge shall be paid. The cost shall, however, take into account purchase price, cost of transportation and determination or damage which may have been caused to material whilst in the custody of the contractor.
- iii) If any material supplied by IITB are rendered surplus, the same except normal wastage shall be returned by the contractor to IITB at rates not exceeding those at which these were originally issued less allowance for any deterioration or damage which may have been caused whilst the materials were in the custody of the contractor. In addition, the cost of transporting such materials from site to IITB stores, if so required by the Institute shall be paid.

- iv) Reasonable compensation for transfer of T & P from site to contractor's permanent stores or to his other works, whichever is less. If T & P are not transported to either of the said places, no cost of transportation shall be payable.
- v) Reasonable compensations for repatriation of contractor's site staff and imported labour to the extent necessary.

The contractor shall, if required by the Engineer-in-Charge furnish to him book of account, wages books, time sheets and other relevant documents and evidence as may be necessary to enable him to certify the reasonable amount payable under this condition.

The reasonable number of items on (i), (iv) and (v) above shall not be in excess of 2% of the cost of the work remaining incomplete on the date of closure, i.e. total stipulated cost of the work as per accepted tender less the cost of work actually executed under the contract and less the cost of contractor's materials at site taken over by the IITB as per item (ii) above. Provided always that against any payments due to the contractor on this account or otherwise, the Engineer-in-Charge shall be entitled to recover or be credited with any outstanding balances due from the contractor for advance paid in respect of any tool, plants and materials and any other sums which at the date of termination were recoverable by IITB from the contractor under the terms of the contract.

CLAUSE 14

Carrying out part work at risk & cost of contractor

If contractor:

- i) At any time makes default during currency of work or does not execute any part of the work with due diligence and continues to do so even after a notice in writing of 7 days in this respect from the Engineer-in-Charge; or
- ii) Commits default in complying with any of the terms and conditions of the contract and does not remedy it or takes effective steps to remedy it within 7 days even after a notice in writing is given in that behalf by the Engineer-in-Charge; or
- iii) Fails to complete the work(s) or items of work with individual dates of completion, on or before the date(s) so determined, and does not complete them within the period specified in the notice given in writing in that behalf by the Engineer-in-Charge.

The Engineer-in-Charge without invoking action under clause 3 may, without prejudice to any other right or remedy against the contractor which have either accrued or accrue

thereafter to IITB by a notice in writing to take the part work / part incomplete work of any item(s) out of his hands and shall have powers to:

- α) Take possession of the site and any materials, constructional plant, implements, stores, etc., thereon; and/or
- β) Carry out the part work / part incomplete work of any item(s) by any means at the risk and cost of the contractor.

The Engineer-in-Charge shall determine the amount, if any, is recoverable from the contractor for completion of the part work! Part incomplete work of any item(s) taken out of his hands and execute at the risk and cost of the contractor, the liability of contractor on account of loss or damage suffered by IITB because of action under this clause shall not exceed 10% of the tendered value of the work.

In determining the amount, credit shall be given to the contractor with the value of work done in all respect in the same manner and at the same rate as if it had been carried out by the original contractor under the terms of his contract. The value of contractor's materials taken over and incorporated in the work and use of plant and machinery belonging to the contractor. The certificate of the Engineer-in-Charge as to the value of work done shall be final and conclusive against the contractor provided always that action under this clause shall only be taken after giving notice in writing to the contractor. Provided also that if the expenses incurred by the department are less than the amount payable to the contractor at his agreement rates, the difference shall not be payable to the contractor.

Any excess expenditure incurred or to be incurred by IITB in completing the part work! part incomplete work of any item(s) or the excess loss of damages suffered or may be suffered by IITB as aforesaid after allowing such credit shall without prejudice to any other right or remedy available to IITB in law or per as agreement be recovered from any money due to the contractor or any account, and if such money is insufficient, the contractor shall be called upon in writing and shall be liable to pay the same within 30 days.

If the contractor fails to pay the required sum within the aforesaid period of 30 days, the Engineer-in-Charge shall have the right to sell any or all of the contractors' unused materials, constructional plant, implements, temporary building at site etc. and adjust the proceeds of sale thereof towards the dues recoverable from the contractor under the contract and if thereafter there remains any balance outstanding, it shall be recovered in accordance with the provisions of the contract.

In the event of above course being adopted by the Engineer-in-Charge the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagements or made any advance

on any account or with a View to the execution of the work or the performance of the contract.

CLAUSE 15

Suspension of Work

- i) The contractor shall, on receipt of the order in writing of the Engineer-in-Charge, (whose decision shall be final and binding on the contractor) suspend the progress of the works or any part thereof for such time and in such manner as the Engineer-in-Charge may consider necessary so as not to cause any damage or injury to the work already done or endanger the safety thereof for any of the following reasons:
 - a) On account of any default on the part of the contractor or,
 - b) For proper execution of the works or part thereof for reasons other than the default of the contractor, or
 - c) For safety of the works or part thereof.

The contractor shall, during such suspension, properly protect and secure the works to the extent necessary and carry out the instructions given in that behalf by the Engineer-in-Charge.

- ii) If the suspension is ordered for reasons (b) and (c) in sub-para (i) above:
 - a) The contractor shall be entitled to an extension of time equal to the period of every such suspension PLUS 25%, for completion of the item or group of items of work for which a separate period of completion is specified in the contract and of which the suspended work forms a part, and;
 - b) If the total period of all such suspensions in respect of an item or group of items or work for which a separate period of completion is specified in the contract exceeds thirty days, the contractor shall, in addition, be entitled to such compensation as the Engineer-in-Charge may consider reasonable in respect of salaries and/or wages paid by the contractor to his employees and labour at site, remaining idle during the period of suspension, adding thereto 2% to cover indirect expenses of the contractor submits his claim supported by details to the Engineer-in-Charge within fifteen days of the expire of the period of 30 days.
- iii) If the works or part thereof is suspended on the orders of the Engineer-in-Charge for more than three months at a time, except when suspension is ordered for reason (a) in sub-para (i) above, the contractor may after receipt of such order serve a written notice on the Engineer-in-Charge requiring permission within fifteen days from by the Engineer-in-Charge of the said notice, to proceed with the work or part thereof in regard to which progress has been suspended and if such permission is not granted within that time, the contractor , if he intends to treat the suspension, where it affects only a part if the works as an omission of such part by IITB or where it affects

whole of the works, as an abandonment of the works by IITB, shall within ten days of expiry of such period of 15 days give notice in writing of his intension to the Engineer-in-Charge. In the event of the contractor treating the suspension as an abandonment of the contract by IITB, he shall have no claim to payment of any compensation on account of any profit or advantage which he might have derived from the execution of the in full but which he could not derive in consequence of the abandonment. He shall, however, be entitled to such compensation, as the Engineer-in-Charge may consider reasonable, in respect of salaries and/or wages paid by him to his employees and labour at site, remaining idle in consequence adding to the total thereof 2% to cover indirect expenses of the contractor provided the contractor submits his claim supported by details to Engineer-in-Charge within 30 days of the expiry of the period of 3 months.

Provided further, that the contractor shall not be entitled to claim any compensation from IITB for the loss suffered by him on account of delay by IITB in the supply of materials in schedule 'B' where such delays is covered by difficulties relating to the supply wagons, force majeure including non-allotment of such materials by controlling authorities, acts of God, acts of enemies of the state/country or any reasonable cause beyond the control of the Institute.

CLAUSE 16

Action in case Work not done as per specifications

All works under or in course of execution or executed in pursuance of the contract shall at all times to be open and accessible to the inspection and supervision of the Engineer-in-Charge, his authorized subordinates in charge of the work and all the superior officers, officer of the Quality Control Organization of the department and of the Chief Technical Examiner's office, and the contractor shall, at all other times at which reasonable notice of the visit of such officers has been given to the contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing, present for the purpose. Orders given to the contractor's agent shall be considered to have the same force as if they had been given to the contractor himself.

If it shall appear to the Engineer-in-Charge or his authorized subordinates in charge of the work or the Chief Engineer in charge Quality Control or his subordinate officers or to the Chief technical Examiner or his subordinate officers, that any work has been executed with unsound, imperfect, or unskillful workmanship, or with materials or articles provided by him for the execution of the work which are unsound or of quality inferior to that contracted or otherwise not in accordance with the contract the contractor shall, on demand in writing which shall be made within twelve months (six months in the case of the work of costing Rs.10 lakh and below except road work) of the completion of the work from the Engineer-in-Charge specifying the work, materials or articles complained of notwithstanding that the

same may have been passed, certified and paid for forthwith rectify, or remove and reconstruct the work specified in whole or part, as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own charge and cost. In the event of the falling to do so within a period specified by the Engineer-in-Charge in his demand aforesaid, then the contractor shall be liable to pay compensation at the same rate as under clause 2 of the contract (for non-completion of the work in time) for this default.

In such case the Engineer-in-Charge may not accept the item of work at the rates applicable under the contract but may accept such items at reduced rates as the competent authority specified in schedule 'F' may consider reasonable during the preparation of on account bills or final bill if the item is so acceptable without detriment to the safety and utility of the item and the structure or he may reject the work outright without any payment and /or get it and other connected and incidental items rectified, or removed and re-executed at the risk and cost of the contractor. Decision of the Engineer-in-Charge to be conveyed in writing in respect of the same will be final and binding on the contractor.

CLAUSE 17

Contractor Liable for Damages, defects during maintenance period

If the contractor or his working people or servants shall break, deface, injure or destroy any part of building in which they may be working, or any building, road, road kerb, fence, enclosure, water pipe, cables, drains, electric or telephone post or wires, trees, grass or grassland, or cultivated ground contiguous to the premises on which the work or any part is being executed, or if any damage shall happen to the work while in progress, from any cause whatever or if any defect, shrinkage or other faults appear in the work within **twelve (12) months** after a certificate of its virtual completion shall have been given by the Engineer-in-Charge as aforesaid arising out of defect or improper, materials or workmanship the contractor shall upon receipt of a notice in writing on that behalf make the same good at his own expense or in default the Engineer-in-Charge cause the same to be made good by other workmen and deduct the expense from any sums that may be due or at any time thereafter may become due to the contractor or/from his security deposit or the proceeds of sale thereof or of a sufficient portion thereof. The security deposits of the contractor shall not be refunded before the expiry of **twelve (12) months** after the issue of the certificate of virtual completion of work, or till the final bill has been prepared and passed whichever is later.

In case of maintenance and operation works of E&M services, security deposit deducted from contractors shall be refunded within one month from the date of final payment or within one month from the date of completion of the maintenance contract whichever is earlier.

CLAUSE 18

Contractor to Supply Tools & Plants etc.

The contractor shall provide at his own cost all materials (except such special materials, if any, as may in accordance with the contract be supplied from the Engineer-in-Charge's stores), machinery tools and plants as specified in schedule 'F' in addition to this appliances implements other plant, ladders, cordage, tackle, scaffolding and temporary works required for the proper execution of the work, whether original, altered or substituted and whether included in the specifications or other documents forming part of the contract or referred to in these conditions or not, or which may be necessary for the purpose of satisfying or complying with the requirements of Engineer-in-Charge as to any matter as to which he is entitled to be satisfied, or which he is entitled to require together with carriage therefore to and from the work. The contractor shall also supply without charge the requisite number of persons with the means and materials necessary for the purpose of setting out works, and counting, weighting and assisting the measurement for examination at any time and from time to time of the work or materials. Falling his so doing the same may be provided by the Engineer-in-Charge at the expenses of the contractor and the expenses may be deducted, from any money due to the contractor under this contract or otherwise and/or from his security deposit or the proceeds of sale thereof, or of a sufficient portions thereof.

CLAUSE 18 A**Recovery of Compensation paid to Workmen**

In every case in which by virtue of the provisions sub-section (1) of Section 12, of the Workmen's Compensation Act, 1923, IITB is obliged to pay compensation to a workman employed by the contractor, in execution of the works, IITB will recover from the contractor, the amount of the compensation so paid; and without prejudice to the rights of the IITB under sub-section (2) of Section 12, of the said Act, IITB shall be at liberty to recover such amount or any part thereof by deduction it from the security deposit or from any sum due by IITB to the contractor whether under this contract or otherwise. IITB shall not be bound to contest any claim made against it under sub-section (1) of Section 12, of the said Act, except on the written request of the contractor and upon his giving to IITB full security for all costs for which IITB might become liable in consequence of contesting such claim.

CLAUSE 18 B**Ensuring payment and Amenities to workers if contractors fails**

In every case in which by virtue of the provisions of the contract labour (regulation and Abolition) Act, 1970 and of the Contract Labour (Regulations and Abolition) Central Rules, 1971, IITB is obliged to pay any amounts of wages to a workman employed by the contractor in execution of the works, or to incur any expenditure in providing welfare and health amenities required to be provided under the above said Act and the rules under Clause 19H or under the C.P.W.D. Contractor's Labour Regulations, or under the Rules framed by Government from time to time for the protection of health and sanitary arrangements from time to time for the protection of health and sanitary arrangements for workers employed by IITB Contractors, IITB will recover from the contractor, the amount of wages so paid or

the amount of expenditure so paid or the amount of expenditure so incurred; and without prejudice to the rights of the IITB under sub-section (2) of Section 20, and sub-section (4) of Section 21, of the Contract Labour (Regulation and Abolition) Act, 1970, IITB shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by IITB to the contractor whether under this contract or otherwise IITB shall not be bound to contest any claim made against it under sub-section (1) of Section 20, sub-section (4) of Section 21, of the said Act, except on the written request of the contractor and upon his giving to the IITB full security for all costs for which IITB might become liable in contesting such claim.

CLAUSE 19

Labour Laws to be complied by the Contractor

The contractor shall obtain a valid license under the Contract Labour (R&A) Act 1970, and the Contract Labour (Regulation and Abolition) Central Rules, 1971, before the commencement of the work, and continue to have a valid license until the completion of the work. The contractor shall also abide by the provisions of the Child Labour (Prohibition and Regulation) Act, 1986.

The contractor shall also comply with the provisions of the building and other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 and the building and other Construction Workers Welfare Cess Act, 1996.

Any failure to fulfill these requirements shall attract the penal provisions of this contract arising out of the resultant non-execution of the work.

CLAUSE 19A

No labour below the age of fourteen years shall be employed on the work.

CLAUSE 19B

Payment of Wages

- i) The contractor shall pay to labour employed by him directly or through subcontractors, wages not less than fair wages as per the provisions of the Contract labour (Regulation and Abolition) Act 1970 and the contract Labour (Regulation and Abolition) Central Rules, 1971, wherever applicable.
- ii) The contractor shall, notwithstanding the provisions of any contract to the contrary cause to be paid fair wage to labour indirectly engaged on the work, including any labour engaged by his sub-contractors in connection with the said work, as if the labour had been immediately employed by him.

- iii) In respect of all labour directly or indirectly employed in the works for performance of the contractor's part of this contract, the contractor's shall comply with or cause to be complied with the contractor's Labour Regulations made by IITB from time to time in regard to payment of wages, wage period, deductions from wages recovery of wages not paid and deductions unauthorizedly made, maintenance of wage books or wage slips, publication of scale of wages and other terms of employment, inspection and submission of periodical returns and all other matters of the like nature or as per the provisions of the Contract Labour (Regulation and Abolition) Act 1970, and the Contract Labour (Regulation and Abolition) Central Rules, 1971, wherever applicable.
- iv)
 - α) The Engineer-in-Charge concerned shall have the right to deduct from the moneys due to the contractor any sum required or estimated to be required or estimated to be required for making good the loss suffered by a worker or workers by reason of non fulfillment of the conditions of the contract for the benefit of the workers, non-payment of wages or of deductions made from his or their wages which are not justified by their terms of the contract or non-observance of the Regulations.
 - β) Under the provision of Minimum Wages (Central) Rules 1950, the contractor is bound to allow to the labours directly or indirectly employed in the works one day rest for 6 days continuous work and pay wages at the same rate as for duty. In the event of default, the Engineer-in-Charge shall have the right to deduct the sum or sums not paid on account of wages weekly holidays to any labours and pay the same to the persons entitled thereto from any money due to the contractor by the Engineer-in-Charge concerned.
- v) The contractor shall comply with the provisions of the Payment of Wages Act, 1936, Minimum wages Act, 1948, Employees Liability Act, 1938, Workmen's Compensation Act, 1923, Industrial Disputes Act, 1947, Maternity Benefits Act, 1961, and the Contractor's Labour (Regulation and Abolition) Act 1970, or the modifications thereof or any other laws relating thereto and the rules made there under from time to time.
- vi) The contractor shall indemnify and keep indemnified IITB against payments to be made under and for the observance of the laws aforesaid and the IITB Contractor's Labour Regulations without prejudice to his right to claim indemnity from his sub-contractors.
- vii) The laws aforesaid shall be deemed to be a part of this contract and any breach thereof shall be deemed to be a breach of this contract.

- viii) Whatever is minimum wage for the time being, or if the wage payable is higher than such wage, such wage shall be paid by the contractor to the workmen directly without the intervention of Jamadar and that Jamadar shall not be entitled to deduct or recover any amount from the minimum wage payable to the workmen as and by way of commission or otherwise.
- ix) The contractor shall ensure that no amount by way of commission or otherwise is deducted or recovered by the Jamadar from the wage of workmen.

CLAUSE 19C

In respect of all labour directly or indirectly employed in the work of the performance of the contractor's part of this contract, the contractor shall at his own expense arrange for the safety provisions as per Safety Code framed from time to time and shall at his own expense provide for all facilities in connection therewith. In case the contractor fails to make arrangement and provide necessary facilities as aforesaid, he shall be liable to pay a penalty of Rs. 200/- for each default and in addition the Engineer-in-Charge shall be at liberty to make arrangement and provide facilities as aforesaid and recover the costs incurred in that behalf from the contractor.

CLAUSE 19D

The contractor shall submit by the 4th and 19th of every month, to the Engineer-in-Charge a true statement showing in respect of the second half of the preceding month and the first half of the current month respectively:-

1. The number of labours employed by him on the work,
2. Their working hours,
3. The wages paid to them,
4. The accidents that occurred during the said fortnight showing the circumstances under which they happened and the extent of damage and injury caused by them, and
5. The number of female workers who have been allowed maternity benefit according to Clause 19F and the amount paid to them.

Failing which the contractor shall be liable to pay to IITB a sum not exceeding Rs. 200/- for each default or materially incorrect statement. The decision of the Divisional Officer shall be final in deduction from any bill due to the contractor the amount levied as fine and be binding on the contractor.

CLAUSE 19E

In respect of all labour directly or indirectly employed in the works for the performance of the contractor's part of this contract, the contractor shall comply with or cause to be

complied with all the rules framed by Government from time to time for the protection of health and sanitary arrangements for workers employed by the Central Public Works department and its contractors.

CLAUSE 19F

Leave and pay during leave shall be regulated as follows:

1. Leave :
 - (i) in the case of delivery - maternity leave not exceeding 8 weeks, 4 weeks up to and including the day of delivery and 4 weeks following that day,
 - (ii) in the case of miscarriage - upto 3 weeks from the date of miscarriage
2. Pay :
 - (i) in the case of delivery - leave pay during maternity leave will be at the rate of the women's average daily earnings, calculated on total wages earned on the days when full time work was done during a period of three months immediately preceding the date on which she gives notice that she expects to be confined or at the rate of Rupee one only a day whichever is greater.
 - (ii) in the case of miscarriage - leave pay at the rate of average daily earning calculated on the total wages earned on the days when full time work was done during a period of three months immediately preceding the date of such miscarriage.
3. Conditions for the grant of Maternity Leave:

No maternity leave benefit shall be admissible to a woman unless she has been employed for a total period of not less than six months immediately preceding the date on which she proceeds on leave
4. The contractor shall maintain a register of Maternity (Benefit) in the Prescribed Form as shown in appendix -I and II, and the same shall be kept at the place of work

CLAUSE 19G

In the event of the contractor(s) committing a default or breach of any of the provisions of the Contractor's Labour Regulations and Model Rules for the protection of health and sanitary arrangements for the workers as amended from time to time or furnishing any information or submitting or filing any statement under the provisions of the above Regulations and Rules which is materially incorrect, he/they shall, without prejudice to any other liability, pay to the IITB a sum not exceeding Rs.200/- for every default, breach or furnishing, making, submitting, filing such materially incorrect statements and in the event of the contractor(s) defaulting continuously in this respect, the penalty may be enhanced to Rs.200/- per day for each day of default subject to a maximum of 5 percent of the estimated cost of the work put to tender. The decision of the Engineer-in-Charge shall be final and binding on the parties.

Should it appear to the Engineer-in-Charge that the contractor(s) is/are not properly observing and complying with the provisions of the Contractor's Labour Regulations and Model Rules and the provisions of the Contract Labour (Regulation and Abolition) Act 1970, and the Contract Labour (R&A) Central Rules 1971, for the protection of health and sanitary arrangements for work-people employed by the contractor(s) (hereinafter referred as "the said Rules") the Engineer-in-Charge shall have power to give notice in writing to the contractor(s) requiring that the said Rules be complied with and the amenities prescribed therein be provided to the work-people within a reasonable time to be specified in the notice. If the contractor(s) shall fail within the period specified in the notice to comply with and/observe the said Rules and to provide the amenities to the work-place as aforesaid, the Engineer-in-Charge shall have the power to provide the amenities hereinbefore mentioned at the cost of the contractor(s). the contractor(s) shall erect, make and maintain at his/her own expense and to approved standards all necessary huts and sanitary arrangements required for his/their work-people on the site in connection with the execution of the works, and if the same shall not have been erected or constructed, according to approved standards, the Engineer-in-Charge shall have power to give notice in writing to the contractor(s) requiring that the said huts and sanitary arrangements be remodeled and/or reconstructed according to approved standards, and if the contractor(s) shall fail to remodel or reconstruct such huts and sanitary arrangements according to approved standards within the period specified in the notice, the Engineer-in-Charge shall the power to remodel or reconstruct such huts and sanitary arrangements according to approved standards at the cost of the contractor(s).

CLAUSE 19 H (NOT APPLICABLE)

~~The contractor(s) shall at his/their own cost provide his/their labour with a sufficient number of huts (hereinafter referred to as the camp) of the following specifications on a suitable plot of land to be approved by the Engineer in Charge.~~

- ~~i) — a) The minimum height of each hut at the eaves level shall be 2.10m (7 ft.) and the floor area to be provided will be at the rate of 2.7 sq.m. (30 sq.ft.) for each member of the worker's family staying with the labourer.~~
- ~~b) The contractor(s) shall in addition construct suitable cooking places having a minimum area of 1.80m x 1.50m (6'x5') adjacent to the hut for each family.~~
- ~~c) The contractor(s) shall also construct temporary latrines and urinals for the use of the labourers each on the scale of not less than four per each one hundred of the total strength, separate latrines and urinals being provided for women.~~
- ~~d) The contractor(s) shall construct sufficient number of bathing and washing places, one unit for every 25 persons residing in the camp. These bathing and washing places shall be suitably screened.~~

- ii) ~~a) All the huts shall have walls of sun dried or burnt bricks laid in mud mortar or other suitable local materials as may be approved by the Engineer in Charge. In case of sun dried bricks, the walls should be plastered with mud gobri on both sides. The floor may be kutchra but plastered with mud gobri and shall be at least 15 cm (6") above the surrounding ground. The roofs shall be laid with thatch or any other materials as may be approved by the Engineer in Charge and the contractor shall ensure that throughout the period of their occupation, the roofs remain water tight.~~
~~b) The contractor(s) shall provide each hut with proper ventilation.~~
~~c) All doors, windows, and ventilators shall be provided with suitable leaves for security purposes.~~
~~c) There shall be kept an open space of at least 7.2m (8 yards) between the rows of huts which may be reduced to 6m (20 ft.) according to the availability of site with the approval of the Engineer in Charge. Back to back construction will be allowed.~~
- iii) ~~**Water Supply** The contractor(s) shall provide adequate supply of water for the use of labourers. The provisions shall not be less than two gallons of pure and wholesome water per head per day for drinking purposes and three gallons of clean water per head per day for bathing and washing purposes. Where piped water supply is available, supply shall be at stand posts and where the supply is from wells or river, tanks which may be of metal or masonry, shall be provided. The contractor(s) shall also at his/ their own cost make arrangements for laying pipe lines for water supply to his/ their labour camp from the existing mains wherever available, and shall pay all fees and charges therefore.~~
- iv) ~~The site selected for the camp shall be high ground, removed from jungle.~~
- v) ~~**Disposal of Excreta** The contractor(s) shall make necessary arrangements for the disposal of excreta from the latrines by trenching or incineration which shall be according to the requirements laid down by the Local Health Authorities. If trenching or incineration is not allowed, the contractor(s) shall make arrangements for the removal of the excreta through the Municipal Committee/authority and inform it about the number of labourers employed so that arrangements may be made by such Committee/authority for the removal of the excreta. All charges on this account shall be borne by the contractor and paid direct by him to the Municipality/authority. The contractor shall provide one sweeper for every eight seats in case of dry system.~~
- vi) ~~**Drainage** The contractor(s) shall provide efficient arrangements for draining away sullage water so as to keep the camp neat and tidy.~~
- vii) ~~The contractor(s) shall make necessary arrangements for keeping the camp area sufficiently lighted to avoid accidents to the workers.~~

viii) ~~**Sanitation** The contractor(s) shall make arrangements for conservancy and sanitation in the labour camps according to the rules of the Local Public Health and Medical Authorities.~~

CLAUSE 19 I

The Engineer-in-Charge may require the contractor to dismiss or remove from the site of the work any person or persons in the contractors employ upon the work who may be incompetent or misconduct himself and the contractor shall forthwith comply with such requirements.

CLAUSE 19 J

It shall be the responsibility of the contractor to see that the building under construction is not occupied by anybody un-authorizely during construction, and is handed over to the Engineer-in-Charge with vacant possession of complete building. If such building though completed is occupied illegally, then the Engineer-in-Charge shall have the option to refuse to accept the said building/buildings in that position. Any delay in acceptance on this account will be treated as the delay in completion and for such delay a levy upto 5% of tendered value of work may be imposed by the IITB whose decision shall be final both with regard to the justification and quantum and be binding on the contractor.

However, IITB, through a notice, may require the contractor to remove the illegal occupation any time on or before construction and delivery.

CLAUSE 19 K

Employment of skilled / semi skilled workers

The contractor shall, at all stages of work, deploy skilled/semi skilled tradesmen who are qualified and possess certificate in particular trade from CPWD Training Institute/Industrial Training Institute/National Institute of construction Management and Research (NICMAR) National Academy of Construction, CIDC or any similar reputed and recognized Institute managed/certified by State/Central Government. The number of such qualified tradesmen shall not be less than 20% of total skilled/semi skilled workers required in each trade at any stage of work. The contractor shall submit number of man days required in respect of each trade, its scheduling and the list of qualified tradesmen alongwith requisite certificate from recognized Institute to Engineer-in-Charge for approval. Notwithstanding such approval, if the tradesmen are found to have inadequate skill to execute the work of respective trade, the contractor shall substitute such tradesmen within two days of written from Engineer-in-Charge or failure to deploy qualified tradesmen will attract a compensation to be paid by contractor at the rate of Rs.100 per such tradesmen per day. Decision of Engineer-in-Charge

as to whether particular tradesmen possess requisite skill and amount of compensation in case of default shall be final and binding.

Provided always, that the provisions of this clause, shall be not be applicable for works with estimated cost put to tender being less than Rs.5 crores.

CLAUSE 20

Minimum Wages Act to be complied with

The contractor shall comply with all the provisions of the Minimum Wages Act, 1948, and Contract Labour (Regulation and Abolition) Act, 1947, amended from time to time and rules framed thereunder and other labour laws affecting contract labour that may be brought into force from time to time.

CLAUSE 21

Work not to be sublet. Action in case of insolvency

The contract shall not be assigned or sublet without the written approval of the Engineer-in-Charge. And if the contractor shall assign or sublet his contract, or attempt to do so, or become insolvent or commence any insolvency proceedings or make any composition with his creditors or attempt to do so, or if any bribe, gratuity, gift, loan, perquisite, reward or advantage pecuniary or otherwise, shall either directly or indirectly, be given, promised or offered by the contractor, or any of his servants or agent to any public officer or person in the employ of IITB in any way relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract, the Engineer-in-Charge on behalf of the IITB shall have power to adopt the course specified in Clause 3 hereof in the interest of IITB and in the event of such course being adopted, the consequences specified in the said Clause 3 shall ensure.

CLAUSE 22

All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the use of IITB without reference to the actual loss or damage sustained and whether or not any damage shall have been sustained.

CLAUSE 23

Changes in firm's Constitution to be intimated

Where the contractor is a partnership firm, the previous approval in writing of the Engineer-in-Charge shall be obtained before any change is made in the constitution of the firm. Where the contractor is an individual or a Hindu undivided family business concern such approval as aforesaid shall likewise be obtained before the contractor enters into any partnership agreement where under the partnership firm would have the right to carry out the works hereby undertaken by the contractor. If previous approval as aforesaid is not obtained, the contract shall be deemed to have been assigned in contravention of Clause 21 hereof and

the same action may be taken, and the same consequences shall ensure as provided in the said Clause 21.

CLAUSE 24

All works to be executed under the contract shall be executed under the direction and subject to the approval in all respects of the Engineer-in-Charge who shall be entitled to direct at what point or points and in what manner they are to be commenced, and from time to time carried on.

CLAUSE 25

Settlement of Disputes & Arbitration

Except where otherwise provided in the contract, all questions and disputes relating to the meaning of the specifications, design, 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 hereinafter.

- 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 EIC 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 EIC, the contractor may, within 15 days of the receipt of EIC's decision, appeal to the Director IITB 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 shall give his decision within 30 days of receipt of contractor's appeal. If the contractor is dissatisfied with this decision, give notice to the Director 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 Chairman Board of Governors Indian Institute of Technology Bombay. 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 alongwith the notice appointment of arbitrator and giving reference to the rejection by the Director the appeal.

It is also a term of this contract that no person other than a person appointed by such Chairman Board of Governors IITB 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 form 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 IITB 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 thereunder 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 cost of the reference and of the award (including the fees, if any, of the arbitrator) shall be at 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 costs to be so paid.

- iii) In case of any litigations under this Contract, the courts of law in the city of Mumbai only, shall have jurisdiction.

CLAUSE 26

Contractor to indemnify IITB against Patent Rights

The contractor shall fully indemnify and keep indemnified the IITB against any action, claim or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties which may be payable in respect of any article or part thereof included in the contract. In the event of any claims made under or action brought against IITB in respect of any such matters as aforesaid, the contractor shall be immediately notified thereof and the contractor shall be at liberty, at his own expense, to settle any dispute or to conduct any litigation that may arise therefrom, provided that the contractor shall not be liable to indemnify the IITB if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the Engineer-in-Charge in this behalf.

CLAUSE 27

Lump sum Provisions in Tender

When the estimate on which a tender is made includes lump sum in respect of parts of the work, the contractor shall be entitled to payment in respect of the items of work involved or the part of the work in question at the same rates as are payable under this contract for such items, or if the part of the work in question is not, in the opinion of the Engineer-in-Charge payable of measurement, the Engineer-in-Charge may at his discretion pay the lump-sum amount entered in the estimate, and the certificate in writing of the Engineer-in-Charge shall be final and conclusive against the contractor with regard to any sum or sums payable to him under the provisions of the clause.

CLAUSE 28

Action where no Specifications are specified

In the case of any class of work for which there is no such specifications as referred to in Clause 11; such work shall be carried out in accordance with the Bureau of Indian Standard Specifications. In case there are no such specifications in Bureau of Indian Standards, the work shall be carried out as per manufacturer's specifications, if not available then as per District Specifications. In case there are no such specifications as required above, the work; shall be carried out in all respects in accordance with the instructions and requirements of the Engineer-in-Charge.

CLAUSE 29

With-holding and lien in respect of sums due from contractor

- i) Whenever any claim or claims for payment of a sum of money arises out of or under the contract or against the contractor, the Engineer-in-Charge or the Institute shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security, if any deposited by the contractor and for the purpose aforesaid, the Engineer-in-Charge or the Institute shall be entitled to withhold the security deposit, if any, furnished as the case may be and also have a lien over the, same pending finalization or adjudication of any such claim. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the contractor, the Engineer-in-Charge or the Institute shall be entitled to withhold and have a lien to retain to the extent of such claimed amount or amounts referred to above, from any sum or sums found payable or which may at any time thereafter become payable to the contractor under the same contract or any other contract with the Engineer-in-Charge or any contracting person through the Engineer-in-Charge pending finalization of adjudication of any such claim.

It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to above by the Engineer-in-Charge or IITB will be kept withheld or retained as such by the Engineer-in-Charge or IITB till the claim arising out of or under the contract is determined by the arbitrator (if the contract is governed by the arbitration clause) by the competent court, as the case may be and that the contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to above and duly notified as such to the contractor. For the purpose of this clause, where the contractor is a partnership firm or a limited company, the Engineer-in-Charge or the Institute shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner/limited company as the case may be, whether in his individual capacity or otherwise.

- ii) IITB shall have the right to cause an audit and technical examination of the works and the final bills of the contractor including all supporting vouchers, abstract, etc., to be made after payment of the final bill and if as a result of such audit and technical examination any sum is found to have been overpaid in respect of any work done by the contractor under the contract or any work claimed to have been done by him under the contract and found not to have been executed, the contractor shall be liable to refund the amount of over-payment and it shall be lawful for IITB to recover the same from him in the manner prescribed in sub-clause (i) of this clause or in any other manner legally permissible; and if it is found that the contractor was paid less than what was due to him under the contract in respect of any work executed by him under it, the amount of such under payment shall be duly paid by IITB to the contractor, without any interest thereon whatsoever.

Provided that the IITB shall not be entitled to recover any sum overpaid, nor the contractor shall be entitled to payment of any sum paid short where such payment has been agreed upon between the Director IITB or EIC on the one hand and the contractor on the other under any term of the contract permitting payment for work after assessment by the Director or the EIC.

CLAUSE 29A

Lien in respect of claims in other Contracts

Any sum of money due and payable to the contractor (including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the Engineer-in-Charge or the Institute or any other contracting person or persons through Engineer-in-Charge against any claim of the Engineer-in-Charge or IITB or such other person or persons in respect of payment of a sum of money arising out of or under any other contract made by the contractor with the Engineer-in-Charge or the Institute or with such other person or persons.

It is an agreed term of the contract that the sum of money so withhold or retained under this clause by the Engineer-in-Charge or the Institute will be kept withheld or retained as such by the Engineer-in-Charge or the Institute or till his claim arising out of the same contract or any other contract is either mutually settled or determined by the arbitration clause or by the competent court, as the case may be and that the contractor shall have no claim for interest or damages whatsoever on this account or on any other ground in respect of any sum of money withheld or retained under this clause and duly notified as such to the contractor.

CLAUSE 30 (NOT APPLICABLE)

Employment of coal mining or controlled area labour not permissible

The contractor shall not employ coal mining or controlled area labour falling under any category whatsoever on or in connection with the work or recruit labour from area within a

radius of 32 Km (20 miles) of the controlled area. Subject as above the contractor shall employ imported labour only i.e., deposit imported labour or labour imported by contractors from area, from which import is permitted.

Where ceiling price for imported labour has been fixed by State or Regional Labour Committees not more than that ceiling price shall be paid to the labour by the contractor.

The contractor shall immediately remove any labourer who may be pointed out by the Engineer-in-Charge as being a coal mining or controlled area labourer. Failure to do so shall render the contractor liable to pay to IITB a sum calculated at the rate of Rs.10/- per day labourer. The certificate of the Engineer-in-Charge about the number of coal mining or controlled area labourer and the number of days for which they worked shall be final and binding upon all parties to this contract.

It is declared and agreed between the parties that the aforesaid stipulation in this clause is one in which the public are interested within the meaning of the exception in Section 74 of Indian Contract Act, 1872.

Explanation: - Controlled Area means the following areas:

Districts of Dhanbad, Hazaribagh, Jamtara – a Sub-Division under Santhal Pargana Commissionery, Districts of Bankura, Birbhum, Burdwan, District of Bilaspur.

Any other area which may be declared a Controlled Area by or with the approval of the Central Government

CLAUSE 31

Unfiltered water supply

The contractor(s) shall make his/their own arrangements for water required for the work and nothing extra will be paid for the same. This will be subject to the following conditions.

- i) That the water used by the contractor(s) shall be fit for constructions purposes to the satisfaction of the Engineer-in-Charge.
- ii) The Engineer-in-Charge shall make alternative arrangements for supply of water at the risk and cost of contractor(s) if the arrangements made by the contractor(s) for procurement of water are in the opinion of the Engineer-in-Charge, unsatisfactory.

CLAUSE 31 A

Water supply, if available from IITB

Water if available may be supplied to the contractor by the Institute subject to the following conditions

- i) The water is available at site without charges.
- ~~ii) The contractor(s) shall make his/their own arrangement of water connection, calibrated meter and laying of pipelines from existing main of source of supply.~~
- ~~iii) Non availability of water for any reasons whatsoever shall not constitute any reason for delay, extra claims or additional cost incurred for the performance of this contract.~~
- iv) The Institute does not guarantee to maintain uninterrupted supply of water and it will be incumbent on the contractor(s) to make alternative arrangements for water at his/their own cost in the event of any temporary break down in the IITB water main so that the progress of his/their work is not held up for want of water. No claim or damage or refund of water charges will be entertained on account of such break down.
- v) ELECTRIC SUPPLY FOR WORKS, LABOUR HUTMENTS, ETC.
 - a) Electric power both for construction and lighting shall be made available by the Employer at one point within site or near site on chargeable basis as actual shall be recovered progressively from R.A. Bills, minimum power factor 0.95, power factor below than 0.95, penalty as per MSU tariff. The contractor shall arrange at his own cost the necessary calibrated meter, switch board, and other switch gears, etc., and shall be responsible for their maintenance.
 - b) Non availability of power for any reason whatsoever shall not constitute any reason for delay, extra claims or additional cost incurred for the performance of this contract.
 - c) Further distribution shall be done by the Contractor at his cost as per approved layout. He shall provide required clearances for overhead lines to facilitate easy

movement of machinery. These overhead lines shall be shifted and rerouted at the contractor's cost during execution of work if the same are found to obstruct any other work of any agency working at site or requires to be shifted due to unforeseen reasons.

- d) On completion of the work, the contractor shall to the satisfaction of the EIC, remove all wiring installed by him and make good, any disturbance or damage done.
- e) The contractor shall employ a certified and licensed Electrician for carrying out this work.

CLAUSE 32

Alternate water arrangements

- i) Where there is no piped water supply arrangement and the water is taken by the contractor from the wells or hand pump constructed by the Institute no charge shall be recovered from the contractor on that account. The contractor shall, however, draw water at such hours of the day that it does not interfere with the normal use for which the hand pumps and wells are intended. He will also be responsible for all damage and abnormal repairs arising out of his use, the cost of which shall be recoverable from him. The Engineer-in-Charge shall be final authority to determine the cost recoverable from the contractor on this account and his decision shall be binding on the contractor.
- ii) The contractor shall be allowed to construct temporary wells in IITB land for taking water for construction purposes only after he has got permission of the Engineer-in-Charge in writing. No charges shall be recovered from the contractor on this account, but the contractor shall be required to provide necessary safety arrangements to avoid any accidents or damage to adjacent buildings, roads and service lines. He shall be responsible for any accidents or damage caused due to construction and subsequent maintenance of the wells and shall restore the ground to its original condition after the wells are dismantled on completion of the work.

CLAUSE 33

Return of Surplus materials

Notwithstanding anything contained to the contrary in this contract, where any materials for the execution of the contract are procured with the assistance of IITB either by issue from IITB stocks or purchase made under orders or permits or licenses issued by IITB, the contractor shall hold the said materials economically and solely for the purpose of the contract and not dispose of them without the written permission of the IIT and return, if

required by the Engineer-in-Charge, all surplus or un serviceable materials that may be left with him after the completion of the contract or at its termination for any reason whatsoever on being paid or credited such price as the Engineer-in-Charge shall determine having due regard to the condition of the materials. The price allowed to the contractor however shall not exceed the amount charged to him excluding the element of storage charges. The decision of the Engineer-in-Charge shall be final and conclusive. In the event of breach of the aforesaid condition, the contractor shall in addition to throwing himself open to action for contravention of the terms of the license or permit and/or for criminal breach of trust, be liable to IITB for all moneys, advantages or profits resulting or which in the usual course would have resulted to him by reason of such breach.

CLAUSE 34

Hire of Plant & Machinery

- i) The contractor shall arrange at his own expense all tools, plant, machinery and equipment (hereinafter referred to as T&P) required for execution of the work except for the Plant & machinery listed in Schedule 'C and stipulated for issue to the contractor. If the contractor requires any item of T&P stipulated for issue, the IITB will, if such item is available, hire it to the contractor at rates to be agreed upon between him and the Engineer-in-Charge. In such a case all the conditions hereunder for issue of T&P shall also be applicable to such T&P as is agreed to be issued.
- ii) Plant and Machinery when supplied on hire charges shown in Schedule 'C shall be made over and taken back at the departmental equipment yard/shed shown in Schedule 'C and the contractor shall bear the cost of carriage from the place of issue to the site of work and back. The contractor shall be responsible to return the plant and machinery with condition in which it was handed over to him, and he shall be responsible to return the plant and machinery with condition in which it was handed over to him, and he shall be responsible for all damage caused to the said plant and machinery at the site of work or elsewhere in operation and otherwise during transit including damage to or loss of plant and for all losses due to his failure to return the same soon after the completion of the work for which it was issued. The Engineer-in-Charge shall be the sole judge to determine the liability of the contractor and its extent in this regard and his decision shall be final and binding on the contractor.
- iii) The plant and machinery as stipulated above will be issued as and when available and if required by the contractor. The contractor shall arrange his programme of work according to the availability of the plant and machinery and no claim, whatsoever, will be entertained from him for any delay in supply by the IITB.

- iv) The hire charges shall be recovered at the prescribed rates from and inclusive of the date the plant and machinery made over upto and inclusive of the date of the return in good order even though the same may not have been working for any cause except major breakdown due to no fault of the contractor or faulty use requiring more than three working days continuously (excluding intervening holidays and Sundays) for bringing the plant in order. The contractor shall immediately intimate in writing to the Engineer-in-Charge when any plant or machinery gets out of order requiring major repairs as aforesaid. The Engineer-in-Charge shall record the date and time of receipt of such intimation in the log sheet of the plant or machinery. Based on this if the breakdown before lunch period or major breakdown will be computed considering half a day's breakdown on the day of complaint. If the breakdown occurs in the post lunch period of major breakdown will be computed starting from the next working day. In case of any dispute under this clause the decision of the Director, IITB shall be final and binding on the contractor.
- v) The hire charges shown above are for each day of 8 hours (inclusive of the one hour break) or part thereof.
- vi) Hire charges will include service of operating staff as required and also supply of lubricating oil and stores for cleaning purposes. Power fuel of approved type, firewood, kerosene oil etc., for running the plant and machinery and also the full time chowkidar for guarding the plant and machinery against any loss or damage shall be arranged by the contractor who shall be fully responsible for the safeguard and security of plant and machinery. The contractor shall on or before the supply of plant and machinery sign an agreement indemnifying the IITB against any loss or damage caused to the plant and machinery either during transit or at site of work.
- vii) Ordinarily, no plant and machinery shall work for more than 8 hours a day inclusive of one hour lunch break. In case of an urgent work however, the Engineer-in-Charge may, at his discretion, allow the plant and machinery to be worked for more than normal period of 8 hours a day. In that case, the hourly hire charges for overtime to be borne by the contractor shall be 50% more than the normal proportionate hourly charges (1/8th of the daily charges) subject to a minimum of half day's normal charges on any particular day. For working out hire charges for over time, a period of half an hour above will be charged as one hour and a period of less than half an hour will be ignored.
- viii) The contractor shall release the plant and machinery every seventh day for periodical servicing and/or wash out which may take about three to four hours or more. Hire charges for full days shall be recovered from the contractor for the day of servicing/ wash out irrespective of the period employed in servicing.

- ix) The plant and machinery once issued to the contractor shall not be returned by him on account of lack of arrangements of labour and materials, etc., on his part, the same will be returned only when they are required for major repairs or when in the opinion of the Engineer-in-Charge the work or a portion of work for which the same was issued is completed.
- x) Log Book for recording the hours of daily work for each of the plant and machinery supplied to the contractor will be maintained by the IITB and will be countersigned by the contractor or his authorized agent daily. In case the contractor contests the correctness of the entries and/or fails to sign the Log Book, the decision of the Engineer-in-Charge shall be final and binding on him. Hire charges will be calculated according to the entries in the Log Book and will be binding on the contractor. Recovery on account of hire charges for road rollers shall be made for the minimum number of days worked out on the assumption that a roller can consolidate per day and maximum quantity of materials or area surfacing as noted against each in the annexed statement(see attached annexure).
- xi) In the case of concrete mixers, the contractors shall arrange to get the hopper cleaned and the drum washed at the close of the work each day or each occasion.
 - a) In case rollers for consolidation are employed by the contractor himself, log book for such rollers shall be maintained in the same manner as is done in case of departmental rollers, maximum quantity of any items to be consolidated for each roller-day shall also be same as in Annexure to clause 34(x). For less use of rollers, recovery for the less roller days shall be made at the stipulated issue rate.
- xii) The contractor shall be responsible to return the plant and machinery in the condition in which it was handed over to him and he shall be responsible for all damage caused to the said plant and machinery at the site of work or elsewhere in operation or otherwise or during transit including damage to or loss of parts, and for all losses due to his failure it return the same soon after the completion of the work for which it was issued. The Engineer-in-Charge shall be the sole judge to determine the liability of the contractor and its extent in this regard and his decision shall be final and binding on the contractor.
- xiii) The contractor will be exempted from levy of any time hire charges for the number of days he is called upon in writing by the Engineer-in-Charge to suspend execution of the work, provided Institute plant and machinery in question have, in fact, remained idle with the contractor because of the suspension.

- xiv) In the event of the contractor not requiring any item of plant and machinery issued by Institute though not stipulated for issue in Schedule 'C' any time after taking delivery at the place of issue, he may return it after two days written notice or at any time without notice if he agrees to pay hire charges for two additional days without, in any way, affecting the right of the Engineer-in-Charge to use the said plant and machinery during the said period of two days written notice or at any time without notice if he agrees to pay hire charges for two additional days without, in any way, affecting the right of the Engineer-in-Charge to use the said plant and machinery during the said period of two days as he likes including hiring out to a third party.

CLAUSE 35 (NOT APPLICABLE)

Condition relating to use of asphaltic materials

- i) The contractor undertakes to make arrangement for the supervision of the work by the firm supplying the tar or bitumen used.
- ii) The contractor shall collect the total quantity of tar or bitumen required for the work as per standard formula, before the process of painting is started and shall hypothecate it to the Engineer-in-Charge. If any bitumen or tar remains unused on completion of the work on account of lesser use of materials in actual execution for reasons other than authorized changes of specifications and abandonment of portion of work, a corresponding deduction equivalent to the cost of unused materials as determined by the Engineer-in-Charge shall be made and the material return to the contractors. Although the materials are hypothecated to Government, the contractor undertakes the responsibility for their proper watch, safe custody and protection against all risks. The materials shall not be removed from site of work without the consent of the Engineer-in- Charge in writing.
- iii) The contractor shall be responsible for rectifying defects noticed within a year from the date of completion of the work and the portion of the security deposit relating to asphaltic work shall be refunded after the expiry of this period.

CLAUSE 36

Employment of Technical Staff and employees

Contractors Superintendence, Supervision, Technical Staff & Employees

- i) The contractor shall provide all necessary superintendence during execution of the work and all long thereafter as may be necessary for proper fulfilling of the obligations under the contract.

The contractor shall immediately after receiving letter of acceptance of the tender and before commencement of the work, intimate in writing to the Engineer-in-Charge, the name(s), qualifications, experience, age, address(s) and other particulars along with certificates, of the principal technical representative to be in charge of the work and other technical representative(s) who will be supervising the work. Minimum requirement of such technical representative(s) and their qualifications and experience shall not be lower than specified in schedule F. The Engineer-in-Charge shall within 3 days of receipt of such communication intimate in writing his approval or otherwise of such a representative(s) to the contractor. Any such approval may at any time be withdrawn and in case of such withdrawal, the contractor shall appoint another such representative(s) according to the provisions of this clause. Decision of the tender accepting authority shall be final and binding on the contractor in this respect. Such a principal technical representative and other technical representative(s) shall be appointed by the contractor soon after receipt of the approval from Engineer-in-Charge and shall be available at site before start of work.

All the provisions applicable to the principal technical representative under the Clause will also be applicable to other technical representative(s). The principal technical representative and other technical representative(s) shall be present at the site of work for supervision at all times when any construction activity is in progress and also present himself/themselves, as required, to the Engineer-in-Charge and/or his designated representative to take instructions. Instructions given to the principal technical representative or other technical representative(s) shall be deemed to have the same force as if these have been given to the contractor. The principal technical representative and other technical representative(s) shall be actually available at site fully during all stages of execution of work, during recording/checking/test checking of measurement of works and whenever so required by the Engineer-in-Charge and shall also note down instructions conveyed by the Engineer-in-Charge or his designated representative(s) in the site order book and shall affix his/their signature in token of noting down the instruction and in token of acceptance of measurement checked measurement/test checked measurement. The representative(s) shall not look after any other work. Substitute, duly approved by Engineer-in-Charge of the work in similar manner as aforesaid shall be provided in event of absence of any of the representative(s) by more than two days.

If the Engineer-in-Charge, whose decision in this respect is final and binding on the contractor, is conveyed that no such technical representative(s) is/are effectively appointed or is/are effectively attending or fulfilling the provision of this clause, a recovery (non-refundable) shall be effected from the contractor as specified Schedule "F" and the decision of the Engineer-in-Charge as recorded in the site order book and

measurement recorded checked/test checked in Measurement Books shall be final and binding on the contractor. Further if the contractor fails to appoint suitable technical Principal technical representative an/or other technical representative(s) and if such appointed persons are not effectively present or are absent by more than two days without duly approved substitute or do not discharge their responsibilities satisfactorily, the engineer-in-Charge shall have full powers to suspend the execution of the work until such date as suitable other technical representative(s) is are appointed and the contractor shall be held responsible for the delay so caused to the work. The contractor shall submit a certificate of employment of the technical representative(s) along with every on-account bill / final and shall produce evidence if at any time so required by the Engineer-in-Charge.

- ii) The contractor shall provide and employ on the site only such technical assistants as are skilled and experienced in their respective fields and such foremen and supervisory staff as are competent to give proper supervision to the work.

The contractor shall provide and employ skilled, semiskilled and unskilled labour as is necessary for proper and timely execution of the work.

The Engineer-in-Charge shall be at liberty to object to and require the contractor to remove from the works any person who in his opinion misconducts himself, or is incompetent or negligent in the performance of his duties or whose employment is otherwise considered by the Engineer-in-Charge to be undesirable. Such person shall not be employed again at works site without the written permission of the Engineer-in-Charge and the persons so removed shall be replaced as soon as possible by competent substitutes.

CLAUSE 37

Levy/Taxes payable by Contractor

- i) GST , Building and other construction workers welfare cess or any other tax, levies or cess in respect of input for or output by this contract shall be payable by the contractor and IITB shall not entertain any claim whatso ever in this respect except as provided under clause 38.
- ii) The contractor shall deposit royalty and obtain necessary permit for supply of the red bajri, stone, kankar etc. from local authorities.
- iii) If pursuant to or under any law, notification or order any royalty, cess or the like becomes payable by the IITB and does not any time become payable by the contractor to the State Government, Local authorities in respect of any material used by the contractor in the works

then in such a case, it shall be lawful to the IITB and it will have the right and be entitled to recover the amount paid in the circumstances as aforesaid from dues of the contractor.

- iv) ESI and EPF contributions in respect of this contract shall be payable by the Contractor and any payment in respect of this shall be made by the contractor only and IITB shall not entertain any claim whatsoever in this respect. In case of any demand from the ESI & EPF authorities against the contractor, the same shall be deducted from their bills/dues.

CLAUSE 38

Conditions for reimbursement of levy/taxes if levied after receipt of tenders

i) All tendered rates shall be inclusive of any tax, levy or cess applicable on last stipulated date of receipt of tender including extension if any. No adjustment i.e. increase or decrease shall be made for any variation in the rate of GST, Building and other construction Workers welfare cess or any tax, levy or Cess applicable on inputs.

However, effect of variation in rates of GST or Building and Other Construction workers Welfare Cess or imposition or repeal of any other tax, levy or cess applicable on output of the works contract shall be adjusted on either side, increase or decrease. Provided further that for Building and Other Construction Workers Welfare Cess or any tax (other than GST), levy or Cess varied or imposed after the last date of receipt of tender including extension if any, any increase shall be reimbursed to the contractor only if the contractor necessarily and properly pays such increased amount of taxes/levies/cess.

Provided further that such increase including GST shall not be made in the extended period of contract for which the contractor alone is responsible for delay as determined by authorities for extension of time under Clause 5 in Schedule F

- ii) The contractor shall keep necessary books of accounts and other documents for the purpose of this condition as may be necessary and shall allow inspection of the same by a duly authorized representative of the Engineer-in-Charge and shall also furnish such other information/document as the Engineer-in-Charge may require from time to time.
- iii) The contractor shall, within a period of 30 days of the imposition of any such further tax or levy or cess, give a written notice thereof to the Engineer-in-Charge that the same is given pursuant to this condition, together with all necessary information relating thereto.

CLAUSE 39

Termination of Contract on death of contractor

Without prejudice to any of the rights or remedies under this contract if the contractor dies, the EIC shall have the option of terminating the contract without compensation to the contractor.

CLAUSE 40 (NOT APPLICABLE)

If relative working in Institute then the contractor not allowed to tender

The contractor shall not be permitted to tender for works in the Institute responsible for award and execution of contracts in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of the Superintending Engineer and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any Gazetted Officer in the Institute. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department. If however the contractor is registered in any other department, he shall be debarred from tendering in Institute for any breach of this condition.

NOTE: By the term "near relatives" is meant wife, husband, parents and grand parents, children and grand children, brothers and sisters, uncles, aunts and cousins and their corresponding in-laws.

CLAUSE 41 (NOT APPLICABLE)

NO Gazetted Engineer to work as contractor within one year of retirement

No engineer of gazetted rank or other gazetted officer employed in engineering or administrative duties in an engineering department of the Government of India shall work as a contractor or employee of a contractor for a period of one year after his retirement from government service without the previous permission of Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found at any time to be such a person who had not obtained the permission of Government of India as aforesaid, before submission of the tender or engagement in the contractor's service, as the case may be.

CLAUSE 42

Return of material & recovery for excess material issued

- i) After completion of the work and also at any intermediate stage in the event of non-reconciliation of materials issued, consumed and in balance – (see clause 10),

theoretical quantity of materials issued by the Institute for use in the work shall be calculated on the basis and method given hereunder: -

- a) Quantity of cement & bitumen shall be calculated on the basis of quantity of cement & bitumen required for different items of work as shown in the schedule of Rates mentioned in Schedule 'F'. In case any item is executed for which standard constants for the consumption of cement or bitumen are not available in the above mentioned schedule/statement or cannot be derived from the same shall be calculated on the basis of standard formula to be laid down by the Engineer-in-Charge.
 - b) Theoretical quantity of steel reinforcement or structural steel sections shall be taken as the quantity required as per design or as authorized by Engineer-in-Charge, including authorized lappings, chairs etc., plus 3% wastage due to cutting into pieces, such theoretical quantity being determined and compared with the actual issues each diameter wise, section wise and categories separately.
 - c) Theoretical quantity of G.I. & C.I. or other pipes, conduits, wires and cables, pig lead and G.I./M.S. sheets shall be taken as quantity actually required and measured plus 5% for wastage due to cutting into pieces (except in the case of G.I./M.S. sheets it shall be 10%), such determination & comparison being made diameter wise & category wise.
 - d) For any other material as per actual requirements.
- ii) Over the theoretical quantities of materials so computed a variation shall be allowed as specified in schedule 'F'. The difference in the net quantities of material actually issued to the contractor and the theoretical quantities including such authorized variation, if not returned by the contractor or if not fully reconciled to the satisfaction of the Engineer-in-Charge within fifteen days of the issue of written notice by the Engineer-in-Charge to this effect shall be recovered at the rates specified in Schedule 'F', without prejudice to the provision of the relevant conditions regarding return of materials governing the contract. Decision of Engineer-in-Charge in regard to theoretical quantities of materials, which should have been actually used as per the Annexure of the standard schedule of rates and recovery at rates specified in Schedule 'F', shall be final & binding on the contractor.
- For non scheduled items, the decision of the engineer-in-Charge regarding theoretical quantities of materials which should have been actually used shall be final and binding on the contractor.
- iii) The said action under this clause is without prejudice to the right of the Institute to take action against the contractor under any other conditions of contract for not doing the work according to the prescribed specifications.

CLAUSE 43

Compensation during warlike situations

The work (whether fully constructed or not) and all materials, machines, tools and plants, scaffolding, temporary buildings and other things connected therewith shall be at the risk of the contractor until the work has been delivered to the Engineer-in-Charge and a certificate from him to that effect obtained. In the event of the work or any materials properly brought to the site for incorporation in the work being damaged or destroyed in consequence of hostilities or warlike operation, the contractor shall when ordered (in writing) by the Engineer-in-Charge to remove any debris from the site, collect and properly stack or remove in store all serviceable materials salvaged from the damaged work and shall be paid at the contract rates in accordance with the provision of this agreement for the work of cleaning the site of debris, stacking or removal of serviceable material and for reconstruction of all works ordered by the Engineer-in-Charge, such payments being in addition to compensation upto the value of the work originally executed before being damaged or destroyed and not paid for. In case of works damaged or destroyed but not already measured and paid for, the compensation shall be assessed by the Engineer-in-Charge upto Rs.5,000/- and by the IITB for a higher amount. The contractor shall be paid for the damages/destruction suffered and for the restoring the material at the rate based on analysis of rates tendered for in accordance with the provision of the contract. The certificate of the Engineer-in-Charge regarding the quality of materials and the purpose for which they were collected shall be final and binding on all parties to this contract.

Provided always that no compensation shall be payable for any loss in consequence of hostilities or warlike operations (a) unless the contractor had taken all such precautions against air raid as are deemed necessary by the A.R.P. Officers or the Engineer-in-Charge (b) for any material etc., not on the site of the work or for any tools, plant, machinery, scaffolding, temporary building and other things not intended for the work.

In the event of the contractor having to carry out reconstruction as aforesaid, he shall be allowed such extension of time for its completion as is considered reasonable by IITB.

CLAUSE 44

Apprentices Act provisions to be complied with

The contractor shall comply with the provisions of the Apprentices Act, 1961 and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and Director, IITB may, in his discretion, cancel the contract. The contractor shall be also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.

CLAUSE 45

Release of Security Deposit after Labour Clearance

Security Deposit of the work shall not be refunded till the contractor produces a clearance certificate from the Labour Officer. As soon as the work is virtually complete the contractor shall apply for the clearance certificate to the Labour Officer under intimation to the Engineer-in-charge, on receipt of the said communication, shall write to the Labour Officer to intimate if any complaint is pending against the contractor in respect of the work. If no complaint is pending, on record till after 3 months after completion of the work and/or no communication is received from the Labour Officer to this effect till six months after the date of completion, it will be deemed to have received the clearance certificate and the Security Deposit will be released if otherwise due.

* * * * *

SAFETY CODE

1. Suitable scaffolds should be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except such short period work as can be done safely from ladders. When a ladder is used, an extra mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well suitable footholds and hand-hold shall be provided on the ladder and the ladder shall be given an inclination not steeper than $\frac{1}{4}$ to 1($\frac{1}{4}$ horizontal and 1 vertical.)
2. Scaffolding of staging more than 3.6m (12ft) above the ground or floor, swung or suspended from an overhead support or erected with stationary support shall have a guard rail properly attached or bolted, braced and otherwise secured at least 90 cm. (3ft.) high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends there of with only such opening as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
3. Working platforms, gangways and stairways should be so constructed that they should not sag unduly or unequally, and if the height of the platform or the gangway or the stairway is more than 3.6m (12ft) above ground level or floor level, they should be closely boarded, should have adequate width and should be suitably fastened as described in (2) above.
4. Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of person or materials by providing suitable fencing or railing whose minimum height shall be 90 cm. (3ft.)
5. Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9m. (30ft.) in length while the width between side rails in rug ladder shall in no case be less than 29 cm (11 $\frac{1}{2}$ ") for ladder upto and including 3 m (10ft.) in length. For longer ladders, this width should be increased at least $\frac{1}{4}$ " for each additional 30 cm. (1 foot) of length. Uniform the spacing of not more than 30 cm shall be kept. Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites or work shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall provide all necessary fencing and lights to protect the public from accident and shall be bound to bear the expenses of defense of every suit, action or other proceedings at law that may be brought by any damages and cost which may be awarded in any such suit, action or proceedings to any such person or which may, with the consent of the contractor, be paid to compensate any claim by such person.

6. Excavation and Trenching- All trenches 1.2 m. (4ft.) or more in depth, shall at all times be supplied with at least one ladder for each 30 m. (100ft.) in length of fraction thereof Ladder shall extend from bottom of the trench to at least 90 cm. (3ft.) above the surface of the ground. The side of the trenches which are 1.5m. (5ft.) or more in depth shall be stepped back to give suitable slope or securely held by timber bracing, so as to avoid the danger of sides collapsing. The excavated materials shall not be placed within 1.5 m. (5ft.) of the edges of the trench or half of the depth of the trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances undermining or undercutting shall be done.
7. Demolition-Before any demolition work is commenced and also during the progress of the work,
 - i) All roads and open areas adjacent to the work site shall either be closed or suitably protected.
 - ii) No electric cable or apparatus which is liable to be a source of danger or a cable or apparatus used by the operator shall remain electrically charged.
 - iii) All practical steps shall be taken to prevent danger to persons employed from risk of fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.
8. All necessary personal safety equipment as considered adequate by the Engineer-in- Charges should be kept available for the use of the person employed on the site and maintained in a condition suitable for immediate use, and the contractor should take adequate steps to ensure proper use of equipment by those concerned: - The following safety equipment shall invariably be provided.
 - i) Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.
 - ii) Those engaged in white washing and mixing or stacking of cement bags or any material which is injurious to the eyes, shall be provided with protective goggles.
 - iii) Those engaged in welding works shall be provided with welder's protective eye-shields.
 - iv) Stone breaker shall be provided with protective goggles and protective clothing and seated at sufficiency safe intervals.
 - v) When workers are employed in sewers and manholes, which are in active use, the contractors shall ensure that the manhole covers are opened and ventilated atleast for an hour before the workers are allowed to get into the manholes, and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public. In addition, the contractor shall ensure that the following safety measure are adhered to:-
 - a) Entry for workers into the line shall not be allowed except under supervision of the Site Engineer or any other higher officer.

- b) At least 5 to 6 manholes upstream and downstream should be kept open for at least 2 to 3 hours before any man is allowed to enter into the manhole for working inside.
- c) Before entry presence of Toxic gases should be tested by inserting wet lead acetate paper which changes colour in the presence of such gases and gives indication of their presence.
- d) Presence of Oxygen should be verified by lowering a detector lamp into the manhole. In case, no Oxygen is found inside the sewer line, workers should be sent only with Oxygen kit.
- e) Safety belt with rope should be provided to the workers. While working inside the manholes such rope should be handled by two men standing outside to enable him to be pulled out during emergency.
- f) The area should be barricaded or cordoned off by suitable means to avoid mishaps of any kind. Proper warning signs should be displayed for the safety of the public whenever cleaning works are undertaken during night or day.
- g) No smoking or open flames shall be allowed near the blocked manhole being cleaned.
- h) The malba obtained on account of cleaning of blocked manholes and sewer line should be immediately removed to avoid accidents on account of slippery nature of the malba.
- i) Workers should not be allowed to work inside the manhole continuously. He should be given rest intermittently. The Engineer-in-charge may decide the time up to which a worker may be allowed to work continuously inside the manhole.
- j) Gas masks with Oxygen Cylinder should be kept at site for use in emergency.
- k) Air-blowers should be used for flow of fresh air through the manholes. Whenever called for portable air blowers are recommended for ventilating the manholes. The Motors for these shall be vapour proof and of totally enclosed type. Non sparking gas engines also could be used but they should be placed at least 2 meters away from the opening and on the leeward side protected from wind so that they will not be source of friction on any inflammable gas that might be present
- l) The workers engaged for cleaning the manholes/sewers should be properly trained before allowing to work in the manhole.
- m) The workers shall be provided with Gumboots or non sparking shoes bump helmets and gloves non sparking tools safety lights and gas masks and portable air blowers (when necessary). They must be supplied with barrier cream for anointing th-9 limbs before working inside the sewer lines.
- n) Workmen descending a manhole shall try each ladder stop or rung carefully before putting his full weight on it to guard against insecure fastening due to corrosion of the rung fixed to manhole well.

- o) If a man has received a physical injury, he should be brought out of the sewer immediately and adequate medical aid should be provided to him.
 - p) The extent to which these precautions are to be taken depend on individual situation but the decision of the Engineer-in-Charge regarding the steps to be taken in this regard in an individual case will be final.
 - vi) The contractor shall not employ men and women below the age of 18 years on the work of painting with products containing lead in any form. Wherever men above the age of 18 are employed on the work of lead painting, the following precaution should be taken:-
 - f) No paint containing lead or lead products shall be used except in the form of paste or ready-made paint.
 - g) Suitable face masks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint is dry rubbed and scraped.
 - h) Overalls shall be supplied by the contractors to the workmen and adequate facilities shall be provided to enable the working painters to wash during and on the cessation of work.
9. An additional clause (viii)(i) of, Central Public Works Department Safety Code (iv) the Contractor shall not employ women and men below the age of 18 on the work of painting with product containing lead in any form, wherever men above the age of 18 are employed on the work of lead painting, the following principles must be observed for such use:
- i) White lead, sulphate of lead or product containing these pigment, shall not be used in painting operation except in the form of pastes or paint ready for use.
 - ii) Measures shall be taken, wherever required in order to prevent danger arising out of from the application of a paint in the form of spray.
 - iii) Measures shall be taken, wherever practicable, to prevent danger arising out of from dust caused by dry rubbing down and scraping.
 - iv) Adequate facilities shall be provided to enable working painters to wash during and cessation of work.
 - v) Overall shall be worn by working painters during the whole of working period.
 - vi) Suitable arrangement shall be made to prevent clothing put off during working hours being spoiled by painting materials.
 - vii) Cases of lead poisoning and suspected lead poisoning shall be notified and shall be subsequently verified by medical man appointed by competent authority of IITB.
 - viii) IITB may require, when necessary medical examination of workers.
 - ix) Instructions with regard to special hygienic precautions to be taken in the painting trade shall be distributed to working painters.
10. When the work is done near any place where there is risk of drowning, all necessary equipments should be provided and kept ready for use and all necessary steps taken for prompt

rescue of any person in danger and adequate provision, should be made for prompt first aid treatment of all injuries likely to be obtained during the course of the work.

11. Use of hoisting machines and tackle including their attachments, anchorage and supports shall conform to the following standards or conditions:-

- i)
 - a) These shall be of good mechanical construction, sound materials and adequate strength and free from patent defects and shall be kept repaired and in good working order.
 - b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free from patent defects.
- ii) Every crane driver or hoisting appliance operator, shall be properly qualified and no person under the age of 21 years should be in charge of any hoisting machine including any scaffolding winch or give signals to operator.
- iii) In case of every hoisting machine and of every chain ring hook, shackle swivel and pulley block used in hoisting or as means of suspension, the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of hoisting machine having a variable safe working load each safe working load and the condition under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.
- iv) In case of Institute's machines, the safe working load shall be notified by the Engineer-in-Charge. As regards contractor's machines the contractors shall notify the safe working load of the machine to the Engineer-in-Charge whenever he brings any machinery to site of work and get it verified by the Electrical Engineer concerned.

12. Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguards. Hoisting appliances should be provided with reduce to the minimum the risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations which are already energised, insulating mats, wearing apparel, such as gloves, sleeves and boots as may be necessary should be provided. The worker should not wear any rings, watches and carry keys or other materials which are good conductors of electricity.

13. All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use, Adequate washing facilities should be provided at or near places of work.

14. These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place at work spot. The person responsible for compliance of the safety code shall be named therein by the contractor.
15. To ensure effective enforcement of the rules and regulations relating to safety precautions the arrangements made by the contractor shall be open to inspection by the Labour Officer or Engineer-in-Charge of the department or their representatives.
16. Notwithstanding the above clauses from (1) to (15) there is nothing in these to exempt the contractor from the operations of any other Act or Rule in force in the Republic of India.

* * * * *

**MODEL RULES
FOR THE PROTECTION OF HEALTH AND
SANITARY ARRANGEMENTS FOR
WORKERS EMPLOYED BY CONTRACTORS**

1. APPLICATION

These rules shall apply to all buildings and construction works in charge of IITB in which twenty or more workers are ordinarily employed or are proposed to be employed in any day during the period during which the contract work is in progress.

2. DEFINITION

Work place means a place where twenty or more workers are ordinarily employed in connection with construction work on any day during the period during which the contracts work in progress.

3. FIRST-AID FACILITIES

- i) At every work place there shall be provided and maintained, so as to be easily accessible during working hours, first-aid boxes at the rate of not less than one box for 150 contract labour or part thereof ordinarily employed.
- ii) The first-aid box shall be distinctly marked with a red cross on white back ground and shall contain the following equipment:-
 - a) For work places in which the number of contract labour employed does not exceed 50-

Each first-aid box shall contain the following equipments:-

 1. 6 small sterilized dressings.
 2. 3 medium size sterilized dressings.
 3. 3 large size sterilized dressings.
 4. 3 large sterilized burn dressings.
 5. 1 (30 ml.) bottle containing a two per cent alcoholic solution of Iodine.
 6. 1 (30 ml.) bottle containing salvolatile having the dose and mode of administration indicated on the label.
 7. 1 snakebite lancet.
 8. 1 (30 gms.) bottle of potassium permanganate crystals.
 9. 1 pair scissors.
 10. 1 copy of the first-aid leaflet issued by the Director General, Factory Advice Service and Labour Institutes, Government of India.
 11. 1 bottle containing 100 tablets (each of 5 gms.) of aspirin.
 12. Ointment for burns.
 13. A bottle of suitable surgical antiseptic solution.

- b) For work places in which the number of contract labour exceed 50.
Each first-aid box shall contain the following equipments.
1. 12 small sterilised dressings.
 2. 6 medium size sterilised dressings.
 3. 6 large size sterilized dressings.
 4. 6 large size sterilized burn dressings.
 5. 6 (15 gms.) packets sterilized cotton wool.
 6. 1 (60 ml.) bottle containing a two per cent alcoholic solution iodine.
 7. 1 (60 ml.) bottle containing salvolatile having the dose and mode of administration indicated on the label.
 8. 1 roll of adhesive plaster.
 9. 1 snake bite lancet
 10. 1 (30 gms) bottle of potassium permanganate crystals.
 11. 1 pair scissors.
 12. 1 copy of the first-aid leaflet issued by the Director General Factory Advice Service arid-Labour Institutes/ Government of India.
 13. A bottle of containing 100 tablets (each of 5 gms) of aspirin.
 14. Ointment for burns.
 15. A bottle of suitable surgical antiseptic solution
- iii) Adequate arrangements shall be made for immediate recoupment of the equipment when necessary.
- iv) Nothing except the prescribed contents shall be kept in the First-aid box.
- v) The first-aid box shall be kept in charge of a responsible person who shall always be readily available during the working hours of the work place.
- vi) A person in charge of the First-aid box shall be a person trained in First-aid treatment, in the work places where the number of contract labour employed is 150 or more
- vii) In work places where the number of contract labour employed is 500 or more and hospital facilities are not available within easy distance from the works First-aid posts shall be established and run by a trained compounder. The compounder shall be on duty and shall be available at all hours when the workers are at work.
- viii) Where work places are situated in places which are not towns or cities, a suitable motor transport shall be kept readily available to carry injured person or person suddenly taken ill to the nearest hospital.

4. DRINKING WATER

- i) In every place, there shall be provided and maintained at suitable places, easily accessible to labour, a sufficient supply of cold water fit for drinking.
- ii) Where drinking water is obtained from an international public water supply, each work place shall be provided with storage where such drinking water shall be stored.

- iii) Every water supply or storage shall be at a distance of not less than 50 feet from any latrine drain or other source of pollution. Where water has to be drawn from an existing well which is within such proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with a trap door which shall be dust and waterproof.
- iv) A reliable pump shall be fitted to each covered well, the trap door shall be kept locked and opened only for cleaning or inspection which shall be done at least once a month.

5. WASHING FACILITIES

- i) In every work place adequate and suitable facilities for washing shall be provided and maintained for the use of contract labour employed therein.
- ii) Separate and adequate cleaning facilities shall be provided for the use of male and female workers.
- iii) Such facilities shall be conveniently accessible and shall be kept in clean and hygienic condition.

6. LATRINES AND URINALS

- i) Latrine shall be provided in every work place on the following scale namely:-
 - a) Where female are employed there shall be at least one latrine for every 25 females.
 - b) Where males are employed, there shall be at least one latrine for every 25 males.

Provided that where the number of males or females exceeds 100, it shall be sufficient if there is one latrine for 25 males or females as the case may be upto the first 100, and one for every 50 thereafter.

- ii) Every latrine shall be under cover and so partitioned off as to secure privacy, and shall be have a proper door and fastenings.
- iii) Construction of latrines, The inside walls shall be constructed of masonry or some suitable heat-resisting nonabsorbent materials and shall be cement washed inside and outside at least once a year, Latrines shall not be of a standard lower than borehole system.
- iv)
 - a) Where workers of both sexes are employed, there shall be displayed outside each block of latrine and urinal, a notice in language understood by the majority of the workers "For Men only" or "For Women Only" as the case may be.
 - b) The notice shall also bear the figure of a man or of a woman, as the case may be.
- v) There shall be at least one urinal for male workers upto 50 and one for female workers upto fifty employed at a time, provided that where the number of male or female workmen, as the case may be exceeds 500, it shall be sufficient if there is one

urinal for every 50 males or females upto the first 500 and one for every 100 or part thereafter.

vi)

α) The latrine and urinals shall be adequately lighted and shall be maintained in clean and sanitary condition at all times.

β) Latrines and urinals other than those connected with a flush sewage system shall comply with the requirement of the Public Health Authorities.

vii) Water shall be provided by means of tap or otherwise so as to be conveniently accessible in or near the latrines and urinals.

viii) Disposal of excreta: - Unless otherwise arranged for by the local sanitary authority, arrangements for proper disposal of excreta by incineration at the work place shall be made by means of a suitable incineration. Alternately excreta may be disposed of by putting a layer of night soil at bottom of a pucca tank prepared for the purpose and covering it with a 15 cm. layer of waste or refuse and then covering it with a layer of earth for a fortnight (when it will turn to manure).

ix) The contractor shall at own expense, carry out all instructions issued to him by the Engineer-in-Charge to effect proper disposal of night soil and other conservancy work in respect of the contractor's workmen or employees on the site. The contractor shall be responsible for payment of any charges which may be levied by Municipal or Cantonment Authority for execution of such on his behalf.

7. PROVISION OF SHELTER DURING REST

At every place there shall be provided, free of cost, four suitable sheds, two for meals and the other two for rest separately for the use of men and women labour. The height of each shelter shall not be less than 3 meters (10 ft) from the floor level to the lowest part of the roof. These shall be kept clean and the space provided shall be on the basis of 0.6 sq.m.(6 ft) per head.

Provided that the Engineer-in-Charge may permit subject to his satisfaction, a portion of the building under construction or other alternative accommodation to be used for the purpose.

8. CRECHES

- i) At every work place, at which 20 or more women worker are ordinarily employed, there shall be provided two rooms of reasonable dimensions for the use of their children under the age of six years. One room shall be used as a play room for the children and the other as their bedroom. The rooms shall be constructed with specifications as per clause 19H (ii) a,b & c.
- ii) The rooms shall be provided with suitable and sufficient openings for light and ventilation. There shall be adequate provision of sweepers to keep the places clean.
- iii) The contractor shall supply adequate number of toys and games in the play room and sufficient number of cots and beddings in the bed room.

- iv) The contractor shall provide one ayaa to look after the children in the creche when the number of women workers does not exceed 50 and two when the number of women workers exceed 50.
- v) The use of the rooms earmarked as creches shall be restricted to children, their attendants and mothers of the children.

9. CANTEENS

- i) In every work place where the work regarding the employment of contract labour is likely to continue for six months and where in contract labour numbering one hundred or more are ordinarily employed, an adequate canteen shall be provided by the contractor for the use of such contract labour.
- ii) The canteen shall be maintained by the contractor in an efficient manner.
- iii) The canteen shall consist of at least a dining hall, kitchen, storeroom, pantry and washing places separately for workers and utensils.
- iv) The canteen shall be sufficiency lighted at all times when any person has access to it.
- v) The floor shall be made of smooth and impervious materials and inside walls shall be lime-washed or colour washed at least once in each year. Provided that the inside walls of the kitchen shall be lime-washed every four months.
- vi) The premises of the canteen shall be maintained in a clean and sanitary condition.
- vii) Waste water shall be carried away in suitable covered drains and shall not be allowed to accumulate so as to cause a nuisance.
- viii) Suitable arrangements shall be made for the collection and disposal of garbage.
- ix) The dining hall shall accommodate at a time 30 per cent of the contract labour working at a time.
- x) The floor area of the dining hall, excluding the area occupied by the service counter and any furniture except tables and chairs shall not be less than one square metre (10 sqft) per diner to be accommodated as prescribed in sub-Rule 9.
- xi) a) A portion of the dining hall and service counter shall be partitioned off and reserved for women workers in proportion to their number.
b) Washing places for women shall be separate and screened to secure privacy.
- xii) Sufficient tables stools, chair or benches shall be available for the number of diners to be accommodated as prescribed in sub-Rule 9.
- xiii) a) 1. There shall be provided and maintained sufficient utensils crockery, furniture and any other equipments necessary for the efficient running of the canteen.
2. The furniture utensils and other equipment shall be maintained in a clean and hygienic condition.
b) 1. Suitable clean clothes for the employees serving in the canteen shall be provided and maintained.
2. A service counter, if provided, shall have top of smooth and impervious material.
3. Suitable facilities including an adequate supply of hot water shall be provided for the cleaning of utensils and equipments

- xiv) The food stuffs and other items to be served in the canteen shall be in conformity with the normal habits of the contract labour.
- xv) The charges for food stuffs, beverages and any other items served in the canteen shall be based on 'No profit, No loss' and shall be conspicuously displayed in the canteen.
- xvi) In arriving at the price of foodstuffs, and other article served in the canteen, the following items shall not be taken into consideration as expenditure namely:-
 - a) The rent of land and building.
 - b) The depreciation and maintenance charges for the building and equipments provided for the canteen.
 - c) The cost of purchase, repairs and replacement of equipments including furniture, crockery, cutlery and utensils.
 - d) The water charges and other charges incurred for lighting and ventilation.
 - e) The interest and amounts spent on the provision and maintenance of equipments provided for the canteen.
- xvii) The accounts pertaining to the canteen shall be audited once every 12 months by registered accountants and auditors.

10. **ANTI-MALARIAL PRECAUTIONS**

The contractor shall at his own expense, conform to all anti-malarial instructions given to him by the Engineer-in-Charge including the filling up of any borrow pits which may have been dug by him.

11. The above rules shall be incorporated in the contracts and in notices inviting tenders and shall form an integral part of the contracts.

12. **AMENDMENTS**

The Institute may, from time to time, add to or amend those rules and issue directions-it may consider necessary for the purpose of removing any difficulty which may arise in the administration thereof.

* * * * *

CONTRACTOR'S LABOUR REGULATIONS

1. SHORT TITLE

These regulations may be called Contractors Labour Regulations.

2. DEFINITIONS

- i) **Workman** means any person employed by IITB or its contractor directly or indirectly through a subcontractor with or without the knowledge of the IITB to do any skilled, semiskilled or unskilled manual, supervisory, technical or clerical work for hire or reward, whether the terms of employment are expressed or implied but does not include any person:-
 - a) Who is employed mainly in a managerial or administrative capacity: or
 - b) Who, being employed in a supervisory capacity draws wages exceeding five hundred rupees per mensem or exercises either by the nature of the duties attached to the office or by reason of powers vested in him, functions mainly of managerial nature: or
 - c) Who is an outworker, that is to say, person to whom any article or materials are given out by or on behalf of the principal employers to be made up cleaned, washed, altered, ornamental finished, repaired adopted or otherwise processed for sale for the purpose of the trade or business of the principal employers and the process is to be earned out either in the home of the out worker or in some other premises, not being premises under the control and management of the principal employer.No person below the age of 14 years shall be employed to act as a workman.
- ii) **Fair Wages** means wages whether for time or piece work fixed and notified under the provisions of the Minimum Wages Act from time to time.
- iii) **Contractors** shall include every person who undertakes to produce a given result other than a mere supply of goods or articles of manufacture through contract labour or who supplies contract labour for any work and includes a subcontractor.
- iv) **Wages** shall have the same meaning as defined in the Payment of Wages Act.

3.

- i) Normally working hours of an adult employee should not exceed 9 hours a day. The working day shall be so arranged that inclusive of interval for rest, if any, it shall not spread over more than 12 hours on any day.
- ii) When an adult worker is made to work for more than 9 hours on any day or for more than 48 hours in any week, he shall be paid over time for the extra hours put in by him-at double the ordinary rates of wages.
- iii)
 - a) Every worker shall be given a weekly holiday normally on a Sunday in accordance with the provisions of the Minimum Wages (Central) Rules 1960 as amended

from time to time irrespective of whether such worker is governed by the Minimum Wages Act or not.

- b) Where the minimum wages prescribed by the Government under the Minimum Wages Act are not inclusive of the wages for the weekly day of rest, the worker shall be entitled to rest day wages at the rate applicable to the next preceding day, provided he has worked under the same contractor for a continuous period of not less than 6 days.
- c) Where a contractor is permitted by the Engineer-in-Charge to allow a worker to work on a normal weekly holiday, he shall grant a substituted holiday to him for the whole day on one of the five days immediately before or after the normal weekly holiday and pay wages to such worker for the work performed on the normal weekly holiday at overtime rate.

4. DISPLAY OF NOTICE REGARDING WAGES ETC.

The contractor shall before he commences his work on contract, display and correctly maintain and continue to display and correctly maintain in a clear and legible condition in conspicuous places on the work, notices in English and in the local Indian languages spoken by the majority of the workers giving the minimum rates of wages fixed under Minimum Wages Act, the actual wages being paid, the hours of work for which such wages are earned, wages periods, dates of payments of wages and other relevant as per Appendix 'III'

5. PAYMENT OF WAGES

- i) The contractor shall fix wage periods in respect of which wages shall be payable.
- ii) No wage period shall exceed one month.
- iii) The wages of every person employed as contract labour in an establishment or by a contractor where less than one thousand such persons are employed shall be paid before the expiry of seventh day and in other cases before the expiry of tenth day after the last day of the wage period in respect of which the wages are payable.
- iv) Where the employment of any worker is terminated by or on behalf of the contractor the wages earned by him shall be paid before the expiry of the second working day from the date on which his employment is terminated.
- v) All payment of wages shall be made on a working day at the work premises and during the working time and on a date notified in advance and in case the work is completed before the expiry of the wage period, final payment shall be made within 48 hours of the last working day.

- vi) Wages due to every worker shall be paid to him direct or to other person authorised by him in this behalf.
- vii) All wages shall be paid in current coin or currency or in both.
- viii) Wages shall be paid without any deductions of any kind except those specified by the Central Government by general or special order in this behalf or permissible under the Payment of Wages Act 1956.
- ix) A notice showing the wages period and the place and time of disbursement of wages shall be displayed at the place of work and a copy sent by the contractor to the Engineer-in-Charge under acknowledgment.
- x) It shall be the duty of the contractor to ensure the disbursement of wages in the presence of the Junior Engineer or any other authorised representative of the Engineer-in-Charge who will be required to be present at a place and time of disbursement of wages by the contractor to workmen.
- xi) The contractor shall obtain from the Junior Engineer or any other authorised representative of the Engineer-in-Charge as the case may be, a certificate under his signature at end of the entries in the "Register of Wages" or the "Wage-cum-Muster Roll" as the case may be in the following from:-

"Certified that the amount shown in column No _____ has been paid to the workman concerned in my presence on _____ at _____"

6. FINES AND DEDUCTIONS WHICH MAY BE MADE FROM WAGES

- i) The wages of a worker shall be paid to him without any deduction of any kind except the following :-
 - a) Fines
 - b) Deduction for absence from duty i.e. from the place or the places where by the terms of his employment he required to work. The amount of deduction shall be in proportion to the period for which he was absent.
 - c) Deduction for damage to or loss of goods expressly entrusted to the employed person for custody, or for loss of money or any other deduction which he is required to account, where such damage or loss is directly attributable to his neglect or default.
 - d) Deduction for recovery of advances or for adjustment of overpayment of wages, advances granted shall be entered in a register.
 - e) Any other deduction which the Central Government may from time to time allow.

- ii) No fines should be imposed on any worker save in respect of such acts and omissions on his part as have been approved of by the Chief Labour Commissioner.

Note: - An approved list of Acts and Omissions for which fines can be imposed is enclosed at Appendix-X

- iii) No fine shall be imposed on a worker and no deduction for damage or loss shall be made from his wages until the worker has been given an opportunity of showing cause against such fines or deductions.
- iv) The total amount of fine which may be imposed in any one wage period on a worker shall not exceed an amount equal to three paise in a rupee of the total wages, payable to him in respect of that wage period.
- v) No fine imposed on any worker shall be recovered from him by installment, or after the expiry of sixty days from the date on which it was imposed.
- vi) Every fine shall be deemed to have been imposed on the day of the act or omission in respect of which it was imposed.

7. LABOUR RECORDS

- i) The contractor shall maintain a **Register of persons employed** on work on contract in Form XIII of the CL (R&A) Central Rules 1971 (Appendix IV)
- ii) The contractor shall maintain a **Muster Roll** register in respect of all workmen employed by him on the work under Contract in Form XVI of the CL (R&A) Rules 1971 (Appendix V)
- iii) The contractor shall maintain a **Wage Register** in respect of all workmen employed by him on the work under contract in Form XVII of the CL (R& A) Rules 1971 (Appendix VI)
- iv) **Register of accident-** The contractor shall maintain a register of accidents in such form as may be convenient at the work place but the same shall include the following particulars: -
 - a) Full particulars of the labourers who met with accident.
 - b) Rate of Wages.
 - c) Sex
 - d) Age
 - e) Nature of accident and cause of accident.
 - f) Time and date of accident.
 - g) Date of time when admitted in Hospital.
 - h) Date of discharge from the Hospital
 - i) Period of treatment and result of treatment.
 - j) Percentage of loss of earning capacity and disability as assessed by Medical Officer.
 - k) Claim required to be paid under Workmen's Compensation Act.
 - l) Date of payment of compensation.
 - m) Amount paid with details of the person to whom the same was paid.
 - n) Authority by whom the compensation was assessed.
 - o) Remarks.
- v) The contractor shall maintain a **Register of Fines** in the Form XII of the CL (R&A) Rules 1971 (Appendix-XI).

The contractor shall display in a good condition and in a conspicuous place of work the approved list of acts and omissions for which fines can be imposed (Appendix-X)
- vi) The contractor shall maintain a **Register of deductions for damage or loss** in Form XX of the CL (R&A) Rules 1971 (Appendix-XII)
- vii) The contractor shall maintain a **Register of Advances** in Form XXIII of the CL (R&A) Rules 1971 (Appendix-XIII)
- viii) The contractor shall maintain a **Register of Overtime** in Form XXIII of the CL (R&A) Rules 1971 (Appendix-XIV)

8. **ATTENDANCE CARD-CUM-WAGE SLIP**

- i) The contractor shall issue an **attendance card-cum-wage slip** to each workman employed by him in the specimen form at (Appendix – VII).
- ii) The card shall be valid for each wage period.
- iii) The contractor shall mark the attendance of each workman on the card twice each day, once at the commencement of the day and again after the rest interval, before he actually starts work.
- iv) The card shall remain in possession of the worker during the wage period under reference.
- v) The contractor shall complete the wage slip portion on the reverse of the card at least a day prior to the disbursement of wages in respect of the wage period under reference.
- vi) The contractor shall obtain the signature or thumb impression of the worker on the wage slip at the time of disbursement of wages and retain the card with himself.

9. **EMPLOYMENT CARD**

The contractor shall issue an **Employment Card** in Form XIV of the CL (R&A) Central Rules 1971 to each worker within three days of the employment of the worker (Appendix-VIII).

10. **SERVICE CERTIFICATE**

On termination of employment for any reason whatsoever the contractor shall issue to the workman whose services have been terminated, a **Service certificate** in Form XV of the CL (R&A) Central Rules 1971 (Appendix-IX).

11. **PRESERVATION OF LABOUR RECORDS**

All records required to be maintained under Regulations Nos. 6 & 7 shall be preserved in original for a period of three years from the date of last entries made in them and shall be made available for inspections by the Engineer-in-Charge or Labour Officer or any other officers authorized by the Ministry of Urban Development in this behalf.

12. **POWER OF LABOUR OFFICER TO MAKE INVESTIGATIONS OR ENQUIRY**

The Labour Officer or any person authorized by Central Government on their behalf shall have power to make enquires with a view ascertaining and enforcing due and proper observance of Fair Wage Clauses and Provisions of these Regulations. He shall investigate into any complaint regarding the default made by the contractor or subcontractor in regard to such provision.

13. **REPORT OF LABOUR OFFICER**

The Labour Officer or other person authorized aforesaid shall submit a report of result of his investigation or enquiry to the Engineer-in-Charge indicating the extent, if any, to which the default has been committed with a note that necessary deductions from the contractor's bill be made and the wages and other dues be paid to the labourers concerned. In case an appeal is made by the contractor under Clause 13 of these regulations, actual payment labourers will be made by the Engineer-in-Charge after the Director, IITB has given his decision on such appeal.

- i) The Engineer-in-Charge shall arrange payments to the labour concerned with 45 days from the receipt of the report from the Labour Officer or the Director, IITB as the case may be.

14. APPEAL AGAINST THE DECISION OF LABOUR OFFICER

Any person aggrieved by the decision and recommendations of the Labour Officer or other person so authorized may appeal against such decision to the Director, IITB concerned within 30 days from the date of decision, forwarding simultaneously a copy of his appeal to the Engineer-in-Charge but subject to such appeal, the decision of the Engineer-in-Charge shall be final and binding upon the contractor.

15. PROHIBITION REGARDING REPRESENTATION THROUGH LAWYER

- i) A workman shall be entitled to be represented in any investigation or enquiry under these regulations by : -
 - a) An officer of a registered trade union of which he is a member.
 - b) An officer of a federation of trade unions to which the trade union referred to in clause (a) is affiliated.
 - c) Where the employer is not a member of any registered trade union by an officer of a registered trade union, connected with the industry in which the worker is employed or by any other workman employed in the industry in which the worker is employed.
- ii) An employer shall be entitled to be represented in any investigation or enquiry under these regulations by : -
 - a) An officer of an association of employers of which he is a member.
 - b) An officer of a federation of associations of employers to which association referred to in clause (a) is affiliated.
 - c) Where the employer is not a member of any association of employers, by an officer of associations of employers connected with the industry in which the worker in employer is engaged or by any other employer, engaged in the industry in which the employer is engaged.
- iii) No party shall be entitled to be represented by a legal practitioner in any investigation or enquiry under these regulations.

16. INSPECTION OF BOOKS AND SLIPS

The contractor shall allow inspection of all the prescribed labour records to any of his workers or to his agent at a convenient time and place after due notice is received or to the Labour Officer or any other person by the Central Government on his behalf.

17. SUBMISSION OF RETURNS

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

18. AMENDMENTS

The Central Government may from time to time add to or amend the regulations and on any question as to the application/Interpretation or effect of those regulations the decision of the Director, IITB concerned shall be final.

SPECIAL CONDITIONS OF CONTRACT

1.0. DETAILS ABOUT SUBMISSION OF TENDER DOCUMENT

Part 1 : EMD & Eligibility Criteria

Part 2: Technical & Financial bid

Volume – I

i) Tender submission covering letter from bidder.

ii) NIT with instructions to bidder.

lii) Item rate Tender and Contract for works.

iv) Conditions of contract and Proforma of schedules A to F

V) Queries and clarifications of Pre-bid meeting.

Volume – II

i) Technical specifications, Drawings and List of approved makes

Volume – III

i) Financial bid containing BOQ duly filled with rates and amounts quoted .(In both words and figures.). Each page of BOQ to be signed and stamped by bidders.

2.0. DEFINITION

The following person(s)/firms(s) shall include their legal representative or in the event of their ceasing, person(s)/firm(s) as nominated by the Employer, not being a person(s)/firm(s) to whom the contractor shall object for reasons considered sufficient by the Employer. Provided always that no person(s)/firm(s) subsequently appointed under this contract shall be entitled to disregard or overrule any decision or approval or direction given or expressed in writing

2.1 Architect

M/s Collage Design,
300, SaiSampanna,
Station Road
Vikroli- East

3.0. CLAUSE OF CONTRACT

3.1. Type of tender

The contract is Item Rate. Quantities set out in the Schedule of Quantities are tentative. Tenderers shall quote for each item at the place given in the Schedule of Quantities. Cost evaluation shall be based on these quantities and price quoted. Work shall be measured in actual and paid as per terms set out in the Contract.

3.2. Period of mobilization

Period of Mobilization shall be as specified in Schedule – “F” and will start after 15 days from the date of letter of intent to the successful tenderer. The contractor shall carry out following activities within period stated in Schedule – “F”. He shall submit within 4 days of the letter of intent by the Employer to the EIC his proposed layout plan showing location of offices, stores, godowns, yards, water, electric network etc. for the approval of the IITB. Minimum following activities shall be completed during 15 days of mobilization period

Submitting bar chart program as detailed in clause 3.6.0 (method of carrying out work) hereof and its approval by the Architect.

3.3. Jurisdiction

In case of any litigations under this Contract, the courts of law in the city of Mumbai only, shall have the jurisdiction.

3.4. Power and duties

3.4.1. Engineer-in-Charge (EIC)

The EIC shall be responsible for

- ☐ Execution of project including management and supervision on day to day basis,
- ☐ Issue detail working drawings
- ☐ Co-ordination between - Contractor and Employer,
- ☐ Hold site progress meeting on regular basis and write minutes,
- ☐ Disapprove work due inclusion of defective material
- ☐ Disapprove work due to bad workmanship
- ☐ Keep routine check of material testing
- ☐ Keep samples and test reports for approved / disapproved materials
- ☐ Instruct contractor on matters of urgency involving the safety or protection of persons and / or property
- ☐ Advice acceptance to the contractor with prior approval
 - a) Program
 - b) Materials
 - c) Interim and final bills
 - d) Variation
 - e) Extra items and their rates
 - f) Extension of time

3.5. RATES, PRICE QUOTED BY THE CONTRACTOR

3.5.1. Firm Rate

The rates shall be firm and shall not be subjected to any variation in cost of materials, labour or due to any other condition except as ordered by the EIC and provided for in the Contract.

3.5.2. Rate to Include

The rates and prices to be tendered in the Schedule of Quantities (BOQ) are for completed finished items of works and shall be completed in all respects. It shall be deemed to include all constructional plant, labour, supervision, materials, transport, all temporary works, temporary water and electric connections (if any), erection, maintenance, testing of materials, adopting & contractor's establishment / overheads, (of the Contractor and as issued by the Employer), hire charges if any, maintenance of all services and equipment clearing the Site, together with preparation of design & drawings pertaining to casting yard, shop drawing, fabrication drawing (if required), from work including staging for any height, stacking yard etc. all general risk, taxes, royalty, duties, cess, rate of GST, Building and other construction Workers welfare cess or any tax, levy or Cess applicable on inputs. Labour cess and other levies and duties of any public body or corporation (duly authorized to collect), ESIS, PF, insurance liabilities, obligations set out or implied in the tender or under obligations to work as Contractor, profits etc. shall be part of the Contractor's cost and no extra on any account acceptable.

3.5.3. Execution of Additional work

The successful tenderer is bound to carry out any items of work necessary for the completion of the job even though such items may not be part of his offer. The Contractor shall be instructed in writing by the EIC for such works and rates shall be settled as detailed above.

3.6.0. PROGRAMME AND METHOD OF WORKING

3.6.1. PROGRAMME OF WORK

The Contractor shall, within the stipulated time in Schedule "F" of Tender Form, submit to the EIC for his approval a detailed programme covering

- a) Description note explaining sequence of various activities.
- b) Bar chart
- c) Quarterly programme of supply of materials by the IIT Bombay, if any
- d) Quarterly cash flow indicating money to be earmarked by the IIT Bombay for the purpose of the contract.
- e) Programme for supply of working drawing
- f) Phased requirements of plant and equipment to be deployed by the Contractor.

3.6.2. Method of Working

The Contractor shall, within the stipulated time in Schedule "F" of Tender form, submit to the EIC for his approval following information

- a) Layout and details of Temporary Works that the Contractor wants to carry out of fulfill his obligation under the Contract, if required.

3.6.3. Within 7 days the EIC shall give their approval to proceed with Work with or without modification. However acceptance of programme and method of working as submitted by the Contractor or with any modification there to in the opinion of the EIC, shall not relive the Contractor of any of his contractual obligations.

3.6.4. All these programme and plans submitted by the Contractor and approved by the EIC shall become part of the Contract.

3.6.5. The acceptance of programme as submitted by the Contractor or with any modifications there to in the opinion of the EIC, shall not release the Contractor from any of his obligation to complete the work within stipulated contract period or entitles him for extension of time unless delay, if any, is expressly sanctioned by the EIC.

3.6.6. Progress Photographs

Every week the Contractor shall take from digital camera minimum 15 coloured photographs as part of obligation, showing the progress of various stages of the Work, covering all site activities such as piling / excavation, finishes, PCC, centering, reinforcement, water proofing, concreting, etc. 30 selected photographs from the same shall be submit along with Monthly report. Size of photographs will be 125 mm x 250 mm. Photographs shall be supplied to the Engineers. Each photograph shall be attached with date of photograph and location of work. These photographs shall be from location as fixed by the Engineer at start of work.

3.7. Materials

- a) **MTC (Mill Test Certificate) from the companies shall be provided for materials as specified in BOQ and make list after completion of work.**

All the materials and manufactured goods are to be the best of their respective kinds and as described in the specifications, drawings and Schedule of Quantities. The Contractor shall submit for the approval of the EIC within a reasonable time after receipt of the Employer's order to commence the works, a list of the names and addresses of the manufacturers, the trademarks and types of all materials and articles he proposes to use / deploy tighter with all specifications and description and samples that may be required in this connection before any orders are placed. Within a reasonable time the EIC shall issue written decision on the Contractor's proposals. If any of the manufacturers, materials, etc. have been rejected then the Contractor must propose acceptable alternative within one week of such rejection. The EIC's decision shall be final and binding on the Contractor.

- b) The contractor shall submit to the EIC copies of all orders for materials.

- c) Where a particular proprietary product, supplier or supplier's catalogue is referred to in this specification or in the Schedule of Quantities, the material specified is for quality type, etc. other equal and approved source shall be permitted in use subject to meeting standards.
- d) If, during the course of the Contract, certain materials required for use in the Works should be unobtainable despite the best efforts of the Contractor, then the Contractor may offer substitute materials for the approval of the EIC. These substitute materials, although not complying fully with the specifications, must never the less be suitable and appropriate for use in the Works.
- e) Acceptance or refusal of such substitute materials shall be at the sole discretion of the EIC. In the event of acceptance of the substitute materials a suitable price reduction shall be made in respect of decrease in quality or value but no price addition shall be made in respect of increase in quality or value. In the event of refusal of the substitute materials, the Contractor shall not be relieved of any of his obligations under the Contract and shall be solely liable for any delay or loss occasioned by his failure to provide materials as specified.

3.8. Samples

The Contractor shall furnish for approval, with reasonable promptness, samples of all materials and workmanship. The EIC shall check and confirm in consultation with Architect / Consultants, approval of such samples with reasonable promptness only to conform with the design concept of the Works and for compliance with the information given in the contract documents. The work shall be in accordance with approved samples. The procedure for submission and approval of samples shall be as follows; -

- a) All material samples in duplicate shall be delivered to the EIC's office at the Contractor's cost. Samples shall be properly labeled with
 - ☐ Name of Project
 - ☐ Name of Contractor
 - ☐ Name Product
 - ☐ Name of Manufacturer
 - ☐ Reference No of Schedule of Quantities (BOQ)
 - ☐ Date of Submission
 - ☐ Date of fabrication / casting – if applicable
- b) Samples shall be accompanied with technical specification / manufacturer's catalogue
- c) In case the Contractor intends to keep an approved sample in his possession he shall submit one additional samples for the EIC's approval.
- d) Samples shall be furnished well in advance to give the EIC reasonable time for their consideration.

4.0. TAXES, LEVIES, DUTIES

4.1. The Contractor shall be responsible to pay to the appropriate authorities all taxes, levies, royalties, GST Income Tax, Building and other Construction Workers Welfare Cess. etc as applicable from time to time.

4.2. Electric, Water and sewerage charges payable for permanent connection to the local authorities shall be deposited by the Employer or reimbursed to the contractor as per direction of the EIC

4.3. ESIS, Provident Fund and Insurance

The Contractor shall be responsible to pay to the authority as applicable ESIS, PF, within his quoted rates. He shall be responsible to obtain certificate of payment for previous bills from respective authority before next R.A. Bill is released by the EIC.

The Contractor shall be responsible to take as specified insurance such as CAR policy, Third Party, Workmen's compensation, etc. for the period of construction and maintenance as per contract.

5.0. SITE FACILITIES

5.1. Water Supply

Water shall be provided free of cost.

.

5.2. Electric Supply for Works etc.

- a) Electric power both for construction and lighting shall be made available by the Employer at one point within site or near site. The Contractor shall arrange at his own cost the necessary switch board, and other switch gears, etc., and shall be responsible for their maintenance. The contractor will provide his own energy meter and will also be charged at **Rs. 16.20** per unit and prevailing rate applicable at time to time and the same will be recovered from RA bill. Contractor will be charged Demand charges and penalties for Power factor as applicable.
- b) Further distribution shall be done by the Contractor at his cost as per approved layout. He shall provide required clearances for overhead lines shall be facilitate easy movement of machinery. These overhead lines shall be shifted and rerouted at the Contractor's cost during execution of work if the same are found to obstruct any other work of any agency working at site or requires to be shifted due to unforeseen reasons.
- c) On completion of the Work, the Contractor shall to the satisfaction of the EIC, remove all wiring installed by him and make good, any disturbance or damage done.
- d) The Contractor shall employ a certified and licensed Electrician for carrying out this work.

5.3. Contractor's Offices, Godowns, Workshop

The Employer shall allow at his own discretion and convenience rent free land for the construction of the Contractor's site office, godowns, workshop assembly yard near the site. The Contractor shall construct and maintain at his cost, all these temporary works which shall be well ventilated, lighted and provided with water, electricity and sanitary arrangement to the approval of the EIC.

The Contractor shall remove immediately on completion of the work such building and make good, to the satisfaction of the EIC, all the damages sustained. The Employer through the EIC may order, if so required by the Employer removal of such building or buildings and the Contractor shall carry out such instructions at no additional cost to the Contract.

6.0. LABOUR ACCOMMODATION (NOT APPLICABLE)

6.1 IITB shall not provide land for labour hutments in the campus. Contractor has to make arrangement of labour hutment on their own.

~~6.1 Space uptosqm at a suitable location approved by IITB shall be provided construction of labour accommodation by IITB at contractor's own cost. Contractor will pay Rs. 250/- per month as licence fee charges per hutment of 3 x 3 mtr size. The whole area will be cordoned off by chain link fencing. Hutments shall be neatly constructed along with proper toilet facilities including soak pits etc. the contractor will provide his Name Board & shall strictly follow the Security regulation of IITB Security and instructions issued from time to time.~~

- 1.2 Crèche for children of labor deployed in the work shall be provided by IITB and amount of **Rs.8,000/-** per month shall be deducted from the running bill of the contractor.

7.0. NAME BOARD

The Contractor shall prepare and display name board at site as per approved designed by the Architect. It shall have

- ☐ Name of Project
- ☐ Name of Employer
- ☐ Name of Architect
- ☐ Name of Consultants
- ☐ Name of Contractor

8.0. DISPOSAL OF RUBBISH

- i). The Contractor shall cart away from site and deposit where directed by the EIC all refuse, etc. arising from the Works both as it accumulates, at completion of the Works or at the direction of the EIC.
- ii). It is responsibility of the Contractor to obtain a certificate from the local authorities concerned to the effect that all rubbish arising out of Contractor's activities at the construction site or any other offsite activities borrow pits and / or disposal area (s) has been properly disposed off.

This certificate from the authority shall be dated not later than the (last) Certificate of Completion of Works and is to be enclosed with the Payments Certificate in which the contractor requests for payment of any Retention money due to him.

9.0. DEFECTS LIABILITY PERIOD (REVISED CLAUSE NO. 17 OF CLAUSE OF CONTRACT)

9.1. Definition of 'Period of Maintenance' (Defect Liability Period)

In these conditions the expression "Period of Maintenance" (Defect Liability Period) shall mean the Period of Maintenance (Defect Liability Period) named in the Schedule – "F", calculated from the date of virtual completion of the Works, certified by the IITB or in the event of more than one certificate having been issued by the IITB, from the respective dates so certified and in relation to the Period of Maintenance (Defect Liability Period) the expression "the Works" shall be construed accordingly.

9.2. Execution of Work of Repair etc.

To the intent that the Works shall, at or as soon as practicable after the expiry of the Period of Maintenance (Defect Liability Period), be delivered to the Employer in the conditions required by the Contract, fair wear and tear excepted, to the satisfaction of the Architect, the Contractor shall finish the work, outstanding if any at the date of completion, as certified under the clause of Virtual Completion Certificate hereof, as soon as practicable after such date and shall execute all such work of repair, amendment, reconstruction,

rectification and making good defects, imperfections, shrinkages or other faults as may be required of the Contractor in writing by the Architect during the Period of Maintenance (Defect Liability Period), or within fourteen days after its expiry, as a result of an inspection made by the EIC on behalf of the Architect prior to its expiry.

9.3. Cost of Execution of Works of Repairs etc.

All such work shall be carried out by the Contractor at his own expense in a reasonable times as shall be instructed by the EIC if the necessity thereof shall, in the opinion of the EIC, be due to the use of materials or workmanship not in accordance with the Contract, or to neglect or failure on the part of the Contractor to comply with any obligation, expressed or implied, under the contract. If, in the opinion of the EIC, such necessity shall be due to any other cause, the value of such Work shall be ascertained and paid for as if it were additional Works.

9.4. Remedy on Contractor's Failure to carry out Work required

If the Contractor shall fail to do any such Work as aforesaid required by the EIC within a reasonable time, the Employer shall be entitled to employ and pay other persons to carry out the same at the risk and cost of the Contractor for which he shall be responsible and if such Work is that which, in the opinion of the EIC, the Contractor was liable to do at his own expense under the Contract, then all expenses consequent thereon or incidental thereto shall be recoverable from the Contractor by the Employer, or may be deducted by the Employer from any monies due or which may become due to the Contractor towards cost of amending such Works and in the event of the amount retained hereof being insufficient, recover the balance from the Contractor, together with any expenses the Employer may have incurred in connection therewith.

The Contractor shall remain liable under the provisions of this clause notwithstanding the signing of any certificate or the passing of any accounts, by the EIC.

The Period of Maintenance (defect Liability Period) shall be as specified in Schedule "F" from the date of Virtual completion certificate issued by the Architect / EIC in accordance with clause no. 7.0 of General Conditions of Contract for all works. The Contractor will be required to post his representative at site for immediately taking care of rectification works, if any, during the Defects Liability Period of two years.

10.0. QUALITY AUDIT

The Institute may decide to conduct quality audit at regular intervals on the works done by the contractor by way of Rebound hammer Tests, USPV and other applicable test, etc. the Contractor will be required to provide logistic supports for such activities by way of arranging approaches, ladders, scaffolding, manpower, etc. to the Institute for conducting such audits at no extra cost to the Contract.

11.0. WORKING TIMINGS

Working hours shall be between 7:00 Hrs to 22:00 Hrs. However, the Contractor shall make sure the noise level shall be restricted and surround areas shall not be disturbed. In case of any complaint, it shall be stopped immediately and the Contractor shall take all the precautions to restrict the noise level.

In addition work shall not be done on holiday's viz. Saturday, Sunday and Public Holidays except with prior approval of the Employer through EIC.

12.0. IDLE CHARGES FOR TOOLS, PLANTS, MACHINERY, ETC.

The Contractor shall not be paid any idle charges for any delays referred in clause Suspension of Work Clause no. 15, however any delays accepted by EIC / Employer on account of Employer's part, EIC / Employer shall allow extension of time only and no idle charges for tools, plants, machineries, equipments, labour wages, loss and profit, overheads etc. shall be paid by the Employer.

13.0. COORDINATION WITH OTHER CONTRACTORS / AGENCIES

The contractor shall at all times co-ordinate with all other contractors / vendors / suppliers on the site including any specialized contractor / agencies without any hindrances and extra cost and allow them to carry out their works smoothly and efficiently. No time delays will be acceptable and/or allowed due to lack of coordination between the contractor and the other contractors to be appointed at the site by the employer.

14.0. ESIS, Provident Fund and Insurance

The Contractor shall be responsible to pay to the authority as applicable ESIS, PF within his quoted rates. He shall be responsible to obtain certificate of payment for previous bills from respective authority before next R.A Bill is released by the EIC.

The Contractor shall be responsible to take as specified insurances such as CAR policy, Third Party, Workmen's compensation, etc for the period of construction and maintenance as per contract.

15.0. INSURANCES TO BE TAKEN BY THE CONTRACTOR & EMPLOYER TO BE INDEMNIFIED

(1) Insurance of Works etc

(a) The Contractor shall affect Contractor's all risk insurance policy (CAR policy) in the joint names of the Employer and the Contractor, the name of the former being placed first in the policy, covering the following:

- (i) The works at the Contract price together with the materials for incorporation in the Works at their replacement value.
- (ii) All plants and equipments and other things brought to the site by the Contractor at their replacement value.
- (iii) Employer's building rented to the Contractor if the building or part thereof is used by the Contractor for the purpose of storing or using materials of combustible nature, on which the decision of the Engineer-in-Charge shall be

final and binding.

- (b) The insurance shall be against all losses or damages from whatever causes, other than excepted risks, as defined in Clause 2 of Conditions of Contract, for which the Contractor is responsible under the Contract. The insurance cover shall be for the period of Contract and also for the period of maintenance, for loss or damage arising from a cause prior to commencement of the period of maintenance, and for any loss or damage, occasioned by the Contractor in the course of any operations carried out for the purpose of complying with his obligations during Maintenance Period under Clause 17 of Clauses of Contract.
- (c) Such insurance shall be affected with an insurer and with terms approved by the Employer. The Contractor shall, whenever required, produce the policy or policies and the receipts for payment of the current premiums.

(2) Third Party Insurance

- (a) Before commencing the execution of the Works, the Contractor shall insure against the liability for any material or physical damage, loss injury or death which may occur to any property or life including that of the Employer or to any person, including any employee of the Employer, by or arising out of the execution of the Works or in the carrying out of the Contract. The sum insured will be for an amount specified in Schedule 'F' (Refer Section 4). After each occurrence, Contractor shall pay additional premium necessary to make insurance valid for four occurrences always The Insurance Policy should cover this amount at all times till issue of Completion Certificate by the Engineer-in-Charge.
- (b) Such insurance shall be affected with an insurer and its terms approved by the Employer. The Contractor shall, whenever required, produce before Engineer the policy or policies of insurance and the receipts of payment of the current premiums.

(3) Workmen's Insurance

- (a) The Employer shall not be liable for any payment in respect of any damages or compensation payable according to law in respect or in consequence of any accident or injury or loss of life to any workman or other person in the employment of the Contractor or any sub-Contractor, except an accident or injury resulting from any act or default of the Employer, his agents or servants. The Contractor shall insure against such liability with an insurer approved by the Employer for a sum as per established norms during the entire period till completion of Period of Maintenance.

(4) Recovery from the Contractor

Without prejudice to the other rights of the Employer against the Contractor in respect of such default, the Employer shall be entitled to deduct from any sums payable to the Contractor the amount of any damages, compensation costs, charges and other expenses paid by the Employer and which are payable by the Contractor under this clause.

(5) Shortfall in payment to Contractor by the Insurance Company

In all cases where the Contractor has taken any insurances, he shall not be entitled to reimbursement by the Employer of any shortfall or deficiency in the amount payable by the Contractor towards settlement of claims and that paid by the insurer in settlement of same claim.

(6) Insurance by Sub-Contractors

Without prejudice to his liability under this clause the Contractor shall also cause all Sub-Contractors to effect, for their respective portions of the works, similar policies of insurance in accordance with the provisions of this clause and shall produce or cause to produce to the Employer such policies. The Contractor shall not permit a Sub-Contractor to commence work at the site unless the said insurance Policies are submitted. In the event of failure of the Sub-Contractor to take out such a policy of Insurance before commencing the works at the site, the Contractor shall be responsible for any claim or damage attributable to the said Sub-Contractor.

(7) Period of Policies

All the insurance covers mentioned above shall be kept alive during the complete period of the Contract until the Contractor obtains a Maintenance Certificate from the Employer as explained in Clause 17.

(8) Remedy on Contractor's Failure to Insure

If the Contractor shall fail to effect and keep in force the insurances referred to above, or any other insurance which he may be required to effect under the terms of the Contract, then and in any such case the Employer on advice of the Engineer-in-charge may effect and keep in force any such insurance and pay such premium or premiums as may be necessary for that purpose and from time to time deduct the amount so paid by the Employer as aforesaid from any moneys due or which may become due to the Contractor, or recover the same as debt due from the Contractor.

(9) Damage to Persons and Property - Employer to be indemnified

The Contractor shall indemnify the Employer against all losses and claims in respect of injuries or damages to any person or material or physical damage to any property

whatsoever which may arise out of or in consequence of the execution and maintenance of the works and against all claims, proceedings, damages, costs, charges and expenses whatsoever in respect of or in relation thereto, except any compensation or damages for or with respect to:

a)The permanent use or occupation of land by the works or any part thereof.

b)The right of the Employer to execute the works or any part thereof on, over, under,
in or through any land.

c)Injuries or damage to persons or property caused by Excepted risks or resulting from any act or neglect of the Employer, his agents, servants or other Contractors, not being employed by the Contractor or for or in respect of any claims, proceedings, damages, costs, charges and expenses in respect thereof or in relation thereto. Where the injury or damage was contributed to by the Contractor, his servants or agents, such part of the compensation as may be just and equitable having regard to the extent of the responsibility of the Employer, his servant or agent or other Contractors, for the damage or injury.

16.0. SECURITY FORMALITIES

Contractor has to take all necessary permissions, make requisite checks, provide employer's card etc. as per requirements of Security Formalities of IITB Campus.

17.0. FOLLOWING OF GRIHA NORMS DURING CONSTRUCTION PHASE (NOT APPLICABLE)

The project will be certified under **GRIHA** norms. The contractor shall at all times follow certain methodology e.g. barricading of construction site, guarding of trees at site, storage of construction waste, preservation of top soil, cleaning of vehicles etc. to meet the requirement of GRIHA, during construction phase. These methodologies are explained in detailed as "**Standard Operating Procedure for GRIHA during construction**" attached as "Annexure" in the Bill of Quantities".

The expenditure on this account shall be borne by the contractor and no extra cost shall be acceptable.

* * * * *

PROFORMA OF REGISTERS

REGISTER OF MATERNITY BENEFITS

(Clause 19 F)

Name and address of the contractor_____

Name and location of the work_____

Name of the employee	Father's/husband's name	Nature of employment	Period of actual employment	Date on which notice of confinement given
1	2	3	4	5

Date on which maternity leave commenced and ended

Date of delivery / miscarriage	In case of delivery		In case of miscarriage	
	Commenced	Ended	commenced	Ended
6	7	8	9	10

Leave pay paid to the Employee

In case of delivery		In case of miscarriage		Remarks
Rate of leave pay	Amount Paid	Rated of leave pay	Amount Paid	
11	12	13	14	15

SPECIMEN FORM OF THE REGISTER, REGARDING
MATERNITY BENEFIT ADMISSIBLE TO THE CONTRACTOR'S LABOUR

Name and address of the
contractor_____

Name and location of the
work_____

1. Name of the woman and her husband's name
2. Designation
3. Date of appointment
4. Date with months and years in which she is employed
5. Date of discharge/dismissal, if any
6. Date of production of certificates in respect of pregnancy
7. Date on which the woman informs about the expected delivery
8. Date of delivery/miscarriage/death
9. Date of production of certificate in respect of delivery/miscarriage
10. Date with the amount of maternity/death benefit paid in advance of expected delivery
11. Date with amount of subsequent payment of the maternity benefit
12. Name of the person nominated by the woman to receive the payment of the maternity benefit after her death
13. If the woman dies, the date of her death, the name of the person to whom maternity benefit amount was paid, the month thereof and the date of payment
14. Signature of the contractor authenticating entries in the register
15. Remarks column for the use of inspecting Officer.

APPENDIX "ILL"
LABOUR BOARD

Name of
work _____

Name
Contractor _____

Address of
Contractor _____

Name of Labour Enforcement
Officer _____

Address of Labour Enforcement
Officer _____

Sl. No.	Category	Minimum wage fixed	Actual wage paid	Number wage paid	Remarks

Weekly
holiday _____

Wage
period _____

Date of payment of
wages _____

Working
hours _____

Rest
interval _____

WAGES SLIP

Name and address of contractor.....

Name and Father's/Husband's name of workman.....

Nature and location of work.....

For the Week/Fortnight/month ending.....

1. No. of days worked.....
2. No. of units worked in case of piece rate workers.....
3. Rate of daily wages/piece rate.....
4. Amount of overtime wages.....
5. Gross wages payable.....
6. Deduction, if any.....
7. Net amount of wages paid.....

Initials of the Contractor or his representative

EMPLOYMENT CARD

Name and address of contractor.....

Name and address of establishment in / under which contract is carried on.....

Name and location of work.....

Name and address of Principal Employer.....

1. Name of the workman
2. Si. No. in the register of workmen employed.....
3. Nature of employment /designation
4. Wage rate (with particulars of unit in case of piece work).....
5. Wage period
6. Tenure of employment
7. Remarks

Initials of the Contractor or his representative

REGISTER OF WORKMEN EMPLOYED BY CONTRACTOR

Name and address of contractor _____

Name and address of establishment under which contract is carried on _____

Nature and location of work _____

Name and address of Principle Employer _____

Sl. No.	Name and Surname of workman	Age and Sex	Father's / Husband's name	Nature of employment / designation	Permanent home address of the workman (Village and Tehsil, Taluk and Districts)	Local address	Date of commencement of employment	Signature or thumb impression of the workman	Date of termination of employment	Reasons for terminations	Remarks
1	2	3	4	5	6	7	8	9	10	11	12

MUSTER ROLL

Name and address of contractor _____

Name and address of establishment under which contract is carried on _____

Nature and location of work _____

Name and address of Principle Employer _____ For the Month of fortnight _____

Sl. No.	Name of Workman	Sex	Father's/Husband's name	Dates	Remarks
1	2	3	4	5	6

1

2

3

4

5

REGISTER OF WAGES

Name and address of contractor_____

Name and address of establishment under which contract is carried on _____

Nature and location of work _____

Name and address of Principle Employer_____ wages period: Monthly / Fortnight_____

Sl.	Name of	Serial	Designation	No. Of	Units	Daily	Amount of wages earned	Deduc	Nett	Signatur	Initial
-----	---------	--------	-------------	--------	-------	-------	------------------------	-------	------	----------	---------

No.	Workman	No. in the register of workman	nature of work done	days worked	of work done	rate of wages / piece rate	Basic wages	Dearness allowance;	Overtime	Other cash payments (Indicate nature)	Total	tion : if any, (Indicate nature)	amount paid	e or thumb impression of the workman	of contractor or his representative.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

WAGE CARD

Name and address of contractor _____ Date of Issue _____

Nature and location of work _____ Designation _____

Name of workman _____ Month / Fortnight _____

Rate of Wages _____

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Morning

Rate Amt.

Evening

Initial

Received From _____ the sum of Rs. _____ on account of my wages

The Wage Card is valid for one month from the date of issue

Signature

SERVICE CERTIFICATE

Name and address of contractor _____

Nature and location of work _____

Name and address of workman _____

Age or date of birth _____

Identification marks _____

Father's / Husband's name _____

Name and address of establishment under which contract is carried on _____

Name and address of Principle Employer _____

Sl. No.	Total period which employed		Nature of Work Done	Rate of wages (With particulars of unit in case of piece work)	Remarks
	From	To			
1	2	3	4	5	6

REGISTER OF FINES

Name and address of contractor_____

Name and address of establishment in under which contract is carried on _____

Nature and location of work _____

Name and address of Principle Employer_____

Sl. No.	Name of Workman	Father's / Husband's name	Designation nature of employment	Act / Omission for which fine imposed	Date of Offence	Whether workman showed cause against fine	Name person in whose presence employee's explanation was heard	Wage period and wages payable	Amount of fine imposed	Date on which fine realized	Remarks
1	2	3	4	5	6	7	8	9	10	11	12

REGISTER OF DEDUCTION FOR DAMAGE OR LOSS

Name and address of contractor_____

Name and address of establishment in under which contract is carried on _____

Nature and location of work _____

Name and address of Principle Employer_____

Sl. No.	Name of workman	Father's/Husband's name	Designation nature of employment	Particulars of damage or loss	Date of damage or loss	Whether workman showed cause against deduction	Name of person in whose presence employee's explanation	Amount of deduction imposed	No. of installments	Date of recovery		Remarks
										First installment	Last installment	
1	2	3	4	5	6	7	8	9	10	11	12	13

REGISTER OF ADVANCES

Name and address of contractor _____

Name and address of establishment in under which contract is carried on _____

Nature and location of work _____

Name and address of Principle Employer_____

Sl. No.	Name of workman	Father's / Husband's name	Designatio n nature of employe nt	Wage Period and Wages payable	Date and amount of Advanc e given	Purpose(s) for which Advance made	Number of installmen ts by which advance to repaid	Date and amount of each installment repaid	Date on which last installmen t was repaid	Remarks
1	2	3	4	5	6	7	8	9	10	11

REGISTER OF OVERTIME

Name and address of contractor _____

Name and address of establishment in under which contract is carried on _____

Nature and location of work _____

Name and address of Principle Employer _____

Sl. No.	Name of workman	Father's / Husband's name	Sex	Designation / nature of employment	Date which on Overtime worked	Total overtime worked or production in case of piece rated	Normal rate of wages	Overtime rate of wages	Overtime earnings	Rate on which overtime wages paid	Remarks
1	2	3	4	5	6	7	8	9	10	11	12

FORM OF PERFORMANCE SECURITY (GUARANTEE)

BANK GUARANTEE BOND

1. In Consideration of Dean IPS on behalf of Director IITB having offered to accept the terms and conditions of the proposed agreement between _____ and _____ (herein after called "the said Contractor(S)") for the work _____ (hereinafter called "the said agreement") having agreed to production of a irrevocable Bank Guarantee for Rs. _____/- (Rupees _____ only) as a security / guarantee from the contractor (S) for compliance of his obligations in accordance with the terms and conditions in the said agreement.

We, _____ (hereinafter referred to as " the Bank")
hereby undertake
(indicate the name of the bank)
to pay to the IITB an amount not exceeding Rs. _____/- (Rupees
_____ only) on demand by the IITB.

2. We, _____ do hereby undertake to pay the amount due and Payable

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

3. We, the said bank further undertake to pay the IITB any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto. Our liability under this present being absolute and unequivocal.

The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the Contractor (s) shall have no claim against us for making such payment.

4. We, _____ further agree that the guarantee herein contained shall

(indicate the name of the bank)

remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the IITB under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Engineer – in – Charge on behalf of the IITB certified that the terms and conditions of the said agreement have been fully and properly carried out by the said agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.

5. We, _____ further agree with IITB that the Institute

(indicate the name of the bank)

shall have the fullest liberty without our consent and without affecting in any manner our obligation hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor (S) from time to time or to postpone for any time or from time to time any of the powers exercisable by the institute against the said contractor (s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act of omission on the part of the IITB or any indulgence by IITB to the said Contractor (s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

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

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

(indicate the name of the bank)

with the previous consent of IITB in writing.

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

Dated the _____ day of _____ for _____ (indicate the name of the bank)

PROFORMA OF BANK GUARANTEE FOR EMD

(On Stamp Paper of Rs.100/-)

To,

WHEREAS, contractor _____ (Name of Contractor) (hereinafter called "the contractor") has submitted his tender dated _____ (date) for the construction of _____ (name of work) (hereinafter called "the tender")

KNOW ALL PEOPLE by these presents that we _____ (name of bank) having our registered office at _____ (hereinafter called "the bank") are bound unto Dean IPS IITB (Name of the Engineer-in-charge) (hereinafter called "the Engineer-in-charge") in the sum of Rs. _____ (Rs. In words _____) for which payment well and truly to be made to the said Employer the Bank binds itself, his successors and assigns by these presents.

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

THE CONDITIONS of this obligation are:

1. If the tender opening the Contractor withdraws, his tender during the period of validity of tender (including extended validity of tender) specified in the Form of Tender;

2. If the contractor having been notified of the acceptance of his tender by the Engineer-in-charge.
- a) fails or refuses to execute the Form of Agreement in accordance with the Instructions to contractor, if required; OR
 - b) fails or refuse to furnish the Performance Guarantee, in accordance with the provisions of tender document and Instructions to contractor,
 - c) We undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without the Employer having to substantiates his demand, provided that in his demand the Employer will note that the amount claimed by his due to him owing to the occurrence of one or any of the above conditions, specifying the occurred condition or conditions.

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

DATE _____
BANK SEAL

SIGNATURE OF THE

WITNESS _____

(SIGNATURE, NAME & ADDRESS)

*Date to be worked out on the basis of validity of 6 months from last date of receipt of tender.

PROFORMA FOR GUARANTEE TO BE EXECUTED BY CONTRACTORS FOR STABILITY OF PILE FOUNDATION SYSTEM AGAINST RISK OF SETTLEMENT & OTHER TYPE OF DISTRESS TO THE BUILDING(S)

This Agreement made this day of Two thousand between M/s. (hereinafter called the Guarantor of the one part) and the Director IITB (hereinafter called the Employer of the other part).

Whereas this Agreement is supplementary to a contract (hereinafter called the Contract) dated..... and made between the Guarantor of the one part and the Government of the other part whereby the contractor interalia undertook to render the damages caused to the buildings and structure to the satisfaction of the Department.

AND WHEREAS THE GUARANTOR agreed to give a guarantee for the stability of pile foundation system against the risk of settlement and against all damages caused to the buildings erected on pile foundation system for a period of five (5) years from the certified date of completion.

NOW THE GUARANTOR hereby guarantees that the stability of the pile foundation system provided by him will render the structures completely free from settlement and any other type of distress for a period of five (5) years to be reckoned from the certified date of completion of the work.

During this period of guarantee, if the Guarantor fails to execute necessary rendering work due to damages/distress caused to the buildings and structures for settlement of pile foundation system or commits breach thereunder, then the Guarantor will indemnify the principal and successors against all loss, damage, cost, expense or otherwise which may be incurred by the Department by reason of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and/or damage and/or cost incurred by the Government, the decision of the Engineer-in-charge shall be final and binding on the contractors.

IN WITNESS WHEREOF these presents have been executed by the Obligor..... and by.....and for and on behalf of the Director IITB on the day, month and year first above written.

SIGNED, sealed and delivered by (OBLIGATOR) in the presence of :

(1)

(2)

SIGNED FOR AND ON BEHALF OF THE Director
IITB BY.....in
the presence of :

(1)

(2)

FORM OF AGREEMENT

ARTICLES OF AGREEMENT made this _____ day of _____ Two Thousand _____

BETWEEN

_____ (herein after referred to as “the Employer” which expression shall include its successors and assigns where the context so admits) of the one point.

AND

_____ (herein after referred to as “the Contractor” which expression shall include their heirs, executors, administrators and assigns where the context so admits) of the other part.

WHEREAS

The Employer is desirous that certain Works should be executed, viz _____

_____, and has accepted Tender by the Contractor for the execution completion and maintenance of such Works NOW THIS AGREEMENT WITNESSETH as follows:-

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contractor hereinafter referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz:-
 - (a) The said Tender
 - (b) The Drawings
 - (c) The Conditions of Contract (Volume – I)
 - (d) The Specifications (Volume – II)
 - (e) The Bills of Quantities (Volume – III)

(f) The Letter of Acceptance

3. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned the Contractor hereby covenants with the Employer to execute complete and maintain the Works in conformity in all respects with the provisions of the Contract.
4. The Employer hereby covenants to pay the Contractor in consideration of the execution and maintenance of the Works at the Contract Price at the time and in the manner prescribed by the Contract.
5. The particulars referred to in the various clauses of the Conditions of Contract are as given in Schedules A to F.

IN WITNESS whereof the parties hereto have caused of their respective Common Seals to be hereunto affixed (or have hereunto set their respective hands and seals) the day and year first above written.

The Common Seal of _____

_____ was hereunto affixed in the presence of:-

or

SIGNED SEALED AND DELIVERED by the said

in the presence of:-

* * * * *

PROFORMA OF SCHEDULES

(Operative Schedules to be supplied separately to each intending tenderer)

Name of work : “Proposed Renovation of Prof. Karthikeyan Hariharan’s Lab, S-216 and S-218, Second Floor, MEMS Dept. for Indian Institute of Technology Bombay within IITB campus Powai. Mumbai –400 076”

SCHEDULE ‘A’

Schedule of quantities - Envelope 2 – Volume III

SCHEDULE ‘B’

Schedule of materials to be issued to the contractor.

S. No.	Description of item	Quantity	Rates in figures & words at which the material will be charged to the contractor.	Place of issue
1	2	3	4	5
1.	a. Water for Construction Purpose	-	Water is available at site, free of cost	-----
	b. Water for Drinking purpose	-		
2.	Electricity	-	1 % of the bill value and if meter taken as per actual meter reading and prevailing rate applicable from time to time. Other charges as applicable.	One point within site or near site. Refer Clause 5.2 of Special Conditions of Contract.
3.	Labour hutment		NOT PERMITTED	Refer Clause 6 Special conditions of contract: LABOUR ACCOMMODATION

4	Creche for children of labour deployed in the work		NOT PERMITTED	Refer Clause 6Special conditions of contract: LABOUR ACCOMMODATION
5	Hard rocks/Stones /Rubble available from excavation			

SCHEDULE 'C'**Tools and plants to be hired to the contractor**

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

SCHEDULE 'D'

Extra schedule for specific requirements / document for the work, if any - Nil

SCHEDULE 'E'**Reference to General Conditions of Contract****Name of Work :**

"Proposed Interior & Renovation of Main Building Phase 1 consisting Civil, Interior, Electrical & Furniture works for Indian Institute of Technology Bombay within IITB campus Powai. Mumbai –400 076"

Estimated cost of work	:	Rs. 1594745/- (Exc GST)
i. Earnest Money	:	Rs. 31895/-
ii. Performance Guarantee	:	5% of tendered value.
iii. Security Deposit	:	5% of tendered value.

SCHEDULE 'F'

General Rules & Direction : Officer inviting tender Dean (I.P.S) on behalf of Director IIT Bombay, Powai Mumbai 400 076.

Definitions :

2(v) Engineer-in-Charge	<u>Dean I.P.S.</u>
2(viii) Accepting Authority	<u>Dean I.P.S.</u>
2(x) Percentage on cost of materials and Labour to cover all overheads and profits.	15%
2(xi) Standard Schedule of rates	<u>based on estimates of IITB</u>
2(xii) Department	<u>Dean Infrastructure, Planning & Support</u>
<u>IITB</u>	

Clause 1

- i) Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance 15 days
- ii) Maximum allowable extension beyond the period provided in (i) above in days 7 days

Clause 2

Authority for fixing compensation under clause 2

Director IITB**Clause 2A**

Whether Clause 2A shall be applicable

~~Yes~~ / No**Clause 5**

Number of days from the date of issue of letter of acceptance for reckoning date of start

7 days

Mile stone(s) as per table given below:-

S. No.	Description of Milestone (Physical)	Time allowed (from date of start)	Amount to be with-held in case of non-achievement of milestone
1	Civil Work	0-4 weeks	As per Clause no. 2 & 5 in General Conditions of Contract
2	Finishing work and incorporation of services	04 -06weeks	
3	General finishes	06 -08 weeks	

Time allowed for execution of work

2 (Two) months (including monsoon).

Note:- The total amount that can be withheld due to non-achievement of any/all of the milestones shall not exceed 5% of tendered value as per contract.

Time allowed for execution of work

2(Two) Months (including monsoon).

Authority to decide:

- (i) Extension of time
- (ii) Rescheduling of milestones

Dean I.P.S.

Dean I.P.S.

Clause 6, 6A**Clause applicable – (6 or 6A)**

Clause 6A (Computerized

Measurement Book)

Clause 7

Gross work to be done together with net payment
/ Adjustment of advances for material collected, if
Any, since the last such payment for being eligible

Rs - 1 bill + final

To interim payment

Clause 10A

List of testing equipment's to be provided by the contractor at site lab.

- As required for the project

Clause 10B (ii)

- Whether clause 10B (ii) shall be applicable ~~Yes~~ / No (Mobilization advance Not Applicable)

Clause 10C – Component of labour expressed as percentage of value of work – 25%(NOT APPLICABLE)

Clause 10CA : NOT APPLICABLE

Clause 10CC : NOT APPLICABLE

Clause 10 CC to be applicable in contracts with stipulated period of completion exceeding the period shown in next column *18 months*

Schedule of component of other Materials, Labour, POL etc. for price escalation.

Component of civil (except materials covered under clause 10CA) and Electrical construction Materials expressed as percent of total value of work - *Xm - 39%*

Component of labour expressed as percent of total value of work - *Y - 25%*

Component of POL expressed as percent of total value of work - *Z - nil*

Clause 12

12.2 & 12.3	Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for building work	30%
	Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for works described under section “Sub-structure Works” of B.O.Q. includes para no. 5 of Clause 12	100%

Clause 16

Competent Authority for deciding reduced rates	Dean IPS
--	----------

Clause 17

Defect Liability Period	12 Months
-------------------------	-----------

Clause 18

List of mandatory machinery, tools & plants to be deployed by the contractor at site:-

- **Machinery and tools as required to be deployed by the contractor at site.**

Clause 36(i)

Sr. No.	Minimum Qualification of Technical Representative	Discipline	Designation (Principal Technical / Technical representative)	Minimum Experience	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 36(i)	
						Figures	Words
1	BE Civil (+ 10 years) / DCE (+ 15 years)	Civil	Project Manager	Min. 10 Yrs. in Bldg.	1	Rs. 40,000 per Month	Rupees Forty Thousand per month
2	BE / DCE (+ 5 years)	Civil & Elect. / Mech.	Site Engineer	Site Experience	2 (1 each)	Rs. 20,000 per Month	Rupees Twenty Thousand per month
4	H.S. / ITI	Civil & Elect. / Mech.	Site Supervisor	Relevant – 10 Yrs. Experience in Interior works.	2 (1 each)	Rs. 7,000 per Month	Rupees Seven Thousand per month

Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers.

Clause 42 – NOT APPLICABLE

RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION – NOT APPLICABLE

* * * * *

List of Drawings:

Sr. No.	Sheet no.	Sheet name	Scale
A.	Civil drawings		
1		Furniture Layout	FIT TO SCALE

MAKE LIST : ELV		
A	IT NETWORKING WORKS	
1	Patch Cord	Legrand/ Commscope / Amp
2	Cat 6 Cable	Commoscope/Amp/legrand/Molex
3	Patch Panel	Legrand / Commoscope / Amp
4	Server Rack	Legrand Valrack / Netrack/
B	CABLES AND CONTAINMENT	
1	ISI Marked <i>FRLS</i> 2 core x 1.5 mm ² , Multistrand Copper, <i>FRLS</i> Armoured cable, RED in Colour	Polycab / RR Cable
2	ISI Marked <i>FRLS</i> 2 core x 1.5 mm ² , Multistrand Copper, <i>FRLS</i> Armoured cable, Black in Colour	Polycab / RR Cable
3	<i>FRLS</i> 8c x 0.75 mm ² multistranded copper, Shielded, PVC sheathed Armoured Cable	Polycab / RR Cable
4	<i>FRLS</i> 4c x 0.75 mm ² multistranded copper, PVC sheathed Armoured Cable	Polycab / RR Cable
5	<i>FRLS</i> Cat-6e ,shielded, PVC sheathed Armoured Cable	Polycab / RR Cable
6	ISI Marked <i>FRLS</i> 2 core x 1.5 mm ² , Multistrand Copper, Armoured cable	Polycab / RR Cable
7	Signal cabling : Armoured <i>FRLS</i> Copper Flexible Conductor Shielded (Aluminium Mylar tape with ATC Drain wire of 0.75 Sq. mm),PVC insulated,PVCS heathed Cable as per IS : 694	Polycab / RR Cable
8	2Cx 1 sq. mm	Polycab / RR Cable
9	3Cx 1 sq mm	Polycab / RR Cable
10	4Cx 1 sq mm	Polycab / RR Cable
11	8Cx 1 sq mm	Polycab / RR Cable
12	20 mm / 25 mm GI Conduit and Fiitings	BEC / Wimco / Universal
13	20 mm / 25 mm PVC Conduit and Fiitings	Precision/Diamond

FURNITURE- MAKE LIST

ELECTRICAL MAKE LIST		
Sr No.	Item	Name of the manufacturers
1	Power panels manufacturer	Elecmech/Arrow/Goel Power/zenith
2	ACB	Legrand, L & T, Schneider Electric India
3	MCCB	Legrand, L & T, Schneider Electric India
4	MCB / MCBDB / RCCB / RCBOs	Legrand, L & T, Schneider Electric India
5	Panel Accessories	
5.1	Terminals and block connectors	Connectwell,Elmex.Waco
5.2	Control relays/timers	SELEC Controls Pvt. Ltd, Omron India
5.3	Selector switches	L & T India, Kaycee selector switches, Suraj Electronics and Electricals
5.4	Indicating lamps	Schneider Electric India , L&T India,Teknic,Vaishnav
5.5	Contactors	Schneider Electric India , L & T India,Legrand
5.6	All hardware components	Zinc plated with tensile strength of 8.8 grade
5.7	Aluminium bus bar	Hindalco LTD
5.8	Tinned Copper bus bar	Purity should be 99.9 %
5.9	Current transformers	Newteck, Trinity Energy
5.10	Load managers/measuring instruments	HPL ,Secure, Elmeasure, Rishabh,Newtek Electricals
6	SPD's	ZOTUP, OBO Bettermann, ASCO
7	ATS (Auto transfer switch)	ASCO
8	MTS (Manual transfer switch)	Socomec Innovative power solutions , Schneider Electric India, Eaton
9	Capacitors	Neptune Electrical Industries, L&T India, Schneider Electric India, Subodhan Engineers Pune Pvt. Ltd
10	Power Factor Correction Relay	Epcos,L&T,
11	Protective relays	L & T India, Schneider Electric India,
12	Busduct	Schneider electric , C & S, L & T,Legrand
13	Armoured LT cables (FRLS & XLPE)	Polycab,RR Cable, KEI,Apar industries,Gloster,Century
14	FRLS PVC insulated copper conductor single/multi core stranded wires of 1100 volt grade	Polycab,RR Cable, KEI,Rajanigandha,Gloster,
15	Lugs	Dowells, Braco Electricals,
16	Glands	Braco Electricals [India] Pvt. Ltd,Dowells, HMI,Comet,Raychem
17	PVC Glands	GEWISS, Raychem
18	GI Cable trays	Jaypee Power Control
		Profab Engineers Pvt. Ltd,
		Idiana
		Prakash Fabcon

19	GI Trunking IITB/Dean IPS/DC/Vimage Lab/INT	Jaypee Power Control
		Prakash Fabcon,
		Asian
		Idiana
20	GI/MS conduit and accessories	BEC Conduits Pvt. Ltd,AKG
21	PVC conduit and accessories	,Precision plastic industries pvt ltd ,BEC Conduits Pvt. Ltd,AKG,
22	Weatherproof junction boxes	GEWISS, Hensel,Legrand
23	Halogen free flexible conduit	GEWISS
24	Modular switch socket outlets,RG6 AND RJ 11 port	Legrand (Arteor, myrius), Honeywell MK(CITRIC,BLENZE PLUS)/L&T
25	Industrial sockets	Scame,Mennekes,Legrand,Gewiss,OBO Bettermann,PCE
26	Floor junction boxes for modular switches	DAVIS , Legrand, Honeywell MK
27	Workstation connector	Wieland Germany
28	LED light fixtures	Wipro/Philips
28.1	Flameproof light fixtures	Prateek explosionproof Pvt Ltd,Prolite,Panasonic
29	Decorative LED light fixtures	Wipro/Philips/Ledomatics
30	Lighting Sensors	Legrand, Philips Lighting
31	Exit signage's	Prolite/ Autoglow
32	Dimmers	Schneider Electric India,Smartek,Lutron,Crestron
33	Earth Electrode	CAPE,OBO Bettermann,Schneider Electric India
34	Earth conductor GI strip	Thickness of galvanisation 86 microns
35	Earth conductor CU strip	Copper Purity: 99.97 % (min)
36	Elastomeric Mat	Premier polyfilm led,Polyelectrosafe ,Challenger , Raychem RPG
40	PVC Raceways	MK, LEGRAND, OBO Bettermann
41	Aluminium Raceways	Jindal Aluminium Limitedl
44	Stabilizer	Servo , Krycard,Jindal ,Legrand Numeric
45	UPS System	APC (Schneider Electric India)
		Legrand (Numeric)
		Delta
		Vertiv (Emerson Network Power is now Vertiv)
44	UPS SMF Batteries	Quanta, Rocket, Global & Yuasa Battery Co. Ltd. Korea,Amara raja
45	Isolation Transformer	Datson
		Power Matrix
		Krycard

Time schedule

“Proposed Renovation of Prof. Karthikeyan Hariharan’s Lab, S-216 and S-218, Second Floor, MEMS Dept. for Indian Institute of Technology Bombay within IITB campus Powai. Mumbai –400 076”

NIT NO: IITB/DEAN IPS/DC/Prof. Karthikeyan Hariharan’s Lab /INT/2026 DATED:
13/08/2026

Completion period

2 (Two) months

