



RENOVATION OF CLASSROOMS AT K CLUSTER AT INDIAN INSTITUTE OF MANAGEMENT BANGALORE

TENDER DOCUMENT

Tel: 080-26993294/3360
e-Mail Id: vasudeva.m@iimb.ac.in
shivakumar.k@iimb.ac.in

INDEX

Sl. No.	Particulars	Page No.
1	INDEX	1
2	e-BID NOTICE	2
3	INSTRUCTIONS TO BIDDERS	3
4	GENERAL CONDITIONS OF CONTRACT	11
5	SPECIAL CONDITIONS OF CONTRACT	19
6	PRICE BID CONDITIONS	41
7	SCOPE OF WORK	44
8	SAFETY CONDITIONS	45
9	GENERAL BUILDING CONDITIONS	50
10	TECHNICAL SPECIFICATIONS	54
11	PROFORMAS	85

This Tender Document contains all the Pages, duly read, and accepted by Me/Us.

INDIAN INSTITUTE OF MANAGEMENT BANGALORE
Bannerghatta Road, BANGALORE -560 076

22nd August 2024

e-BID NOTICE

E-Bid participations are invited by IIMB from reputed firms for the work of “**RENOVATION OF CLASSROOMS AT K CLUSTER AT IIMB** as per the scope of work. Approximate value of the project is **Rs. 26,07,030/- + G.S.T as applicable.** (Rupees Twenty Six Lakhs Seven Thousand and Thirty rupees plus GST as applicable only).

E.M.D (Rs.)	Period of Completion	Online Issue of Bid Document	Last Date of Submission of Tender Document and Date of Opening of Technical bid	Date of Opening of Online Price Bid
1	2	3	4	6
Rs.65,200/-	45 Days	22.08.2024 to 13.09.2024	Submission of Online Tender: 13.09.2024, 15.00 Hrs Opening of Online Tender (Technical Bid): 17.09.2024, 15.00 Hrs	Qualified bidders will be auto intimated by CPP Portal.
Pre-bid Meeting			Date: 02.09.2024 Time: 15.30 hours Venue: Estate Office	

I. INSTRUCTIONS TO BIDDERS:

I.1. Bid Validity: 120 days from the date of opening of Online Price Bid.

I.2. The nature of the tender is Two Bid System i.e. Technical Bid and Price Bid. The rates are to be quoted only in the Online Closed Price Bid.

I.3. Period of Contract: Period of Contract is **Forty-Five Days**.

I.4. Downloading the Tender: The procedure for downloading the Tender Document and Price Bid is mentioned in this document.

I.5. Submission of Tender: Tender Document and Price Bid shall be submitted online only, in CPP Portal.

I.6. Defects Liability Period: TWELVE MONTHS from the date of completion of the work.

I.7. Downloading of Tender Document:

The bidders may download the Tender Document (Technical Bid only) from any of the below mentioned websites during the period mentioned above.

(a) IIMB Website: www.iimb.ac.in/tender_notices

(b) Central Public Procurement Portal (CPP) Portal

I.8. A) Notice Inviting Tender, any corrigenda / addenda issued, minutes of the Pre-Bid Meeting, replies given to clarifications raised by the bidders if any, form part of the Tender Document.

B) The bidder should check for any of the above uploaded in CPP Portal before submission of the Tender. If the bidder submits the tender before the due date, he should be regularly checking the portal for any of the above uploaded. If the revised price bid is uploaded, the bidder should download the Price Bid again, revoke already submitted price bid, quote the rates referring to the revised price bid and upload the same again.

If any bidder submits the tender before the due date and after his submission of tender, any corrigendum / addendum is uploaded which is directly or indirectly related to quoting in the price bid or submission of the supporting documents other than those prescribed in the tender, such bidder shall revoke the submitted price bid and resubmit the price bid with the revised rates if required and also submit the additional supporting documents.

C) If any bidder submits the tender without considering the corrigenda uploaded if any, or if any bidder does not submit the revised price bid, or if any bidder does not submit the additional supporting documents, the tender submitted by such bidder will be rejected summarily.

D) In case any bidder does not upload the revised price bid, the old price bid uploaded by him will not be considered and his tender gets rejected even though he is qualified in the Technical Bid.

I.9. Any information / clarifications required by the Bidder can be obtained from the Estate Section, IIMB during working hours on any working days till the date of submission of Tender Document OR at the time of pre-bid meeting.

I.10. PRE-BID MEETING:

I.10.A. Pre-Bid Meeting will be conducted before submission of the Tender. The bidders may send the clarifications to the email ids mentioned in this Tender Document and/or may attend the meeting in person. The pre-bid meeting will be conducted either offline or online as per the decision of the competent authority of IIMB. The intimation regarding the details of the pre-bid meeting will be provided in the CPP Portal.

I.10.B. Minutes of the Pre-Bid Meeting will be uploaded on CPP Portal. Minutes of the Pre-Bid Meeting forms part of the Tender. The bidder must check for the minutes of the Pre-Bid Meeting before submission of the Tender.

I.10.C. The bidders should download the minutes of the Pre-Bid Meeting, sign on the same with seal and upload it along with the other documents while submitting the Tender.

I.11. This being an item rate Contract, the rate quoted shall remain firm. The quantities shown against each item are only approximate and hence any reduction or increase thereof during the currency of the Contract shall not vitiate the Contract. **The quantity of actual work may increase or decrease, the bidder will have no claim on this account.**

I.12. The successful bidder, after award of the contract, must produce the following documents, before entering into agreement.

- a. Complete Tender Document with sign and seal of the authorized person
- b. Drawings with seal and sign of the authorized person
- c. Minutes of the Prebid Meeting with sign and seal of the authorized person
- d. Corrigenda if any with sign and seal of the authorized person

I.13. If any bidder leaves any cell blank or does not quote any rate or quotes as zero for any of the items, the tender submitted by such bidder shall be rejected summarily.

I.14. Site Visit by the bidder is mandatory. The bidder should visit the work site and obtain the Site Visit Certificate by IIMB and shall submit the copy of the certificate along with the tender.

I.15. ELIGIBILITY CRITERIA:

I.15.A. Financial position: Average annual financial turnover for the last five financial years should be Rs.13,04,000 /-. Documentary proof in support of the five years' financial status of the company shall be submitted.

In case any bidder submits the annual turnover documents for less than five years, i.e. 3 years only, the total of these three years will be divided by 5 and the average value arrived at will be considered as the average annual turnover of five years.

I.15.B. The bidder should submit the Solvency Certificate for the value of Rs.98,80,000/- issued by any Nationalized or Scheduled Banks only. The certificate shall be dated after 1st January 2024.

I.15.C. Experience: The bidder should have completed either one / two / three similar works / civil works during the last seven years, for the values as mentioned below.

Any one work for the value of Rs. 20,86,000/- excluding GST.

Any two works for the value of Rs. 13,04,000/- excluding GST.

Any three works for the value of Rs. 10,43,000/- excluding GST.

The bidder shall submit the proof of work done in any of the organizations mentioned below.

In Central or State Govt. / Central or State Govt. Autonomous Bodies / Central or State PSUs / Central or State PWD / MES / Railways / Institutes of higher learning equivalent to IIMB / Any Reputed Private Organization – The bidder should have completed the similar / civil work in any of the above mentioned organizations.

Note: Work Completion Certificate should be attached as proof of work done. In case the Work Completion Certificates are not issued, proof of payment received from the client shall be submitted – highlighting the related payment.

I.15.D. (a) The bidder should own a factory / production unit in Bangalore. Documentary proof including Factory address and contact details shall be submitted.

(b) If the bidder is not having his own Factory/production unit in Bangalore, an existing agreement/MOU for having a tie up with factory/production unit in Bangalore is acceptable and documentary proof for such tie up shall be provided along with the tender.

(c) IIMB reserves the right to inspect the production/factory unit as indicated by the bidder.

I.16. Evaluation of Tenders:

The bidders who fulfil all the requirements of the Essential Criteria will get qualified for evaluation of their technical bids.

The evaluation of the tenders will be done as per the criteria detailed below:

(a) Work experience (single work / two works / three works) (work experience mentioned under Clause I.15.C will be evaluated for the value of the work done.

(b) Work experience in any one of the organizations - Central or State Govt. / Central or State Govt. Autonomous Bodies / Central or State PSUs / Central or State PWD / MES / Railways / Institutes of higher learning equivalent to IIMB / Private Organizations.

The bidder is considered as qualified in the Technical Bid subject to satisfaction of the above two parameters.

I.17. Bidders should not have been carrying any adverse remarks in IIMB or other similar report from any authority.

Bidders who are debarred/ blacklisted by any Central / State Government organization / DGS&D / NCCF / Kendriya Bhandar / PSU during the last three years are not allowed to participate in the tender. In case the bidder is found to be debarred or blacklisted at any point of time during the evaluation period, tender of such bidder will become null and void and he will be declared as not qualified for opening of price bid.

The bidder shall submit a declaration in his office letterhead regarding non-blacklisting.

I.18. EARNEST MONEY DEPOSIT:

I.18.A. The bidder shall submit the EMD through online transfer to IIMB.

For online submission of EMD, the bidder shall pay the amount through RTGS/NEFT. The bank details of IIMB for online transfer:

Bank Name	: HDFC Bank Ltd
Bank Street Address	: J.P. NAGAR BRANCH, BANGALORE
Branch Code	: 0133
IFSC CODE	: HDFC 0000133
Customer HDFC Bank a/c name	: Indian Institute of Management
Customer HDFC Bank a/c number	: 01331450000019

Note: The proof of payment including name of the bank, amount of EMD, date of transfer, UTR No. shall be submitted along with the Tender in CPP Portal (in the field provided for uploading the EMD details).

I.18.B. Exemption from paying the EMD:

Earnest Money Deposit is compulsory for all the bidders including State Government / Statutory Bodies / Enterprises / Undertakings / MSME etc.

Bidders may note the fact that their registrations with any authority do not entitle them for exemption from payment of EMD.

I.18.C. NO INTEREST WILL BE PAID ON EMD DEPOSIT.

I.18.D. Any tender not accompanied by an acceptable Earnest Money Deposit and not secured in the payment modes as indicated above shall be rejected by the IIMB as non-responsive.

I.18.E. Forfeiture of EMD:

The Earnest Money Deposit shall be forfeited -

a) If the bidder withdraws from the Tender after tender opening during the period of tender validity

- b) In the case of a successful bidder, if the bidder fails within the specified time limit to:
- i) sign the Agreement within 10 days of issue of work order or
 - ii) commence the work or
 - iii) produce the required documents to IIMB mentioned in this document.
- c) In case, the bidder, after quoting, withdraws from the tender or refuses/delays in commencing the work even after issue of work order, the EMD will be forfeited.

I.18.F. BANK DETAILS OF THE BIDDER:

The bidders are required to submit the bank details along with the Technical Bid. The bank details are required to be filled in and submitted in the company letterhead, duly attested by the authorised person of the company and the banker. The bank details should be accompanied by a cancelled cheque duly attested by the banker. **(The format of the Bidder Bank Detail Form has been given in this document vide Proforma – B).**

I.18.G. RETURN OF EMD:

Unsuccessful Bidders:

- (a) Bidders not qualified in the Technical Evaluation – EMD will be returned after approval of Technical Evaluation.
- (b) Bidders who are unsuccessful in e-bidding – EMD will be returned after the issue of Work Order to L1 Bidder.

Successful Bidder:

EMD will be returned after completion of the Defects Liability Period, subject to fulfilment of obligations if any, by the contractor.

I.19. SECURITY DEPOSIT:

I.19.A. Seven Point Five percent (7.5%) of the Gross Value of each bill will be deducted as Security Deposit from the concerned RA Bill.

I.19.B. No interest will be paid on the Security Deposit.

I.19.C. The above deposit will be held by IIMB as security for the satisfactory performance of the contract. All compensations or other sums of money payable by the bidder to IIMB under the terms and conditions of this contract may be deducted from this security deposit or from any other sums that may be due or may become due to the bidder by IIMB on any account whatsoever, and in the event of the security deposit being reduced by reasons of any such deductions, the bidder shall within ten days thereafter make good these deductions.

I.19.D. No deposit will be recovered for work of routine maintenance works except for special works where maintenance period is essential and specifically stipulated in the contract etc., like tar-felting, water proofing etc.

I.19.E. LIEN IN RESPECT OF CLAIM IN OTHER CONTRACTS

Any Sum of money due and payable to the Contractor (including the security deposit refundable to him) under the contract may be withheld or retained by way of lien by

Renovation of Classrooms at K Cluster at IIMB

IIMB in respect of payment of a Sum of money arising out of or under any other contract made by the Contractor with the IIMB. It is an agreed term of the contract that the sum of money so withheld or retained under this clause by the IIMB will be kept withheld or retained as such by the IIMB 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 any other ground in respect of any sum of money withheld or retained under this clause and duly notified as such to the Contractor.

I.20. SUBMISSION OF BIDS:

The bidders should upload the soft copies of the Tender Document online in CPP Portal.

I.20.A. Submission of EMD:

The details of payment of EMD shall be uploaded in CPP Portal which are as under:

- (i) UTR Number of the payment transaction
- (ii) Bank Name, Date of transfer and amount of EMD paid

I.20.B. Submission of Technical Bids:

The following documents shall be signed with seal and uploaded under the field 'Mandatory Documents'.

- Documentary proof of Annual Turnover of previous 5 financial years
- Supporting documents – copies with seal and sign on every page
- Proformas – printed on Letterhead and seal and sign
- Copy of the Site Visit Certificate issued by IIMB
- Proof of Factory / Production Unit in Bangalore

I.20.C. Note: If these documents are not submitted, the bidder cannot complete the process of submission in the portal and his tender will be automatically treated as non-responsive and rejected.

I.20.D. Note: If any discrepancy is found in the documents submitted / if all the required documents are not submitted / if the documents are submitted in any other format, the prescribed authority may either ask for the documents or reject the tender. The decision is at the discretion of the employer.

I.20.E. The Employer/Engineer may, at his discretion, extend the last date of submission of the Tender by amending the Tender Documents in which case all rights and obligations of the Employer and the Bidder previously subject to the original date shall thereafter be subject to the new deadline as extended.

I.20.F. IIMB does not undertake to assign reason for rejecting any particular tender. The accepting authority also reserves the right to accept in full, or a part thereof or reject the tender or to divide the tender among more than one Bidders if deemed necessary without assigning any reason.

I.21. OPENING OF BIDS:

I.21.A. The Technical Bids will be opened as under:

- a) The Technical bids will be opened on the date and time mentioned in this document. Then the bids submitted will be evaluated for technical qualification.
- b) The Price Bids of the bidders who qualify in the Technical Bid will be opened.

I.22. REJECTION OF TENDERS:

I.22.A. If any alternations are made by the bidder in the Tender Documents, the Tender will be liable for rejection.

I.22.B. Any tender which proposes any alterations to any of the conditions laid down or proposes any other conditions of any description whatsoever is liable to be rejected.

I.22.C. The bidders are cautioned that not giving complete information called for in the application or not giving it in clear terms or making any changes in prescribed forms or deliberately suppressing the information may result in the application being summarily disqualified / rejected.

I.22.D. The tenders submitted without furnishing the relevant information asked for, are summarily rejected.

I.22.E. Conditional tenders are liable for rejection.

I.22.F. **Tenders not submitted on prescribed forms are liable to be rejected.**

I.22.G. If the bidder deliberately gives wrong information in his tender or creates conditions favourable for acceptance of his tender, the accepting officer reserves the right to reject such tender at any stage and forfeit the earnest money. The accepting officer shall be at liberty to foreclose the contract without prejudice to any other remedies that may be available to IIMB under the contract, even after the acceptance of the tender.

I.22.H. Conditional and un-witnessed tenders, tenders containing freak rates and amounts, tenders which are incomplete or otherwise considered defective and tenders not in accordance with the tender conditions laid down by the Accepting Officer are liable to be rejected.

I.23. AWARD OF WORK:

The accepting officer reserves the right to place order as a whole or part of any item only as deemed fit.

The work will be awarded to the bidder who has quoted the lowest amount including GST in the online Price Bid.

The successful bidder will be requested to sign the work order prepared based on the quoted amount, placed on him by the accepting officer.

Renovation of Classrooms at K Cluster at IIMB

I.24. Bidder should provide information regarding any current litigation in case the bidder is involved. The details shall be submitted on the letterhead. If the bidder is not indulged in any litigation, he shall type 'NO LITIGATION' on the letterhead and submit with seal and sign.

I.25. Please fill in the checklist given at the end of this document in order to ensure the submission of all the documents properly.

I.26. In case of any discrepancy/ ambiguity regarding any detailing found in the tender documents, the bidder shall address all his queries / request for clarifications. The queries should be sent only till the submission of the Technical Bid and at the time of the Prebid meeting. Queries / Request received after the opening of the Technical Bid and/or other than the Pre-Bid Meeting will not be entertained.

I.27. If the bidder does not have any query / request for clarification, it will be understood that he has gone through all the relevant clauses, and he is satisfied. No claims or misinterpretation of words will be entertained after award of work.

I.28. The rates quoted shall be for execution of finished items of works as indicated in the Bill of Quantities, which include cost of all materials, consumables, labours, plants, equipment, machineries, transportation of materials to site, loading, unloading, testing of materials and works, samples for testing, all taxes, duties, royalties, Octroi, cost of incidental charges on tools / plants, cost of labour, bidder's overheads, profit etc. to complete the item as per stipulated specifications & description in Bill of Quantities.

I.29. Should a bidder find discrepancies or omissions in the drawings or in the tender documents or should be in doubt as to their meaning he should address the authority inviting tender, for clarification. Every endeavor is made to avoid any errors which can materially affect the basis of the tender, but the successful bidder shall take upon himself the risk of any error which may be subsequently discovered and shall make no subsequent claim on account thereof. The decision of the Engineer-in-charge shall be final and binding on the bidder in this respect.

II. GENERAL CONDITIONS OF CONTRACT

II.1. TIME IS THE ESSENCE OF THE CONTRACT.

II.2. Definitions and Interpretation Clauses:

In this tender document the following words shall have the meanings herein assigned to them:

- a) "**COMPANY**", "**EMPLOYER**", "**IIMB**" and "**ACCEPTING AUTHORITY**" shall mean "**Indian Institute of Management Bangalore**" Bangalore.
- b) "**BIDDER**" shall mean one or more Bidder or Contractors jointly or generally engaged in the works to which these documents pertain to and shall include his / their heirs, executors and administrators.
- c) "**ENGINEER**", "**ENGINEER-IN-CHARGE**", "**CONSULTANTS**", "**ARCHITECTS**" and "**CONSULTING ENGINEERS**" shall mean Engineer Representatives of IIMB and the Consultants appointed by the Company for this specific project, including the Consultants representative.
- d) "**WORKS SITE**" and "**SITE OF WORKS**" shall mean the extent of land which the company places at the disposal of the Bidder from time to time for the purpose of executing the contract works.
- e) "**DRAWINGS**" shall mean the plans, sections, elevations and details of works annexed to this contract document and such further drawings as the Engineer may issue from time to time, during the progress of works and shall include tracings and photographic prints.
- f) "As specified" or "As directed" or "As specified and directed as per specifications" include the entire contents of these documents and also the instructions and/or "Drawings" issued by the Engineer-in-Charge from time to time during the execution of work.
- g) "**BILL of QUANTITIES**" shall also include schedule of prices, i.e., the items of work for which the bidders have to quote the unit rate only.
- h) "**CONTRACT**" or "**TENDER**" shall mean the entire contents of these documents viz.,
 - (i) Tender Notice
 - (ii) Instructions to bidders.
 - (iii) General conditions of Contract.
 - (iv) Special Conditions of Contract.
 - (v) Technical Specifications.
 - (vi) Particulars of specifications
 - (vii) Bill of Quantities- Schedule
 - (viii) Any correspondence that has taken place between the Bidder and IIMB from the time the tender is submitted to the time the acceptance is communicated
 - (ix) Acceptance by the Accepting Officer and Work order by Officer-in-Charge.
 - (x) Tender drawings.

- i) **"SSR" Standard Schedule of Rates** shall mean the CPWD Standard Schedule of Rates with amendments there on as approved.
- j) **"SCHEDULE"** shall mean the probable bill of quantities.
- k) **"SCHEDULED BANK"** means a bank included in the second schedule to the Reserve Bank of India Act 1934, or modification there to.

II.3. Payment: In consideration of the work done under this Agreement, IIMB agrees to pay the Contractor on the basis of work completed at the time of submission of RA bill during that period. The Contractor shall be responsible for payment of all applicable Taxes on the works contract.

II.3.A. The contractor shall promptly raise an invoice to IIMB on the completion of work as per the Tender terms before the 10th day of the month, for the works completed in the previous month.

II.3.B. The contractor should take the entry seal from the Entry Gate Security. Two DC along with Invoice with seal and sign on security. In the absence of the same, such invoices will not be considered.

II.3.C. The bill should be accompanied by the statement and photos of the progress of work, the required documents, measurement sheets of the work done duly signed with seal on every page and countersigned by the Engineer in-charge and the Consultant (if appointed) and other necessary documents.

II.3.D. The bill will be checked, certified and sent to Accounts Section for processing the same for payment.

II.3.E. The payment will be made online to the bank details provided by the contractor, within thirty (30) working days after submission of the undisputed invoice (RA Bill).

II.3.F. To ensure uninterrupted payment of bills, the contractor should update his bank details, the business details regarding the changes if any.

II.3.G. On receipt of the Final payments, the Contractor shall furnish a "No Demand Certificate" to IIMB in the format prescribed by or acceptable to IIMB.

II.4. Contract Termination:

II.4.A. Termination: If the Contractor fails to perform the work set out in this Agreement within the stipulated period of time or carry out the work to the satisfaction of IIMB, IIMB shall terminate the Agreement as a whole or a part thereof at the risk and cost of the Contractor, without prior notice.

II.4.B. Consequence of Termination: In the event of termination of this Agreement, the parties agree to promptly fully deliver all the deliverables applicable conceived, created or developed prior to the date of termination.

In case of termination due to the material breach of the terms of this Agreement by the Contractor, IIMB shall get the balance work executed through a third party and recover

Renovation of Classrooms at K Cluster at IIMB

from the Contractor all the additional costs incurred by and damage caused to IIMB in procuring such services from any other third party.

II.4.C. In case any of the information furnished by the Bidder is found to be false or any adverse points come to light subsequent to the Agreement, IIMB, at its discretion, may choose to terminate the Contract, at any time. The decision of IIMB in this regard shall be final and binding.

II.4.D. Termination of Contract for Death:

Without prejudice to any of the rights or remedies under this contract, if the Bidder dies or attains legal disability, the Accepting Officer shall have the option of terminating the contract without any compensation to the Bidder. IIMB shall have the right to get the work completed by itself, or through any other contractors or agency at the cost and risk of the contractors or his successors in interest.

II.4.E. Termination for Insolvency:

IIMB may at any time terminate the Contract by giving written notice to the Supplier, if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to IIMB.

II.4.F. Termination for Convenience:

IIMB, by written notice sent to the contractor, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for IIMB's convenience, the extent to which performance of the contractor under the Contract is terminated, and the date upon which such termination becomes effective.

II.5. Arbitration:

Except where otherwise provided for in the contract, all question and disputes relating to the meaning of the specifications, designs, drawing and instruction herein before mentioned and as to 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 the 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 completion or abandonment thereof shall be referred to the sole arbitration of the Director if the Director is unable or unwilling to act, to the sole arbitration of some other person appointed by the Director willing to act as such arbitrator. The arbitrator to whom the matter is originally referred being transferred or vacating his Office or being unable to act for any reason such Director / aforesaid at the time of such transfer, vacation of Office or inability to act, shall appoint another person to act as arbitrator in accordance with the terms of the contract. Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor.

II.5.A. Subject to as aforesaid the provision of the Arbitration & Conciliation Act or any statutory modification or re-enactment thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceedings under this Clause.

II.5.B. It is a term of the contract that the party involving in arbitration shall specify the dispute or dispute to be referred to arbitration under the Clause together with the amount or amounts claimed in respect of each dispute.

II.5.C. The arbitrator(s) may from time to time with consent of the parties enlarge the time for making and publishing the award.

II.5.D. The work under the contract shall, if reasonably possible, continue during the arbitration proceedings and no payment due or payable to the Bidder shall be withheld on account of such proceedings.

II.5.E. The arbitrator shall be deemed to have entered on the reference on the date he issues notice to both parties / fixing date of the first hearing.

II.5.F. The arbitrator shall give a separate award in respect of each dispute or difference referred to him.

II.5.G. The venue of arbitrator shall be a place as may be fixed by the arbitrator in his sole discretion.

II.5.H. The award of the arbitrator shall be final, conclusive and binding on both the parties to this contract.

II.6. During the defects liability period / maintenance period, the bidder shall be responsible to make good, free of cost, all defects or damages which occur due to defective workmanship / use of substandard materials. If the bidder fails to make good such defects or damages even after intimation to him within a reasonable time, IIMB shall get the same rectified as deemed fit at the contractors' risk and cost, and the expenditure incurred by IIMB shall be deducted from the Security Deposit before releasing the same.

II.7. Several documents forming the contract are to be taken as mutually explanatory to one another. Detailed drawings and figured dimensions in the drawings shall be followed, not scaling the drawing.

II.8. However, the Engineer-in-charge shall be the sole deciding authority with regard to the intention of the document and his decision in this respect shall be final and binding to the Bidder.

II.9. The bidder shall not increase his quoted rates if the accepting officer negotiates for the reduction of rates. Such negotiations shall not amount to cancellation or withdrawal of the original offer and the rates originally quoted shall be valid for a period of 120 days from the date of opening of the Financial Bid.

II.10. Canvassing in any form in connection with the tenders is strictly prohibited and the tenders submitted by the bidders who resort to canvassing will be liable to be rejected.

II.11. Whenever the Engineer-in-charge of the work feels it necessary and advises the bidder for production of bills for any materials whatsoever procured / purchased by the bidder for use and incorporation in the work, the bidder shall produce such bills in proof of such purchase / procurement from bonafide dealers/manufacturers. Such a demand for production of bill can be made by the Engineer-in-charge even after use and

Renovation of Classrooms at K Cluster at IIMB

incorporation of such materials in the work, after clearance by the Engineer-in-charge for the quality of the materials. In the event of such a demand by the Engineer-in-charge for production of bills, the bidder shall not use and incorporate such materials in the work without prior clearance in writing from the Engineer-in-charge. In case, the bidder fails to produce the bills or uses / incorporates the materials in the work against which bills are advised to be produced, without prior clearance of Engineer-in-charge, no payment against any work under the contract executed by the bidder shall be made.

II.12. The bidder must obtain for himself on his own responsibility and at his own expenses all the information which may be necessary for the purpose of making a tender and for entering into contract and must examine the entire tender document, inspect the site of the work and acquaint himself with all the information about scope and specifications of the work to be done, all his obligations under the contract, local, hydrological and climatic conditions, local and statutory/ Govt. rules and regulations, all other local conditions, means of access to the work, security requirements, restrictions in entry to the Project site, conditions of site of work, nature of the work and all matters pertaining thereto.

II.13. Access to the site will be given during the tender period by appointment on application to the authority issuing the tender. The bidder shall ascertain the location, size and condition of the areas available for his use as working areas and all other information affecting this tender.

II.14. IIMB shall not be responsible and shall not reimburse any expenses which may be incurred, or losses to person or property suffered by any bidder in connection with visits and examination of the site and in the preparation of his tender for submission.

II.15. The bidders must note that information, if any, as regards to the site and local conditions, as contained in these tender documents has been given merely to assist the bidders and is not deemed to be complete.

II.16. The bidders should note and bear in mind that IIMB shall bear no responsibility for the lack of acquaintance of the site and other conditions or any information relating thereto, on its part. The consequences of the lack of any knowledge, as aforesaid, on the part of the bidders shall be at their risk and cost and no charges or claims whatsoever consequent upon the lack of any information, knowledge or understanding shall be entertained or payable by IIMB either during tender stage or during the construction period.

II.17. Only those tenders fully completed in all respects, with the necessary information duly filled-in, signed and sealed on every page, together with all the documents and received by the time and date specified hereunder/hereafter will be considered.

II.18. All information supporting the tender shall be in English and all entries are to be typewritten. There shall be no over-writing or erasure. All corrections should be attested by the bidder with his dated initials as many times as the corrections occur.

II.19. Bidders are required to sign with seal on every page of the bid document including the drawings attached thereto and any common set of deviations / corrigendum issued by IIMB. All corrections in the bid documents must also be signed by the bidder.

II.20. The rates to be quoted in tender shall be given in Indian Rupees.

II.21.The successful bidder to whom the Work Order will be issued by IIMB, shall have to enter into an Agreement with IIMB - within 10 days of receipt of Work Order and bear all the expenses which he may be required to incur for the above.

II.22.Any error in description, quantity or rate in Bill of Quantities or any omission therefrom shall not vitiate the contract nor release the bidder from the execution of the whole or any part of the works comprised therein in respect of rates, specifications or from any of his obligations under the contract.

II.23.If the tendered rate of any item(s) against which no rate /amount /empty /not applicable /blank /not quoted is entered by the bidder, such tender shall be liable to be summarily rejected.

II.24.In the event of a tender being submitted by a partnership firm, the tender must be signed separately and legibly by each partner or member of the firm, or, in their absence a person holding Power of Attorney on behalf of the firm concerned. In the latter case, a copy of the power of attorney duly attested by a Gazetted Officer must accompany the tender and certified true copy (attested only by Gazetted Officer) of the partnership deed must be enclosed along with the tender submitted by the partnership firm.

II.25.On acceptance of the tender, the name of the accredited representative of the bidder who would be responsible for taking instructions from the Engineer-in-Charge shall be communicated by the bidder.

II.26.While quoting their rates, the bidders are advised to take into account all factors of any fluctuations in the market rates, etc. No claims will be entertained on this account after acceptance of the tender or during the currency of the contract. Item rate tender containing percentage below / above will be summarily rejected.

II.27.Before Bidding, the bidders are advised to inspect the site of work and its environments and be well acquainted with the actual working and other prevalent conditions, position of materials and labour, specifications and all other documents which form part of the agreement to be entered into.

II.28.IIMB reserves absolute right to appropriate, deduct, set-off or retain/withhold any amount payable to the bidder under any head of account including earnest money under this contract or any other contract or any other transactions against any sum, which in the opinion of IIMB is due to IIMB under any contract, deal or transaction whatsoever.

II.29.All compensations or other sums of money payable by the bidder under the terms of this contract may be deducted / recovered / adjusted from his security deposit or from any sum which may be due to or become due to bidder by Institute or any accounts whatsoever.

II.30. Final Measurement:

The final measurement must invariably be proceeded by a thorough re-measurement of the whole of the work performed which will be made by the Company's authorized representative at which the Bidder or his accredited agent must be present. Should he not attend to this, the measurements will proceed without him, and he will be precluded from making any protest.

II.31. Office Accommodation for Bidder's Staff:

The Bidder shall at his cost provide, fit up and maintain in an approved portion proper office accommodation for his representative and Contractors staff, which offices shall be open at all reasonable hours to receive instructions, notices or communications and clear away on completion and make good all work disturbed.

II.32. Security And Protection:

(i) The Bidder shall at his cost, provide any necessary temporary enclosures, gates, entrances etc., for the protection of the work and materials and for altering and adopting same as may be required and removing at completion of the works and making good all works disturbed.

(ii) During inclement weather the Bidder shall suspend concreting or plastering for such time as the Engineer-in-Charge may direct and shall protect such work in course of execution from damage by approved measures.

(iii) Should the work be suspended by reason of rain, strike, lockouts or any other cause, the Bidder shall at his cost take all precautions necessary for the protection of the work and shall make good any damage arising from any of these causes.

(iv) The Bidder shall at his expense cover up and protect from any cause, all new work and supply all temporary doors protection to windows, and any other requisite protection for the whole work executed, whether by himself or special tradesmen or sub-Contractors, and any damage caused must be made good by the Bidder at his own expense.

(v) All fences, trees, shrubs, grass, lawn and other surfaces about the buildings or approaches thereto, which are required to be maintained are to be kept free from damage due to operations in connection with the work, at Contractors expense.

II.33. The Bidder shall work in coordination with the departmental staff of IIMB for the execution of the work.

II.34. Bids shall be deemed to be under consideration immediately after they are opened and until the official intimation of award of contract is made by IIMB to the successful Bidder. If necessary, IIMB will obtain clarification on the offers by requesting such information from any or all the Bidders, in writing as may be considered necessary, from time to time. Bidder will not be permitted to change the subject matter of their offer after the Tenders have been opened.

II.35. Under no circumstances will a father and his sons or other close relations who have business dealing with one another be allowed to tender for the same Contract as separate competitors. A breach of this condition will render both the parties disqualified from Bidding for the Contract.

II.36. If the bidder desires to entrust his affairs to any person, a power of attorney duly authenticated by a Magistrate / Notary / Court / Judge in favour of such person, shall be submitted to IIMB, acceptance of which shall be at the discretion of the Accepting Officer.

II.37. The bidder shall make all arrangements for execution of the agreement at his own cost, using IIMB standard format on appropriate stamp paper and execute the same within 15 days from acceptance of Tender. Value of the stamp paper will be informed in the Work Order issued to the successful bidder.

II.38.IIMB will employ other contractors or agencies to execute various other parallel activities relating to the work. The successful Bidder or bidder for this contract shall work in close co-ordination with any other bidder, sub-bidder or agencies engaged by IIMB at site.

II.39.This Tender notice will form part of the Contract Document and must be returned, duly signed along with the Tender Proposal.

II.40.All notices, communications reference and complaints under this contract shall be made by sending email ids mentioned in this document.

II.41.Labour Laws to be compiled by the bidder:

II.41.A. The Bidder shall obtain a valid labour license under the Contract Labour (Regulation and Abolition Act, 1970 and the Contract Labour (Regulation & Abolition) Rules, 1971. Before commencement of the work the bidder shall submit to IIMB a copy of the license. He shall continue to have a license until the completion of work.

II.41.B. The Bidder shall also comply with the provisions of the Child Labour (Prohibition and Regulation) Act, 1986, Payment of Wages Act, 1936, Minimum Wages Act, 1948, Employees Liability Act, 1938, Industrial Dispute Act, 1947, the Payment of Gratuity Act, 1972, the Payment of Bonus Act, 1965 and Maternity Benefits Act, 1961 or the modifications thereof or any other laws relating thereto and the rules made thereunder from time to time.

II.41.C. The Bidder must register under the Employees' Provident Funds and Miscellaneous Act, 1952 and the Employees State Insurance Act/ the Employees' Compensation Act, 1923 and shall provide IIMB the copies of registration papers along with the registration code numbers and the policy papers of insurance and the receipts of the remittance of the amount/premium made to the concerned authorities.

II.41.D. The Bidder is fully responsible for observing the above laws as amended from time to time in regard to his employees and compensation and other benefits/risks in relation to employees to be engaged by him. The Bidder shall maintain all the statutory registers required under Labour Laws. The Bidder shall also produce these records on demand by IIMB. If he fails to do so, his failure will be a breach of the contract and IIMB may at its discretion cancel the contract without prejudice to any other action under the law and contract. The Bidder shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the Acts.

II.41.E. IIMB shall have the right to deduct from the money due to the Bidder, any sum 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 of the benefit of the workers, non-payment or of deduction made from their wages which are not justified by their terms of the contract or non-observance of the Regulations.

III. SPECIAL CONDITIONS OF CONTRACT

III.1. The Bidder shall deploy required No. of Technical Personnel for the smooth execution of the contract.

III.2. Tender Drawings are only indicative. These are subject to change during construction. Bidder shall have no claim whatsoever in this account.

III.3. The Bidder shall obtain the requisite License/permit on electrical, mechanical, water supply, sanitary works etc., as per requirement at site and as directed by the Engineer-In-charge.

III.4. The quality test as stipulated in the tender document or elsewhere deemed necessary by the Engineer-in-charge as per IS shall be carried out at own cost of Bidder.

III.5. Criticalities

- 1. The proposed renovation works at K class rooms are in a building which is in the middle of academic block surrounded by other class room blocks, directors block and library.**
- 2. Access to the building is through the library corridor and vehicular access is restricted to a certain point which will be briefed at site.**
- 3. Major and noise creating works are required to be executed at restricted hours only.**
- 4. All materials are to be transported manually from one point to the work site as instructed at site.**
- 5. There will be restrictions for labor movement and stacking of materials will be at designated places much away from the work site.**
- 6. The debris collected during the work execution needs to be cleared from time to time at restricted hours from the work site as the surroundings of the buildings to be kept clean and neat always as there will be movement of visitors, staff and faculty and students.**
- 7. There would be restrictions of execution of certain types of work like cutting/removal of existing floor due to the exams of students or conduct of classes.**
- 8. Any other restrictions as applicable at site during the work execution.**

III.6. Site Visit:

The Bidder/s shall visit the site to acquaint himself / themselves with the site conditions and study the drawings and specifications in detail prior to Bidding and no claims will be entertained on the ground of ignorance or otherwise of the conditions under which the work shall have to be executed. No cost incurred towards site visit like travelling expenses and accommodation expenses can be claimed. Such expenses are entirely the responsibility of the bidder.

III.7. Site Supervision:

The Bidder shall either himself supervise the execution of the contract or shall appoint competent and experienced Engineers on his own for supervision of the work. Where the Bidder is not a qualified Engineer or even if he is so qualified but in the opinion of the Accepting Authority, cannot give full attention to the works, the Bidder shall at his own expense employ adequate Engineers, as indicated in manpower deployment schedule, to supervise the work and to receive instructions from the Engineer-in-Charge.

III.8. Setting out of the building:

The setting out of the building shall be done by the Bidder himself. All measurements shall comply with the dimensions noted on the drawings. The Bidder shall construct centre line pillars wherever necessary at his own cost and the setting out shall be got checked, approved and certified by the Engineer-in-Charge before execution of work.

III.9. Provisions of Embedding Electric Conduit etc.:

Provisions shall be made during the progress of work for embedding electric conduit etc., wherever necessary as directed. Opening shall be left for service lines, machine foundations as required and as per instructions of the Engineer-in-Charge.

III.10. Damage to Service Lines etc.:

Care shall be taken in execution of work so as not to damage service line etc., coming in the way of construction. If any damage is caused to the line, the cost of replacing or repairs shall be borne by the Bidder.

III.11. Work Schedule:

The work schedule shall be submitted on the enclosed activity schedule along with the equipment & manpower mobilization schedule envisaged for timely completion of work within the stipulated time for completion of work.

III.12. Provision of Machine, Transport etc.:

The bidder shall provide himself with requisite number of welding sets, hoisting equipment, transport vehicles etc., required for the complete satisfactory execution of work. The Bidder shall furnish a list of specific equipment to be mobilized by him, of acceptance of contract as agreed / directed by the Engineer-in-charge.

III.13. Materials supplied by the Bidder:

The Bidder shall furnish in accordance with technical specifications enclosed with this tender.

III.14. Other materials:

All other materials required for the work shall also be supplied by the Bidder. These shall conform to appropriate Indian Standard Specification and procured from approved manufacturer.

III.15. Sufficiency of Priced Bill of Quantities and Tender:

On the acceptance of his tender, the Bidder shall forthwith satisfy himself as to the correctness and sufficiency of his tender for the works as well as prices stated in the bill of quantities and the schedule of prices and within seven days of the acceptance of his tender he shall sign the acceptance, which shall be construed and taken as an acknowledgement on his part of his complete satisfaction and acquiescence in the sufficiency of the prices. The amount of the tender shall be the sum at which the Bidder agrees to execute the whole of the works set forth in the bill of quantities.

III.16. Sub-Letting or Sub-Contracting by the Bidder:

a. The Bidder shall not sub-contract the whole of the works. Except where otherwise provided in the contract, the Bidder shall not subcontract any part of the works without the prior consent of the Engineer in writing. Any such consent shall not relieve the contract from any of his liability or obligation under the contract and he shall be responsible for the acts, defaults and neglects of any sub-bidder, his representative, servants or workmen as fully as if they were the acts, defaults or neglects of the bidder.

b. Provided that the bidder shall not be required to obtain such consent for

- (i) The provision of labour, or
- (ii) The purchase of materials which are in accordance with the specifications / standards specified in the contract, or
- (iii) The subcontracting of any part of the works for which the sub-bidder is named in the contract
- (iv) The purchase of plants and equipment for execution of the works
- (v) The hiring of plants and equipment for execution of the works

Any breach of the above conditions shall entitle IIMB / Engineer to rescind the contract.

Provided always that execution of specific works by petty contractors, or on place work basis, under the personal supervision of the bidder, shall not be deemed to be sub-contracting under this clause.

III.17. Tendered or Agreed Rate:

The Bidder shall agree not to petition for revision of rates tendered by him under any circumstances at any stage of the work, either during execution or when the final claims/Bills are settled.

In the event of any error in the description or in the quantity in Schedule 'B' or any omission there from shall not vitiate the Bidder or release the Bidder from the execution of whole or any part of contract comprised therein according to the drawings and specifications, or from any of his obligations under the contract.

The Bidder shall satisfy himself or shall be deemed to have satisfied himself as to the nature of subsoil, the dimensions, levels, character and nature of all roads, existing drains, sewers, water, gas or other mains, electric cables and other things as regards any connection they may have with the works of the subject of the contract, and he shall also inspect the site works and surroundings, the means of access thereto and agree there from and he shall generally obtain his own information on all matters and things which can in any way influence his Tender. No claims for extra works or otherwise

Renovation of Classrooms at K Cluster at IIMB

will be allowed in consequence of any misunderstanding, error, incorrect information on these points, or if any other inaccuracies in reference thereto, which may appear on the drawings or in the specification nor shall the contract be nullified in consequence of any such misunderstanding, error, incorrect information or inaccuracies.

III.18. Engineer's Order to Commence Works and as to Non-Delivery of Site:

The Bidder having signed the contract, the Accepting authority will forthwith give him notice to commence the works and the Bidder shall upon receipt of such notice commence the works and carry them on at such point or points and in such portions as the Engineer may direct.

The company shall, with Engineer's written order to commence the works, give to the Bidder the use of so much of the site of works as may, in the opinion of the Accepting authority, be required in order to enable the Bidder to commence and continue to construction of the works, and shall from time to time consider proper in that behalf, but the non-delivery in manner aforesaid of the use of such site, or any portion thereof, shall not vitiate or effect the contract, nor any provision contained in the specification, not entitle the Contractors to any increased allowance in respect of the money.

III.19. Setting out Works Notice:

The Bidder shall set out the whole of the works & be responsible for the correctness of the position, levels & dimensions of several works, according to the drawings & written instructions of the Engineer. If at any time during the progress of the works any error shall appear or arise in the position, levels or dimensions of the several works, the Bidder, on being required to do by the Engineer, shall at his own expense remove & amend the work to the satisfaction of the Engineer, notwithstanding that he may have been assisted by the Engineer in setting out the same. The Bidder shall observe, perform & comply with the requirements of all statutes & bye-law & shall also serve notices on the authorities having control of the road surfaces before the same are broken up & he shall likewise serve notice on the owners of sewers, drains, water, gas or other mains, electric cables & other things which may be in way affected by the execution of the contract works.

III.20. Materials Tools Etc., Brought On To Works Become The Property Of The Company During Continuation Of Contract:

All materials, tools, implements and other things brought by the Bidder upon the Company's works shall thereupon become, and shall continue to be the absolute property of the company and be considered in its possession, the Bidder having only the right of using the same for the purpose of the contract. After the works have been completed and all obligations under the contract duly fulfilled, the Company shall return to the Bidder the tools, implements and surplus or waste materials then remaining upon the company's works to be removed by him forthwith and cleared away. Nevertheless, the company shall not at any time be liable for the loss of any of the said materials, tools, implements or other things, but the whole of this liability shall fall upon the Bidder, the same as if they had remained in his possession.

III.21. Power to vary Works:

The Company shall have full power and authority from time to time, and at all times to order works additional to the contract, and to make and issue such further drawings and to give such further instructions and directions as may appear necessary or proper

Renovation of Classrooms at K Cluster at IIMB

for the guidance of the Bidder and the good and sufficient execution of the contract, the bidder will have to "obey and be bound by the said further drawings, instructions and directions according to the true intent and meaning thereof, and as fully and effectually as though they had accompanied, or has been mentioned or referred to in the original drawings and specification". The Company shall also have power to vary or alter the levels or positions of any of the works, the subject of this contract, or may order any of the works contemplated thereby to be omitted with or without the substitution of any other works in lieu thereof, or may order any work or any portion of the work executed or partly executed, to be removed, changed or altered and, if needed other works shall be substituted in lieu thereof, and the difference of expense occasioned by any such increase, diminution or alteration so ordered and directed shall be added to, or deducted from the amount of the contract, agreeably at the prices for similar work set forth in the bill of quantities or failing which as a derivative to similar works in the schedule of prices attached thereto, and in the absence of such similar work being scheduled, then such work shall be carried out at the rates entered in SSR applicable at IIMB and plus percentage which the total tendered amount bears to the estimated cost of the entire work put to tender.

The Company will in no case become liable to the payment of any charge in respect any such conditions, alterations or deviations, unless the instructions for the performance of the same shall have been given in writing and signed by the Engineer nor unless such instructions distinctly state that the matter thereof is to be the subject of an extra or varied charges, in the work order hereinafter set forth: or unless the claim thereafter shall be made in writing, signed by the Bidder and be made within the week in which the work is executed and the materials used, and before the same shall have been placed out of view, or beyond check or measurement; nor unless the value of any altered or varied works or of any further works, shall wherever practicable, have been determined and settled before such altered or varied or further works shall have been commenced. Such value in case of dispute, shall be ascertained by the Engineer, who shall determine in all cases whether such previous determinations and settlements were practicable or not, and in all cases when he shall consider the same to have been practicable, the Bidder shall not be entitled to make any claim in respect of such altered, or varied or further works. It shall in the opinion of the Engineer, in any special instance become necessary to execute any additional or substituted work, either wholly or in part "By the day" the claim therefore shall not to be recognized unless the Bidder shall have delivered to the Chief Manager (Infrastructure) within one week day, and so on from day to day a true and exact list of the names, occupations, time and wages of the several workmen engaged during the previous day, on any and every such work in respect of whom a change "By the day" is intended to be made in the next succeeding weekly claim work in respect of whom a change "By the day" shall be made unless, in the opinion of the Engineer, it is impracticable or unreasonable to determine the value of the amount of work in manner otherwise provided for in these General Conditions.

III.22. Works to be executed in Approved Manner:

The works, the subject of the contract, specified and provided for, or that may be necessary to be done to form and complete any part thereof, shall be executed and completed in the best and most substantial manner, with materials of the best and most approved quality of their respective kinds, agreeable to the particulars contained in or implied by the specification, or as referred to and represented by the drawings and memorandum thereon/or as referred to by any of the said further drawings, instructions and directions, and shall be to the full satisfaction of the Engineer. The Engineer shall have full liberty at all reasonable times to inspect and examine the works, materials and workmanship which to him, may appear defective, unfit or improper for the several

Renovation of Classrooms at K Cluster at IIMB

purposes to which they are applied, or intended to be applied, or are not in accordance with the specifications of the said drawings, memoranda instructions or directions respectively and every such time reject any or all of such works, materials and workmanship.

III.23. Works To Be Carried With An Expedition Failing Which The Company May Employ Contractors Without Vitiating The Contract:

The Bidder shall commence to carry on the works with due diligence, and as much expedition as the Engineer in charge may reasonably expect, having regard to the specified time of completion of the whole of the works. In case the Bidder fail to do so or neglect to provide proper and sufficient materials or to employ a sufficient number of workmen to execute the works then the Company shall have full power, without vitiating contract, to take the works wholly or in part of the hand of the Bidder, to engage or employ any other person or workmen, and to procure all requisite materials and implements for the due execution and completion of the said works and the costs and charges incurred by the Company in so doing shall be ascertained by the Accepting Officer and be competent for the company to deduct the amount of such costs and charges along with overheads out of any sum or sums due or to become due from the Company to the bidder under this or any other contract.

III.24. Emergency Powers:

In the event of any accident or failure occurring in or on the works which in the opinion of the Engineer, requires immediate attention either during the construction or during the period of maintenance, the company may, by their own or other workmen make necessary repairs at the expense of the Contractors.

III.25. Openings To Be Made For Examination Of Works:

Should the Engineer require it for his more perfect satisfaction, the Bidder, shall at any period during the continuance of the contract pull down any part of the works, and make such openings, and to such extent, through any part of the works as the Engineer in charge may direct, and the Bidder shall make such works good again to his satisfaction. Should the works be found faulty in any respect the whole of the expenses thereby incurred shall be defrayed by the Bidder, but of otherwise, by the company.

III.26. Precaution Against Injury To Property Adjacent To Works In Progress:

The Bidder shall take special care, by the erection of temporary fences, and by every other means which circumstances may render necessary to prevent all injury and damage to or trespass upon the lands, roads, fences or property adjacent to the site of works, and he shall confine the passage of his workmen to existing public roads and footpaths. He shall likewise pay and satisfy all claims whatsoever and from whomsoever, for temporary occupation, way leaves, damages, trespass or otherwise, in reference to the said lands, roads, fences and property adjacent, and bear the company harmless from any and all such claims. If any greater extent of lands than the site or works be required by the Bidder for his operations, he shall obtain and occupy the same at his own cost and charge.

III.27. Precautions Against Accidents Or Injury:

The Bidder shall, at his own expense, share, protect, support, alter, restore, make good and maintain, as may be necessary, all buildings, water and gas pipes, sewage, drains, electrical cables and other things, which may be disturbed, exposed or injured during the execution of the works, or in consequences of the execution of the works and shall also provide for the continuous use of all buildings, pipes, sewers, drains, electric cables and other things, the use of which may be liable to interruption during the progress of the works. The Bidder shall at his own expense restore all such buildings, water and gas pipes, sewage, drains, electric cables and other things to the satisfaction of the owners thereof, and he shall likewise, at his own expense, construct and maintain such works as may be necessary for the due permanent support of all such buildings, pipes, sewage, drains, electric cables and any extra timbering which may be temporarily required, and all labour in fixing and removing the same and shall at his own expenses provide other things not within the construction of the works, and keep indemnified, the company and its officers from and against all actions, suits, claims, penalties, liabilities, costs, expenses and demands whatsoever, by reasons of on account of damages to such buildings, pipes, sewage, drains, electric cables and other things whether caused by the execution of the contract works or the insufficiency of the aforesaid permanent support. The company may deduct the expenses thereby incurred or to which the company or its officers may thereby be put or be liable, or which may be incidental thereto, from the amounts of any sum or sums due or to become due to the Bidder or may recover the same by action at law or otherwise from the Bidder, and the company may compromise any such action, suits, or other proceedings, or such items as it shall see fit and the Bidder shall thereupon forthwith pay the company the sum or sums paid by the company upon the occasion thereof and shall in every case pay such sum or sums and shall fully indemnify the company according to the present stipulation.

III.28. Extension Of Time:

If the Bidder shall desire an extension of time for the completion of the work on the ground of his having being unavoidably hindered in its execution in consequence of altered, additional or substituted work, or any other ground, he shall apply in writing to the Engineer in charge within seven days of the hindrance on account of which he desires such extension as aforesaid and the Accepting Authority shall, if in his opinion (which shall be final) reasonable grounds be shown therefore, authorize such extension of time, if any, as may, in his opinion be necessary or proper.

III.29. Royalties:

The Bidder shall be liable to pay all royalties chargeable on Government Local Bodies or company materials required for the work.

III.30. Rejected Material:

All rejected material will at once be removed from the site by the Bidder to such distance as may be desired.

III.31. Scope Of Completion:

Completion includes completion of all works in accordance with plans and specifications, removal of all yard mess accumulated during construction, leveling and cleaning up the site and generally cleaning the whole building or works.

On intimation from the Bidder about the completion, the works will be inspected by the Engineer-in-charge and a completion certificate will be issued.

III.32. Temporary Road:

The Bidder shall, at his expense, provide such temporary roads on the site as may be necessary for the proper performance of the contract, and for his own convenience but not otherwise. Upon completion such roads shall be broken up & leveled where so required by the drawings at Contractors expense unless the ENGINEER IN-CHARGE shall otherwise direct.

III.33. Sign Board And Hoardings:

The Bidder shall not affix to place any placards or advertisement of any description or permit the same to be affixed or place in or upon any hoarding, gantry, building/structure other than that approved by the ENGINEER IN-CHARGE.

III.34. Scientific And Measuring Instruments:

Total station, Theodolite, leveling instruments, prismatic compass / chain, steel and metallic tapes and all other surveying and material testing instruments found necessary on the works shall be provided by the Bidder at his expense for the due performance of this contract as instructed by the Engineer-in-Charge.

III.35. Measurements Of All Concealed Items To Be Recorded Prior To Covering Up:

Measurements of all items of work including extra items if any, such as, work in foundations including excavations, plinth filling, masonry concrete etc., steel in all RCC works, pipe to be encased etc., shall be got recorded from the authorized Engineer-in-Charge by the Bidder before they are covered up. Immediately the work is ready for measurements, Bidder will give specific notice to Engineer-in-Charge on site for recording the measurements.

If the Engineer fails to record the measurements the Bidder will refer the matter to the Chief Manager (Infrastructure) for instructions, but in no case shall he cover up the work without the permissions.

Before commencing the work, it shall be obligatory for the bidder to obtain, at his own cost, insurance cover under the following requirements.

- i) Liability for death or injury to any person or loss to any property (other than the work) arisen out the performance of the Contract.
- ii) Any other insurance cover as may be required by the law of the land like workmen insurance etc.

III.36. Damage To Persons and Property

The Bidder shall be responsible for all injury to persons, animals or things and for all structural and decorative item, damages to property which may arise from the operation or neglect of himself or of any nominated sub-bidder or any employees, of either, whether sub injury or damage arises from carelessness, accident or any other cause whatsoever in any way connected with the carrying out of his contract and hold it

harmless in respect of all and any expenses arising from any such injury or damage to persons or property as aforesaid and also in respect of injury or damage under any Act of any legislature or otherwise and also in respect of any award of compensation or damage consequent upon such claim.

III.37. Damage & Loss to Private Property & Injury To Workmen

The Bidder shall at his own expense reinstate and make good to the satisfaction of the Engineer-in-Charge, in respect of any such injury (including claim resulting in death), loss or damage to any person whatsoever or property including all claims which may arise under the Workmen's Compensation Act or otherwise.

III.38. Attention:

- (i) The Bidder shall visit the site prior to tender, as no claims will be allowed on the ground of ignorance of the conditions under which work shall be executed.
- (ii) Time will be the essence of the contract and the Bidder is to complete the whole of work in the time stated in the tender, subject to the schedule of conditions.
- (iii) The Bidder is to provide at all times during the progress of work and the maintenance period proper means of access, with ladders, gangways etc., and the necessary attendants to move and adopt as directed for inspection of their representatives. No separate rate will be allowed.
- (iv) The Bidder is to keep all persons under his control and within the boundaries of the site, and he will be held responsible for the care of the works generally until their completion including all works executed and materials deposited on the sites by himself or suppliers, together with all risks arising from weather, carelessness of apprentices, damage or loss by thefts or by any other cause and is to allow for all necessary watching and protective lighting.

III.39. Details of Work of similar nature of the advertised tender value in the qualifying period i.e. current year and five previous financial years, are to be provided. Interested Bidders should provide description of work, organization for which the said work has been executed, approximate value of contract at the time of award, payment received in the qualifying period, date of award and date of scheduled completion of work, date of actual start, actual completion and final value of contract should also be given. Supporting documents and certificates from the organizations for which the Bidders have worked should be enclosed. The authorized signatory of the organization should sign the certificates submitted by the Bidder. Certificates from only those organizations, institutions or bodies will be considered which execute work in public view and maintain verifiable records. As such, the organization or bodies, from which certificates will be considered, are as follows:

- a. Government Departments, PSUs and other Government Institutions
- b. Public Limited Company
- c. Private Limited Company
- d. Government Recognized Institutions
- e. Cooperative Societies registered with "Registrar of Cooperative Societies"
- f. Sole Proprietary Firms/Partnership Firms registered with "Registrar of Firms"

All certificates should be on the official Letterhead of the Organization, bearing contact address, telephone number, email address, etc. Further, the certificate from sources listed at (b) to (f) should invariably be accompanied with the proof of the organization's registration with, or recognition by Government, without which such certificate shall not be considered as adequate proof for the purpose of this Tender.

III.40. The Bidder shall keep the offer open for a period of 120 (One Hundred and twenty) days from the date of opening of the Financial Bid, during this period, the Bidder shall not withdraw his offer. This period is subject to being extended further, if required, by mutual agreement of IIMB and the Bidder, in writing, from time to time. It is understood that the Bidder is being permitted to Tender in consideration of stipulation on his part that after submitting the Tender, he will not resile from his offer or modify the terms and conditions thereof in a manner that is not acceptable to IIMB. If the Bidder fails to observe or comply with the forgoing stipulation or fail to undertake the Contract after the acceptance of his Tender, the entire amount deposited as EMD for the due performance of the stipulation and keep the offer open for the specified period, shall be forfeited by IIMB. If the tender is accepted, the amount of all EMD will be held by IIMB as initial Security Deposit (SD) for due and faithful fulfillment of the Contract. The EMD of unsuccessful Bidders shall be returned to them within reasonable time, but IIMB shall not be responsible for any loss or depreciation to the EMD for the due performance of the stipulation and to keep the offer open for the period stipulated in the Tender documents while in its possession, nor will it be liable to pay any interest thereon.

III.41. Local Conditions

i. Each Bidder shall acquaint himself with the local conditions and factors which would have any effect on the performance of the contract and the cost of item of works. IIMB shall not entertain any request for clarification from the Bidder regarding such local conditions. No request for change of price or time schedule for completion of work shall be entertained after the acceptance of offer by IIMB. The Bidder can visit the place of proposed work to understand the site conditions and correct appreciation of volume of work to be done.

ii. The Bidder shall work in coordination with the departmental staff of IIMB for the execution of the work.

iii. In case any of the information furnished by the Bidder is found to be false or any adverse points come to light subsequent to the Agreement, IIMB, at its discretion, may choose to terminate the Contract, at any time. The decision of IIMB in this regard shall be final and binding.

III.42. Interested Bidders shall submit their offer as per the conditions set forth in the Tender document, which includes the stipulations contained in the GCC, SCC, Specifications, etc. or the latest correction slips, as amended from time to time, if applicable, which shall form part of the Contract.

III.43. Acceptance of Tender

II.43.A. IIMB may accept the Tender wholly or in part or reject any tender without assigning any reason whatsoever and may not accept the lowest or any tender. The Bidder shall not demand any explanation for the rejection of his tender. Acceptance of tender will be communicated by a formal acceptance letter (by registered post) directly to the Bidder.

II.43.B. If the Bidder deliberately gives wrong information in his Tender and thereby creates circumstances for the acceptance of his Tender, IIMB reserves the right to reject such Tenders at any stage.

II.43.C. The Successful Bidder shall execute a Contract with IIMB, for carrying out the Work. The address of the Contractor as given in the agreement will be deemed their business address and all correspondence sent to that address by IIMB shall be deemed delivered to the Contractors in the ordinary course by post.

II.43.D. IIMB does not undertake to assign reason for declining any particular tender. The accepting authority also reserves the right to accept in full, or a part thereof or reject the tender or to divide the tender among more than one Bidders if deemed necessary without assigning any reason.

III.44. Adequate Safety Precautions shall be taken by the Contractor to ensure the Safety of the workmen engaged by him.

III.45. PROGRESSIVE EXECUTION:

The Bidder/s shall agree to execute the work progressively in co-ordination with the concerned Officers of IIMB and as directed by the Engineer-in-Charge.

III.46. DEVIATIONS AND AMENDMENTS:

Bidder shall execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and as detailed in the Schedule and also carry out such deviation as may be ordered.

III.47. PRICING OF DEVIATION:

The following order of precedence for pricing deviations are binding on the Contractors.

- a) Deviations will be priced at Schedule of rates where the item is already included in Schedule.
- b) In respect of items not included in Schedule but where similar items are found in Schedule of rates directly from Schedule items where such a direct derivation is possible.
- c) Where the rate cannot directly be derived from the Schedule the same will be worked out with reference to Schedule and standard schedule of rates (with the percentage of application over and above the same as approved.)
- d) Where it is not possible to derive the rate from the standard schedule of rates, the same will be based on the actual cost to the Bidder plus a profit of 10%. In this case the Bidder has to produce satisfactory evidence / vouchers as proof of expenditure.

III.48. TIME AND EXTENSION FOR DELAY:

The time allowed to execution of the Works as specified in the Schedule "A" 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 "A" or from the date of handing over of the site whichever is later. If the Bidder commits default in commencing the execution of the work as aforesaid. Government shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the earnest money & performance guarantee absolutely.

As soon as possible after the Contract is concluded, the Bidder shall submit a Time and Progress Chart for each milestone and get it approved by the Department. The Chart shall be prepared in direct relation to the time stated in the Contract document for completion of items of the works. It shall indicate the forecast of the dates of commencement and completion of between the Engineer-in-Charge and the Bidder within the limitations of time imposed various trades of section of the work and may be amended as necessary by agreement between the Engineer-in-Charge and the Bidder with the limitation of the imposed in the Contract documents, and further to ensure good progress during the execution of the work, the bidder shall in all cases in which the –in which the time allowed to any work, exceeds one month(save for special jobs for which a separate program has been agreed upon)complete the work as per mile stone given in Schedule "A".

III.49. If the works be delayed:

- i. Force majeure, or
- ii. Abnormal bad weather, or
- iii. Serious loss or damage by the, or
- iv. Civil commotion, local commotion of workmen, strike or lookout, affecting any of the trades employed or 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 Government to supply/or
- vii. Non-availability or break down of tools and Plant to be supplied or supplied by Government or
- viii. Any other cause which, in the absolute discretion of the Engineer-in-Charge is beyond the Bidder's control.

Then upon the happening of any such event causing delay, the Bidder shall immediately give notice thereof in writing to the Engineer-in Charge but shall nevertheless use constantly his best and 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.

Request to rescheduling of milestones and extension of time, to be eligible to consideration, shall be made by the Bidder in writing within fourteen days of the happening of the event causing delay on the prescribed form. The Bidder may also, if practicable, indicate in such a request the period of which extension is desired.

In any such case the Engineer-in-Charge may give a fair and reasonable extension of time and reschedule the milestones to completion of work. Such extension shall be communicated to the Bidder by the Engineer-in-Charge in writing, within 3 months of the date of receipt of such request. No application by the bidder to extension of time shall be a bar for giving fair and reasonable extension by the Engineer-in-Charge and this shall be binding on the bidder.

In such case the Accepting Officer may grant fair and reasonable extension in the completion dates of individual items or work for which the separate period of completion is mentioned in the contract documents or work order as applicable. Upon the happening of any such event causing delay, the Bidder shall immediately give notice thereof in writing to Engineer-in-Charge but shall nevertheless use constantly his best endeavor to prevent or make good the delay and shall do all that may reasonably be required to

Renovation of Classrooms at K Cluster at IIMB

the satisfaction of the Engineer-in-Charge to proceed with the works extension of time as granted above shall be communicated to the Bidder by the Engineer-in-Charge in writing and shall be final and binding.

No claims in respect of compensation or otherwise, however, arising as a result of extension granted shall be admitted.

III.50. FORCE MAJEURE:

If, at any time during the currency of the contract, the performance of any obligation (in whole or in part) by IIMB or the Bidder shall be prevented or delayed by reason of any war, hostilities, invasion, acts of public or foreign enemies, rebellion, revolution, insurrection, civil commotion, sabotage, large scale arson, floods, earth quake or any other act of God, large scale epidemics, nuclear accidents, any other catastrophic unforeseeable circumstances, quarantine restrictions, any statutory, rules, regulations, order or requisitions issued by a Government department or competent authority (hereinafter referred to as "event") then, provided notice of the happening of such an event is given by either party to the other within 21 days of the occurrence thereof.

- a) Neither party by reason of such event be entitled to terminate the contract or have claim for damages against the other in respect of such non-performance or delay in performance, if not covered under insurance.
- b) The obligations under the contract shall be resumed as soon as practicable after the event has come to an end or ceased to exit.
- c) In case of doubt or dispute, whether a particular occurrence should be considered an "event" as defined under this, clause the decision of the Engineer shall be final and binding.
- d) If the bidder is foreclosed under this clause, the Bidder shall be paid fully for the work done under the contract, but not for any defective work or work done which has been destroyed or damaged before its measurement. The Engineer shall have the option to take over any plant and material lying at site, at rates provided for in the contract, failing that, as per rates which are determined to be fair and reasonable by the Engineer.

If no notice is issued by either party regarding the event within 21 days of occurrence, the said event shall be deemed not to have occurred and the contract will continue to have effect as such.

III.51. PENALTY FOR DELAY IN EXECUTION:

In case of failure on the part of Bidder to complete the work and clear the site on or before the time stipulated in the contract or the extended date / period of completion, the Bidder shall, without prejudice to any other right or remedy of the Company on account of such breach, pay penalty as compensation @ **1.0 %** per week on unfinished work/balance work upto a maximum of **10 %** of the value of work order.

The amount of compensation may be adjusted or set off against any sum payable to the Bidder under this or any other contract with IIMB.

If the bidder makes good the shortfall on works within the stipulated time or extended time of completion, penalty may be refunded on receiving written application from the bidder.

III.52. CANCELLATION OF CONTRACT FOR BIDDER DEFAULT:

If the Bidder:

- a) Makes default in commencing the work within a reasonable time from date of handing over of the site and continues in the state after a reasonable notice from ENGINEER IN-CHARGE.
- b) In the opinion of the Engineer-in-Charge at any time, whether before or after the date or extended date for completion, makes default in proceeding with the work, with due diligence and continues in that state after a reasonable notice from Engineer-in-Charge.
- c) Fails to comply with any of the terms and conditions of the contract before or after reasonable notice in writing, orders properly issued thereunder, or
- d) Fails to complete the work, work order and items of work with individual dates for completion and clear the site on or before the date of completion.

The Accepting Officer may, without prejudice to any other right or remedy which shall have accrued or shall accrue thereafter to IIMB cancel the contract as a whole or in part thereof or only such work order or items of work in default from the contract. Whenever the Accepting Officer exercises his authority to cancel the contract as a whole or in part under this condition, he may get completed the work at the Contractors risk and cost, provided always that in the event of the cost, of completion (as certified by Engineer-in-Charge which is final and conclusive) being less than the contract cost, the advantage shall accrue to the IIMB. If the cost of completion exceeds the money due to the Bidder under this contract, the Bidder shall either pay the excess amount ordered by Engineer-in-Charge or the same shall be recovered from the Bidder by other means.

In case IIMB completes the work or any part thereof under provisions of this condition the cost of such completion to be taken into account for determining the excess cost to be charged to the Bidder under this condition, it shall consist of the cost of materials purchased / and / or labour provided by IIMB which on addition of such percentage to cover superintendence and establishment charges as may be decided by the Engineer-in-Charge whose decision shall be final and conclusive.

III.53. FORECLOSURE OF CONTRACT FOR ADMINISTRATIVE REASONS:

IIMB reserves the right to terminate the contract at any time after acceptance of the tender if IIMB decide to abandon or reduce the scope of work for any reason whatsoever and hence not required 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 Contractors. The compensation, if any payable for such foreclosure of work will be discussed mutually between IIMB and Bidder and settled after taking into consideration the loss suffered by the Bidder on account of the foreclosure of the contract. The Bidder shall have no claim to any payment of compensation or otherwise whatsoever on account of any profit or advantages which he might have derived consequent on foreclosure of the whole or part of the works. IIMB shall have the option to take over the Contractors materials or

Renovation of Classrooms at K Cluster at IIMB

any part thereof, either brought to the site or to which the Bidder is legally bound to accept the delivery from the suppliers.

The amount of compensation payable to the Bidder due to foreclosure will be decided by the competent authority of IIMB.

III.54. ENCLOSURES:

General Conditions, Special Conditions of contract, Tender Notice, Instructions to Bidders together with Technical Specifications, BOQ will form part of the contract. Should there be any discrepancy between the provision in the Bill of Quantities & drawings the former shall be deemed to take precedence there over.

III.55. MODIFICATION OF SPECIFICATIONS:

No modifications or changes of specification in the Bill of Quantities will normally be accepted & such specification and rates are liable to be rejected.

III.56. RUNNING ACCOUNT REMITTANCE: (R A R)

Payment in respect of work done will be based on certificate from Engineer-in-charge as to the value of work done. This certificate should be supported by a bill from the bidder indicating the quantities of work done and rates adopted for evaluation of the work or percentage of work.

Memorandum of Payment:

- a. Total value of work done -----
- b. Deduct total value of the work done upto previous bills ---
- c. Deduct for Security Deposit ----- 5%
- d. Deduct for Income Tax ----- 2%
- e. Deduct for Labour welfare cess ----- 1%
- f. Deduct for Material advance paid if any. -----
- g. Deduct for Mobilisation advance with interest, if any. -----
- h. Deduction of Electricity & water charges supplied, if any---
- i. Any other dues recoverable by IIMB from the Bidder under the present or any other contract. -----

During the progress of work for each contract the bidder shall prefer claims giving details of work done, rate and value to the Engineer-in-charge. These claims are called RAR bills and RAR payments will be normally made once in a calendar month. These bills will be checked by the Engineer-in-Charge with reference to either the percentage of the value of work done or on the basis of actual measurements wherever available and recommend payment of the bill with due adjustment for recoveries and RAR payment (including material advance) effected.

III.57. PRE-FINAL RAR'S:

A pre-final RAR is raised only when the work is completed, and the complete measurement is recorded in the MB's by the Engineer-in-charge duly accepted by the bidder. Pre-final RAR will be sent to the Accounts Department by the Engineer-in-charge only after the check measurements and endorsement in the MB's.

III.58. FINAL BILL:

On completion of the work, the complete measurements are recorded in measurement books and accepted by the bidder. There upon a final bill shall be submitted by the bidder within ONE MONTH from the date of completion of the work, so as to ensure payment being made before the expiry of six months from the date of completion of work. A 'NO DEMAND CERTIFICATE' against the company under the contract.

III.59. MEASUREMENTS OF WORK DONE:

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

All measurement of all terms having financial value shall be entered in the 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 or his authorize representative and by the bidder or his authorized representative from time to time during the progress of the work and such measurements shall be signed and dated by the Engineer-in-Charge and the bidder or their representative in token of their acceptance. If the bidder 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 bidder or his authorized representative is not available and the work of recording measurements is suspended by the Engineer-in-Charge on his representative, the Engineer-in-Charge and the Department shall not entertain any claim from bidder for any loss or damages on his account. If the bidder or his authorize representative does not remain present at the time of such measurements after the bidder or his authorized representative has been given a notice in 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 Bidder.

The bidder shall, without extra charge, provide all assistance with every appliance, labour and other things necessary to 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 specifications notwithstanding any provision in the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available, than mutually agreed method shall be followed:

The bidder 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 and placed beyond the reach of measurement without such notice having been given to the Engineer-in-Charge's consent being obtained in writing the same shall be uncovered at the Bidder's

Renovation of Classrooms at K Cluster at IIMB

expense, or in default thereof no payment or allowance shall be made to 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 his contract that recording of measurement of any term 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 bidder from liabilities from any over measurement defects noticed till completion of the defects liability period.

III.60. COMPUTERIZED MEASUREMENT BOOK

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

Measurements of all items having financial value shall be entered by the bidder and compiled in the shape of the Computerized Measurement entered in the Book having pages of A-4 size as per the format of the department so that a complete record of all the items of works performed under the contract is obtained.

All such measurements and levels recorded by the bidder or his authorized representative from time to time, during the progress of the work, shall be got checked by the bidder from the Engineer-in-Charge or his authorized representative as per interval or program 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 bidder for incorporating the corrections and for resubmission to the Engineer-in-Charge for the dated signatures by the Engineer-in-Charge and the bidder or their representatives in token of their acceptance.

Whenever bill is due for payment, the bidder would initially submit draft computerized measurement sheets and these measurements would be got checked in his draft computerized measurements, and submit to the department a computerized measurement book, duly bound, and with its pages numbered. The Engineer-in-Charge and/or his authorized representative would thereafter check this MB and record the necessary certificates for their checks.

The final, fair, computerized measurement book given by the bidder, duly bound, with its pages numbered, should be 100% correct, and no cutting or over-writing in the measurements would thereafter be allowed. If at all any error is notice, the bidder shall have to submit a fresh computerized MB with its pages duly numbered and bound, after getting the earlier MB cancelled by the department. The bidder shall submit two spare copies of such computerized MB's for the purpose of reference and records by the various officers of the department.

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

The bidder 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 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 bidder 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 the measurement of any work in order that the same may be checked and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of checking 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 checking 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 Bidder'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 by bidder 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 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 bidder from liabilities from any over measurement or defects noticed till completion of the defects liability period.

III.61. DEFECTS LIABILITY (MAINTENANCE) PERIOD:

The normal period of maintenance for all work will be **Twelve Months** from actual completion of work and for special items of work such as Tar felting, Anti-termite treatment etc., as mentioned in the body of the specification. During this period the Bidder will be responsible for rectifying all defects noticed and attributable to defective workmanship in respect of the work executed by him. As soon as any defects come to the notice, Engineer-in-Charge shall request the Bidder in writing to rectify the defects noticed.

III.62. DEFECT LIABILITY DEPOSIT / SECURITY DEPOSIT:

The Security Deposit will be refunded only after the Completion of the maintenance period after inspection by the Engineer-in-Charge.

The above deposit will be held by the company as security for the satisfactory performance of the contract. All compensations or other sums or money payable by the bidder to the company under the terms and conditions of this contract may be deducted from this security deposit or from any other sums that may be due, or may become due to the bidder by the company on any account what so ever, and in the event of the security deposit being reduced by reasons of any such deductions the bidder shall within ten days thereafter make good these deductions.

No deposit will be recovered for the works of routine maintenance except for special works where maintenance period is essential and specifically stipulated in the contract etc., like tar felting, water proofing etc.

III.63. RECOVERY FOR ANY OVER PAYMENT MADE:

Should there be any over payments made inadvertently to the Bidder on this account or in any other contract, the Company shall recover such amount from the Bidder either by deducting the amount from any sums that may due or may become due to the Bidder by the Company on any account whatsoever from this or any other contract or from the security-cum-earnest money deposit made by the Bidder.

III.64. DISMANTLED MATERIALS:

Materials obtained from demolition / dismantling work, shall remain with the Bidder at his own risk till such time the Bidder removes them to the IIMB. Should the Bidder fail to remove such dismantled materials to IIMB within 10 days from the date of completion, the Engineer-in-Charge will be entitled to remove them at the risk and cost in all respects of the Bidder.

III.65. INSURANCE AND INDEMNITIES:

Insurance of Works:

Bidder shall provide for adequate cover to his employees as per provisions of Workmen's Compensation Act. The Bidder shall ensure that his insurance includes for all liabilities, which should cover material and building damage, workmen's compensation, third party liabilities etc. All the above-mentioned insurance can be covered by CAR Policy for the Contract Value. The Bidder should produce evidence of insurance coverage for all above before submitting invoices for payment. Such insurance shall be affected with an insurer and in the terms approved by IIMB.

If the Bidder has a blanket insurance policy for all his works and the policy covers all the items to be insured under this Contract, the Bidder may assign such policy/ policies in favour of Indian Institute of Management Bangalore, in lieu of taking out fresh policies in the name of Indian Institute of Management Bangalore.

Insurance against accident or injury to Workers: IIMB shall not be liable for or in respect of any damage or compensation payable at law in respect or in consequence of any accident or injury to any workmen or other person or any Sub-Bidder. The Bidder shall indemnify and keep indemnified IIMB against all such damages and compensation, and against all liability, claims, proceeding,

costs, charges and expenses whatsoever in respect thereof or in relation thereto

III.66. ARBITRATION:

Except where otherwise provided for in the contract, all question and disputes relating to the meaning of the specifications, designs, drawing and instruction herein before mentioned and as to 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 the 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 completion or abandonment thereof shall be referred to the sole arbitration of the Director if the Director is unable or unwilling to act, to the sole arbitration of some other person appointed by the Director willing to act as such arbitrator. The arbitrator to whom the matter is originally referred being transferred or vacating his Office or being unable to act for any reason such Director / aforesaid at the time of such transfer, vacation of Office or inability to act, shall appoint another person to act as arbitrator in accordance with the terms of the contract. Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor.

a. Subject to as aforesaid the provision of the Arbitration & Conciliation Act or any statutory modification or re-enactment thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceedings under this Clause.

b. It is a term of the contract that the party involving arbitration shall specify the dispute or dispute to be referred to arbitration under the Clause together with the amount or amounts claimed in respect of each dispute.

c. The arbitrator(s) may from time to time with consent of the parties enlarge the time, for making and publishing the award.

d. The work under the contract shall, if reasonably possible, continue during the arbitration proceedings and no payment due or payable to the Bidder shall be withheld on account of such proceedings.

e. The arbitrator shall be deemed to have entered on the reference on the date he issues notice to both parties / fixing date of the first hearing.

f. The arbitrator shall give a separate award in respect of each dispute or difference referred to him.

g. The venue of arbitrator shall be a place as may be fixed by the arbitrator in his sole discretion.

h. The award of the arbitrator shall be final, conclusive and binding on both the parties to this contract.

III.67. WORKMEN'S COMPENSATION ACT AND OTHER LABOUR ACT:

The Bidder shall employ labour, in sufficient number to maintain the required rate of progress and of quality to ensure workmanship of the degree required by the specification and to the satisfaction of the ENGINEER IN-CHARGE. The Bidder shall remain liable for the payment of all wages or other money to his work people or employees under the Payment of Wages Act, Employer liability Act, workmen's

Renovation of Classrooms at K Cluster at IIMB

compensation Act, ESI Act or any other Act or enactment relating thereto, and rules framed there under from time to time. The Bidder shall engage labour only on and during the working hours on the working days unless he obtains the prior written approval of the Engineer to do otherwise. If such approval is given no liability in respect of any excess cost arising there from shall be incurred by the IIMB.

III.68. FAIR WAGE:

The Bidder shall pay wages not less than fair wages to labourers, workmen engaged by him on the work fair wage means wage for the various categories of labour workmen fixed from time to time by the Labour Authorities of the area. The Bidder shall ascertain the minimum fair wage prevailing in the area before submitting tender.

III.69. The Bidder shall abide by all the provision of the Contract Labour (Regulation and Abolition) Act, which the Contractors are expected to have gone through before quoting for the tender, which interalia contain the following:

- a) Safeguard the welfare and health of labourers.
- b) Ensuing timely payment of wages to the labourers by the Contractors.
- c) Provide Rest Rooms and Canteen Facility and First Aid Facility.
- d) Obtain Registration Certificates and License issue by the competent authority.

The Bidder shall also comply with the requirements of act regarding the employment of the Child Labour.

III.70. INTERPRETATION:

a) In interpreting the conditions of contract, singular also means plural, male also means female or neuter and the other way around. Headings have no significance. Words have their normal meaning under the language of the contract (English) unless specifically defined. The ENGINEER IN-CHARGE or his nominee will provide instructions clarifying queries about the conditions of contract.

b) If sectional completion is specified in the contract data, references in the conditions of contract to the works, the completion date, and the intended completion date apply to any section of the work (other than references to the completion date and intended completion date for the whole of the works).

III.71. RESPONSIBILTY OF BIDDER AGAINST RISKS:

During currency of the contract it shall be the responsibility of the Bidder to safeguard all materials (tools, tackles, plant, equipment etc. either issued by IIMB or brought by the Bidder), against all losses, damages, on account of thefts shortages, fire or any reasons whatsoever and IIMB shall not be responsible for loss, damages etc. as aforesaid. The Bidder shall solely be responsible for protecting and securing such property.

III.72. INSPECTION OF WORK:

a) The Engineer-in-Charge shall have power at any time to inspect and examine any part of the works either at the manufacturing plant or at the site of execution and the

Renovation of Classrooms at K Cluster at IIMB

Bidder shall give such facilities as may be required to be given for such inspection and examination.

b) Should the Engineer-in-Charge consider, at any time during the construction or reconstruction or prior to the expiration of the maintenance period, that any work has been executed with unsound imperfect or unskilful workmanship or of a quality inferior to that contracted for, or not otherwise in accordance with the contract (in respect whereof the decision of the Engineer-in-Charge shall be final binding and conclusive), the Bidder shall on demand in writing from the Engineer-in-Charge specifying the fault, notwithstanding that the same may have been inadvertently passed, certified and paid for, forthwith rectify or remove and reconstruct the work so specified, in whole or in part as the case may require, at his own expense to the entire satisfaction of the Engineer-in-charge, and in the event of his failing to do so within a period to be specified by the Engineer-in-Charge in its demand aforesaid, IIMB may carry out the work by other means at the risk and expense in all respects of the Bidder. However, the liability of the Bidder under this conditions shall not extend beyond the maintenance period except as regards workmanship which the ENGINEER IN-CHARGE shall have previously given notice to the Bidder to rectify.

III.73. APPROVAL OF WORKS BY STAGES:

All work consisting of more than one process shall be subject to examination and approval at each stage by the Engineer-in-Charge or his nominee thereof and the Bidder shall give due notice in writing to the Engineer-in-Charge when such stage is ready. In default of such notice being received, the Engineer-in-Charge shall be entitled to disallow the work or any part thereof at any time he may choose and in the event of any dispute, the decision of the Engineer-in-Charge thereon shall be final and conclusive.

If any work is so disallowed, the same shall be redone by the Bidder at his cost to the satisfaction of the Engineer-in-charge. Also in the event of failure of the Bidder to give notice, he shall uncover any part of the works and/or make openings in or through the same as the Engineer-in-charge may direct for his verification and shall make good such part to the satisfaction of the Engineer-in-charge at the Bidder's expense.

III.74. Special Condition as stated in Clause are fully read and are acceptable to me/us.

Date:
.....
.....
.....

Date:
Name:
Address:

I / We agree to execute the above contract as per drawings and specifications of IIMB within the stipulated time of **Forty Five Days only** from the date of commencement specified in the work order.

IV. PRICE BID CONDITIONS:

E-Bids are invited through the electronic tendering process and the Tender Document can be downloaded from the e-Tender Central Public Procurement Portal (CPPP) of Government of India, <https://eprocure.gov.in/eprocure/app>. The submission of e-Bids will be only through the e-Tender portal <https://eprocure.gov.in/eprocure/app> Bids will not be accepted in any other form.

The prospective bidders should adhere to deadlines specified in Tender Details Screen corresponding to this Tender on E-Tender portal <https://eprocure.gov.in/eprocure/app>.

General Instructions to Bidders:

- 1) For participation in e-procurement all bidders need to enroll themselves on the CPP Portal (<https://eprocure.gov.in/eprocure/app>). Only enrolled/registered bidders with the said portal shall be allowed to participate in the e-tendering process.
- 2) Tender Documents may be downloaded from Central Public Procurement Portal <https://eprocure.gov.in/eprocure/app>. Aspiring Bidders who have not enrolled/registered in e-procurement should enroll/ register before participating through the website <https://eprocure.gov.in/eprocure/app>. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at 'Instructions for online Bid Submission'.
- 3) Tenderers can access tender documents on the website (For searching in the NIC site <https://eprocure.gov.in/eprocure/app>, kindly go to Tender Search option, select tender type and select 'Indian Institute of Management Bangalore' in department type. Thereafter, Click on "Search" button to view all IIM Bengaluru tenders). Select the appropriate tender and fill them with all relevant information and submit the completed tender document online on the website <https://eprocure.gov.in/eprocure/app> as per the schedule.
- 4) The Bidders should have Java 8 update 231 version-32 bit for uploading the bid in the CPP Portal.
- 5) IIMB neither operates nor manages the CPP Portal where online bids are submitted and therefore will not be responsible for any technical issues related to bid submission (viz., being not being able to upload bid, blank/missing/part documents etc.). If the bid is incomplete on account of this, it will be treated as such and evaluated further. For any technical queries/issues related to online bid submission, Bidders must directly approach the support service of CPP Portal as per the details given on their website.

Bill of Quantity (BOQ)- Price bid

Bidders should necessarily submit their price bid in the format provided and no other format is acceptable. The prices mentioned in BOQ shall be considered for evaluation and comparison of bids. Bidders are required to download the BOQ file, open it and complete the Blue coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected.

Submission of Online Bids:

- 1) Bids shall be submitted online only at CPPP website <https://eprocure.gov.in/eprocure/app>.
- 2) Bids received by Manual/ Offline bids /E-mail shall not be accepted under any circumstances.
- 3) The Bidder shall download the Tender Document directly from the website <https://eprocure.gov.in/eprocure/app> and shall not tamper/modify it in any manner. In case the same is found to be tampered/modified in any manner, such Tender/Bid will be summarily rejected and EMD would be forfeited.
- 4) The complete bidding process is online. Bidders should be in possession of a valid Digital Signature Certificate (DSC) of class III for online submission of bids. Prior to bidding DSC needs to be registered on the website mentioned above.
- 5) Bidders are advised to go through "Bidder Manual Kit" & "FAQ" links available on the login page of the e-Tender portal for guidelines, procedures & system requirements. In case of any technical difficulty, Bidders may contact the help desk numbers & email ids mentioned at the e-tender portal. Every Bidder will be required to obtain a Class-III Digital Signature (DSC) for submission of Bids.
- 6) IIMB shall receive the bids online through CPPP portal only. The e-Tender portal shall automatically stop accepting bids after the scheduled date and time specified in the Tender Document. Partially submitted bids shall be treated as invalid and shall not be processed.

7) Due date for Submission of Bids:

- i) EMD must be paid through online transfer as per the bank details mentioned in this document within the due date of submission of bids.
- ii) **Bidders are advised to upload, submit and freeze their E-bids** within the due date for submission of E-Bids in view of the electronic process so as to avoid last minute issues.
- iii) IIMB may, at its discretion, extend the deadline for submission of bids by amending the bid documents in accordance with Clause relating to Amendment of Bidding Documents in which case all rights and obligations of IIMB and Bidders previously subject to the deadline will thereafter be subject to the due date as extended.

8) Late Submission of EMD:

- i) Any EMD received by the IIMB after the due date for submission of bids prescribed by the IIMB is liable to be rejected.
- ii) Bidders must note that the e-tender portal shall not permit uploading of bids after the scheduled time of submission.

9) Withdrawal, Substitution and Modification of Bids:

i) The bidder may withdraw or resubmit the modified bid his digitally signed bid after submission prior to the deadline for submission of bids, through provisions of e-tendering portal. For this, the bidder shall go to 'My Active Bids' and either withdraw or resubmit the modified bid.

10) Opening of E-Bids:

i) The E-bids shall be opened online by authorized officials of IIMB as per schedule given in the Tender Notice. In the case of two bid tender, the Price bid of only those bidders who qualified in technical evaluation, shall be opened.

ii) In the event of the specified date of Bid opening being declared a holiday for IIMB, the Bids shall be opened at the appointed time on the next working day. In two-part bidding, the financial bid shall be opened only after technical evaluation. No separate intimation shall be sent to the bidders in this regard.

iii) Since E-bid is an online process, the E-bid opening or any other process may be delayed due to any technical/server issue. If any such issue arises, this will not be tantamount to the process delay and IIMB will not be responsible for the same.

iv) On opening of technical bids online, accepting the bid will not mean that the firm is technically or financially qualified.

v) Bids will be opened online on the specified date and time. There is no need to visit IIMB premises to attend bid opening. If the bids cannot be opened on the due date and time due to any technical or administrative issues (network/connectivity issues, holidays, office closure etc.) the bids will be opened as soon as the issue is resolved or next working day as the case may be. Bids submitted online on CPP portal are safe, secure, and confidential and can be seen only after opening following the due process.

V. SCOPE OF WORK

INTERIOR WORKS:

1. Partitions.
2. Furniture.
3. Modular Furniture.
4. Flooring.
5. False Ceiling Works - (Modular False Ceiling/ Gypsum False Ceiling)
6. Acoustic Panel.

Above items are only indicative and for guidance & brief description of jobs but should not be considered limited to this list. Tenderer should refer to the detailed tender documents, technical specifications and drawings for detailed items and scope of work included in this project. Any discrepancy in the above shall be brought to the notice of IIMB in the pre-bid meeting.

VI. SAFETY CONDITIONS

1. General:

The Bidder shall take all safety precautions / measures and ensure safety for the works, he has been contracted to execute. He shall follow all relevant safety codes of CPWD and IS codes and safety manuals. Some of the more important measures are listed below. The Bidder shall implement any further measures which may be required as per the safety codes of CPWD/ IS codes etc. and the measures which the Engineer may call for during the execution of the work.

2. Scaffolding:

Suitable scaffolds shall be provided for workmen for all work 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 labourer shall be engaged for holding the ladder and suitable footholds and handholds shall be provided on the ladder and the ladder shall be given an inclination not steeper than 1/4 to 1 (1/4 horizontal and 1 vertical).

3. Guard Railing in Scaffolding / Staging / Platforms:

Scaffolding or staging more than 3.25 meters above the ground floor or floor swung or suspended from an overhead support or erected with stationary support, shall have a guard rail properly attached, bolted, braced and otherwise secured at least 1 meter high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such openings as may be so fastened as to prevent it from swaying from the building or structures.

4. Working Platform / Gangway / Stairway:

Working platform, gangways and stairways shall be so constructed that they do not sag unduly or unequally, and if height of a platform or gangway or stairways is more than 3.25 meters above ground level or floor level, it shall be closely boarded, have adequate width and be suitably fenced provided with guard rail as described in 2 above.

5. Access to working platforms and other working places:

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 5 meters in length. Width between side rails in a rung ladder shall in no case be less than 30 cm. for ladders upto and including 3 meters in length. For longer ladders this width shall be increased at least 6 mm. for each additional 30 cm. of length. Uniform step spacing shall not exceed 30 cm.

6. Hoisting Machines:

Use of hoisting machines and tackle including their attachments, anchorage and supports shall conform to the following:

Those shall be of good mechanical construction, sound material and adequate strength and free from patent defects and shall be kept in good repair and in good working order. Every rope used in hoisting or lowering materials or as a means or suspensions shall be of durable quality and adequate strength, and free from patent defects.

Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 shall be in charge of any hoisting machine including any scaffold winch or give signals to operator.

In case of every hoisting machine and of every chain ring hook, shackle swivel and pulley block used in hoisting or lowering or as means of suspension, safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with 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 displayed on the machine prominently. No part of any machine or of any gear referred to above in this paragraph shall be loaded beyond safe working load except for the purpose of the testing.

Motors gearing, transmission, electric wiring and other dangerous parts of hoisting appliances shall be provided with efficient safeguards; hoisting appliances shall be provided with such means as will reduce to the minimum, risk of accidental descent of load. Adequate precautions shall be taken to reduce to the minimum risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations which are already energised, insulating mats, working apparel such as gloves, sleeves and boots, as may be necessary shall be provided. Workers shall not wear any rings, watches and carry keys or other materials which are good conductors of electricity.

Load tests: All cranes, hoisting machines etc. shall be load tested. Bidder shall submit test certificate from competent, authorised person before use.

7. Demolition works:

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

- a. All roads and open areas adjacent to the work site shall either be closed or suitably protected.
- b. No electric cable or apparatus which is liable to be a source of danger over a cable or apparatus used by Bidder shall remain electrically charged.
- c. All practical steps shall be taken to prevent danger to persons employed, from risk or fire or explosion, or flooding. No floor, roof, or other part of a building shall be so overloaded with debris or materials as to render it unsafe.
- d. All blasting materials shall be stored and handled as per guidelines of relevant authorities.

8. Barricades:

i. Bidder shall erect and maintain barricades required in connection with his operation to guard or protect:

- a. Excavation / Hoisting / Lifting areas
- b. Slab Openings
- c. Areas adjudged hazardous by Bidder's or Engineer's Inspection.
- d. Existing property subject to damage by Bidder's operations.

ii. Bidder's employees and those of his sub-Contractors shall become acquainted with IIMB / Engineer's barricading practice and shall respect the provisions thereof.

9. Net & Protective Platform:

The Bidder shall provide & maintain a closely knitted PVC net all-round tall buildings throughout the construction period. He shall also provide all-round from external face

Renovation of Classrooms at K Cluster at IIMB

about 1.5 M+ wide temporary platforms at all the floor covered with welded steel mesh. This shall be maintained & updated throughout the construction period to avoid any accident due to dropping of construction materials/debris. This shall be strictly followed, and work shall be permitted only when complied to satisfaction of the Engineer. If the above are not fully taken care of the Engineer reserves the right to get the same carried out through other agency at the risk and cost of the Bidder.

10. Prevention of Fire and Protection:

All combustible waste materials, wood scaling, soiled rags, etc. should be removed daily and burned in suitable areas.

Fire, welding, and flame cutting should not be permitted in combustible areas. Fires and open flame devices should not be left unattended.

Smoking should be prohibited in all flammable material storages, viz. carpentry, paint shops, garages, service stations, etc. "No Smoking" signs should be posted on all such areas.

Accumulation of flammable liquids on floor, walks, etc, should be prohibited. All spills of flammable liquids should be cleaned up immediately.

Flammable liquids, lubricants, etc. should be handled and transported in safety containers and drums which can be kept tightly capped.

Petrol or other flammable liquids with a flash point below 100 Deg F should not be used for cleaning purposes.

Oxygen cylinders should not be stored with combustible materials.

All electric installations should be properly earthed. Repairs should not be made on electrical circuits until the circuit has been de-energized.

Fire extinguishers & fire buckets, painted red, should be provided at all fire hazardous locations. Extinguishers should be inspected, serviced & maintained in accordance with manufacturer's instructions. The inspections should be evidenced by notations on the tag attached to the extinguisher.

Handling of Hazardous materials shall be as per statutory regulation.

11. Electrical Equipment:

All temporary and permanent electrical installations, power distribution and supply required for execution of Work shall be carried out conforming to existing industrial and domestic safety rules and regulations. Important specific points to be noted are as under:

Meter room and main switches should be freely accessible at all times and fully protected against all weathers.

Power distribution system shall be identifiable with display marking on switches.

All power distribution shall be carried out with coated, adequately, insulated and of appropriate current / load rating cables. It shall be securely routed for this purpose. No loose, naked, hanging wires shall be permitted.

Renovation of Classrooms at K Cluster at IIMB

Overload protection devices shall be installed whenever and wherever heavy current / load consuming construction or plant machinery susceptible to hazard is in use and as directed by the Engineer.

Metallic plugs and sockets shall be used in field work. Switch board shall be in close proximity so as to have quick control over the supply

Proper and adequate earthing connection to be provided for all installation, plant machinery and distribution system.

Hand lamps and inspection lamps shall be adequately insulated and guarded with wire mesh and will have proper plugs for use.

Security and illuminatory light shall be secured firmly and protected to withstand all weather.

12. Protective equipment / gears:

All necessary personal protective equipment as considered adequate by the IIMB and the Engineer shall be available for use of the persons employed on the site and maintained in a condition suitable for immediate use; and the Bidder shall take adequate steps to ensure proper use of equipment by those concerned.

- Workers employed on mixing cement concrete shall be provided with protective footwear & protective goggles, hand gloves of polythene type.
- Those engaged in handling any material which is injurious to eyes shall be provided with protective goggles.
- Those engaged in welding works shall be provided with welders protective eye-shields.
- The following safety equipment should be provided to workers as required and their use enforced. Rubber boots; hard toe protective safety boots; hard hats & helmets, safety belts; goggles for stone/concrete cutters., gas welding aprons, respirator shields, manila ropes and slings for life lines, gloves, flash lights, battery lamps, safety nets, boatswains chairs, helmets, life and ring buoys.

Items of personal wear should be maintained in serviceable condition and should before being reissued to other employees or returned to stores to be cleaned, sterilised, inspected and repaired, if necessary.

Loose and frayed clothing, hand rings, loose watch chains, etc. should not be worn around moving machinery or other sources of entanglement.

13. Other Safety Measures:

Every receptacle used for raising or lowering stones, bricks, tiles, slates, or other subjects should be enclosed, constructed or designed so as to prevent the accidental fall of such objects.

All gears, tools, goods or loose material should be properly loaded into the bucket or receptacle in which they are being raised or lowered. If necessary, they should be properly secured or effective precautions should be taken to prevent their fall.

No timber or materials with projecting nails should be used in any work because they can be a source of danger to people.

Renovation of Classrooms at K Cluster at IIMB

Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The Bidder shall provide all necessary fencing and lights to protect public accidents and shall be bound to bear expenses of defence of every suit, action or other proceeding at law that may be brought by any person for injury sustained owing to neglects of the above precautions and to pay any damages and costs which may be awarded in any such suit, action or proceedings to any such person or which may with the consent of the Bidder be paid to compromise any claim by any such person.

Adequate Safety Precautions shall be taken by the Bidder to ensure the Safety of the workmen engaged by him.

14. First Aid Injuries:

- i. Bidder shall maintain first aid facilities for his workmen. First aid appliance including an adequate supply of sterilised dressings and sterilised cotton wool should be maintained in a readily accessible place. Appliances should be kept in good order and they should be placed under the charge of a responsible person who should be readily available during the working hours.
- ii. Bidder shall make adequate arrangements for ambulance service and for treatment of injuries. Names of those providing these services shall be furnished to IIMB prior to start of constructions and their telephone numbers shall be prominently posted in Bidder's field office.

15. Maintenance:

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

16. Enforcement:

To ensure effective enforcement of the rules and regulations relative to safety precautions, arrangements made by the Bidder shall be open to inspection by the Engineer or his representatives and the Inspecting Officers.

17. Displays:

These safety provisions shall be brought to the notice of all concerned by display on a notice board at prominent places at the work spot. Persons responsible for ensuring compliance with the Safety Code shall be named therein by the Bidder.

18. Work permits:

The bidder shall at his own cost and responsibilities follow all the safety rules and regulations and safety codes such as: -

VII. GENERAL BUILDING CONDITIONS

MASONRY, PLASTERING AND PAINTING

Applicable Codes and Specifications

The following Indian Standard Codes, unless otherwise specified herein, shall be applicable. In all cases, the latest editions including all applicable official amendments and revisions shall be referred to.

- IS: 110 - Ready mixed paint, brushing, grey filler, for enamels for use over primers
- IS: 269 - Specification for 33 grade ordinary Portland cement
- IS: 280 - Specification for mild steel wire for general Engineering purposes
- IS: 287 - Recommendations for maximum permissible moisture content of timber used for different purposes
- IS: 304 - High Tensile Brass Ingots and Castings.
- IS: 337 - Varnish, finishing interior
- IS: 348 - French polish
- IS: 383 - Specification for coarse and fine aggregates from natural sources for concrete
- IS: 412 - Expanded metal steel sheets for general purposes
- IS: 419 - Specification for putty for use on window frames
- IS: 428 - Distemper, oil emulsion, colour as required
- IS: 459 - Specification for un-reinforced corrugated and semi-corrugated asbestos cement sheets
- IS: 702 - Specification for industrial bitumen
- IS: 710 - Specification for marine plywood
- IS: 712 - Specification for building limes
- IS: 730 - Specification for hook bolts for corrugated sheet roofing
- IS: 733 - Wrought aluminum and aluminum alloys, bars, rods and sections for general Engineering purposes
- IS: 777 - Specification for glazed earthenware tiles
- IS: 1003 - Specification for timber panelled and glazed shutters (Parts 1 & 2)
- IS: 1038 - Specification for steel doors, windows and ventilators

- IS: 1077 - Specification for common burnt clay building bricks
- IS: 1081 - Code of practice for fixing and glazing of metal (steel & aluminum) doors, windows and ventilators
- IS: 1124 - Method of test for determination of water absorption, apparent specific gravity & porosity of natural building stones
- IS: 1237 - Specification for cement concrete flooring tiles
- IS: 1322 - Bitumen felts for water proofing and damp proofing
- IS: 1346 - Code of practice for water proofing of roofs with bitumen felts
- IS: 1361 - Specification for steel windows for industrial buildings
- IS: 1397 - Specification for kraft paper
- IS: 1443 - Code of practice for laying and finishing of cement concrete flooring tiles
- IS: 1477 - Code of practice for painting of ferrous metals in buildings (Parts 1 & 2)
- IS: 1542 - Specification for sand for plaster
- IS: 1580 - Specification for bituminous compounds for water-proofing and caulking purposes
- IS: 1597 - Code of practice for construction of stone masonry: Part 1 Rubble stone masonry

Renovation of Classrooms at K Cluster at IIMB

- IS: 1659 - Specification for block boards
- IS: 1661 - Code of practice for application of cement and cement-lime plaster finishes
- IS: 1834 - Specification for hot applied sealing compound for joint in concrete
- IS: 1838 - Specification for preformed fillers for expansion joint in concrete pavements and structures (non extruding and resilient type): Part 1 Bitumen impregnated fiber
- IS: 1948 - Specification for aluminum doors, windows and ventilators
- IS: 1949 - Specification for aluminum windows for industrial buildings
- IS: 2074 - Ready mixed paint, air-drying, red oxide- zinc chrome, and priming
- IS: 2098 - Asbestos cement building boards
- IS: 2114 - Code of practice for laying in-situ terrazzo floor finish
- IS: 2116 - Specification for sand for masonry mortars
- IS: 2185 - Specification for concrete masonry units (Parts 1,2 & 3)
- IS: 2202 - Specification for wooden flush door shutters (Solid core type): Parts 1 & 2
- IS: 2212 - Code of practice for brickwork
- IS: 2250 - Code of practice for preparation and use of masonry mortars
- IS: 2338 - Code of practice for finishing of wood and wood based materials (Parts 1 & 2)
- IS: 2339 - Aluminum paint for general purposes, in dual container
- IS: 2395 - Code of practice for painting concrete, masonry and plaster surfaces (Parts 1 & 2)
- IS: 2402 - Code of practice for external rendered finishes
- IS: 2571 - Code of practice for laying in-situ cement concrete flooring
- IS: 2572 - Code of practice for construction of hollow concrete block masonry
- IS: 2645 - Specification of integral cement waterproofing compounds
- IS: 2690 - Specification for burnt clay flat terracing tiles: Part 1 Machine made
- IS: 2691 - Specification for burnt clay-facing bricks
- IS: 2750 - Specification for steel scaffoldings
- IS: 2835 - Flat transparent sheet glass
- IS: 2932 - Specification for enamel, synthetic, exterior type (a) undercoating, (b) finishing
- IS: 3007 - Code of practice for lying of asbestos cement sheets - corrugated and (Part 1 & 2) semi-corrugated sheets
- IS: 3036 - Code of practice for laying lime concrete for a waterproofed roof finish
- IS: 3067 - Code of practice of general design details and preparatory work for damp-proofing and water- proofing of buildings
- IS: 3068 - Specification for broken brick (burnt clay) coarse aggregates for use in lime concrete
- IS: 3384 - Specification for bitumen primer for use in waterproofing and damp proofing
- IS: 3461 - Specification for PVC-asbestos floor tiles
- IS: 3462 - Specification for unbacked flexible PVC flooring
- IS: 3495 - Method of test for burnt clay building bricks: Part 1 to 4
- IS: 3536 - Specification for ready mixed paint, brushing, wood primer, pink
- IS: 3564 - Specification for door closers (hydraulically regulated)
- IS: 3614 - Specification for fire checks doors: Part -I Plate metal covered and rolling type (Part -1)
- IS: 3614 - Specification for metallic and non-metallic fire check doors Resistance test and performance criteria (Part -2)
- IS: 3696 - Safety code of scaffolds and ladders (Parts 1 & 2)
- IS: 4020 - Methods of test for wooden flush door: Type test
- IS: 4021 - Specification for timber door, window and ventilator frames

Renovation of Classrooms at K Cluster at IIMB

- IS: 4351 - Specification for steel doorframes
- IS: 4443 - Code of practice for use of resin type chemical resistant mortars
- IS: 4457 - Specification for ceramic unglazed vitreous acid resisting tile
- IS: 4631 - Code of practice for laying epoxy resin floor toppings
- IS: 4832 - Specification for chemical resistant mortars (Part II)
- IS: 4860 - Specification for acid resistant bricks
- IS: 4948 - Specification for welded steel wire fabric for general use
- IS: 5318 - Code of practice for laying of flexible PVC sheet and tile flooring
- IS: 5410 - Cement paint, colour as required
- IS: 5411 - Specification for plastic emulsion paint (Parts 1 & 2)
- IS: 5437 - Wired and figured glass
- IS: 5491 - Code of practice for laying of in-situ granolithic concrete floor topping
- IS: 6041 - Code of practice construction of autoclaved cellular concrete block masonry
- IS: 6042 - Code of practice for construction of light weight concrete block masonry
- IS: 6248 - Specification for metal rolling shutters and rolling grilles
- IS: 7193 - Specification for glass fiber base coal tar pitch and bitumen felts
- IS: 7452 - Specification for hot rolled steel sections for doors, windows and ventilators
- IS: 8042 - Specification for white Portland cement
- IS: 8543 - Methods of testing plastics
- IS: 8869 - Specification for washers for corrugated sheet roofing
- IS: 9197 - Specification for epoxy resin, hardeners and epoxy resin composites for floor topping
- IS: 9862 - Specification for ready mixed paint, brushing, bituminous, black, lead-free, acid, alkali, water and chlorine resisting
- IS: 12200- Code of practice for provision of water stops at transverse contraction joints in masonry and concrete dams
- BS: 476
(Part - 20)- Methods for determination of the fire resistance of elements of construction (General Principles)
- BS: 476
(Part - 21)- Methods for determination of the fire resistance of load bearing elements of construction
- BS: 476
(Part - 22)- Methods for determination of the fire resistance of non-load bearing elements of construction
- Part - IV
Fire Protection- National Building code of India
- 3696-1987- Safety code for scaffolds and ladders.
- 4014 (part 2)- 1986 Safety regulations for steel tubular scaffolding
- 3764-1966- Safety code for excavation work.
- 4081-1986- Safety code for blasting and related drilling operation.
- 4130-1976- Safety code of demolition of building.
- 4138-1977- Safety code for working in compressed air
- 4912-1978- Safety requirements for floor and wall openings, railings and toe board

Renovation of Classrooms at K Cluster at IIMB

- 7969-1975- Safety code for handling and storage of building materials
- 13415-1992- Safety code for protective barriers in and around the building
- 13416-(part 2)- 1992 Recommendations for preventive measures against hazards at workplace- fall prevention
- 5916-1970- Safety code for construction involving use of hot bituminous material.
- 7293-1974- Safety code for working with construction machinery.
- 8989-1978- Safety code for erection of concrete framed structure.
- 7205-1973- Safety code for Erection of Structural steel works

VIII. TECHNICAL SPECIFICATIONS

GENERAL

A: MATERIALS

Materials shall be of the best approved quality obtainable/ available and they shall comply to the respective Bureau of Indian Standard Specification.

Samples of all materials shall be got approved before placing order and the approved sample shall be deposited with IIMB.

Incase of non-availability of materials in metric sizes, the nearest highest size in FPS units shall be provided with the prior approval of IIMB for which neither extra will be paid nor any rebate shall be recovered.

If directed, materials shall be tested in any approved Testing Laboratory and the Test certificate in original shall be submitted to IIMB and the entire charges of testing including charges for repeated shall be borne by the Tenderer.

It shall be obligatory for the tenderer to furnish Certificate, if demanded by IIMB from the manufacturer or the material supplier that, the work has been carried out using their material and as per their recommendation.

All materials supplied by or through IIMB or other firms if any, shall be properly stored the tenderer shall be responsible for its safe custody until they are required on the works/ until the completion of work.

Unless otherwise shown on the drawings or mentioned in the Schedule of Quantities or Specification the quality of materials, workmanship, dimensions etc., shall be specified here-in-under.

All equipment and facilities for carrying out filed tests on materials shall be provided by the tenderer without any extra cost.

1. WOOD

- A. Teak wood means:** Superior quality, Dandeli, Bellarsha, Chandapur, Gana, Malaba teak seasoned, uniform colour, straight grain and shall be free from large, loose, dead knots, cracks, wraps, twists, bends, borer holes, shakes, sap wood or any other defect. No individual knot shall be more than 1 cm in dia. The annual growth rings shall be 6 Nos. per 2.5cm. The moisture content shall not exceed 12%.
- B. White Cedar means:** First class well seasoned Indian White cedar wood uniform in colour, straight grains, with out any knots. It shall be free from large loose dead knots, cracks shakes, wraps, twists, bends, sapwood or defects of any kind. No individual hard and sound knot shall be more that 2.5cm. in diameter and aggregate area of all knots shall not exceed 1% of the area of the piece. There shall not be less than 6 growth rings per 2.5cm width. The moisture content doesn't exceed 12%.
- C.** The wood should be seasoned as per BIS 1141-1985 or its latest edition.

D. TIMBER: The moisture content in Timber does not exceed 12%

In measuring cross sectional dimensions of the Frame pieces tolerances upto 1.5mm shall be followed for each planed surface.

E. FIRST CLASS INDIAN TEAKWOOD:

First class Indian teakwood means best quality Burma Teakwood and well seasoned. It shall be uniform colour, straight grains and shall be free from large loose dead knots, cracks, shakes, wraps, twists, bends, sapwood or defects of any kind no individual hard and sound knot shall be more than 2.5cm in diameter and aggregate area of all knots shall not exceed 1% of the area of the piece. There shall not be less than 2-3 growth rings per 2.5cm width.

2. PLYWOOD:

Strictly in accordance with its IS 303:1989

Grades: Plywood for general purposes shall be of the following two grades, depending upon the bonds strength developed by the adhesive used for bonding the veneers:

Boiling water resistant or BWR Grade and
Moisture resistant of MR Grade

These shall be manufactured in accordance with relevant IS code i.e: IS 303:1989. the grade shall conform to the general requirements given as per relevant IS codes i.e: IS 303:1989 (Third revision).

Plywood for general purposes shall be classified into three types namely, AA, AB and BB based on the quality of the two surfaces, namely A and B in terms of general permissible defects. The type plywood shall, therefore, be designated by the kind of surfaces of the panels. The better quality surface shall be called "face", and the opposite side shall be called "Back". If the face and the back are of the same quality, they are not distinguished. The type of plywood shall denote first the quality of face followed by the quality of back. Eg: Type AA shall have both surfaces of quality of A. Type AB shall have face of quality A and the back of quality B and type BB shall have both the surfaces of quality B.

The quality requirement of each of the surfaces mentioned should be as per IS 303:1989. However the maximum no of categories of defects, permitted on any of surface of the panes shall be restricted in accordance with the requirement.

MATERIALS:

Timber: Any species of timber may be used for plywood manufacture as per IS 303:1989 (Third Revision).

Adhesive: The adhesive use for bonding the veneers in different grades plywood shall be the corresponding type of adhesive as specified in IS 848:1974.

Extenders conforming to IS 1508 : 1972 may be used with the synthetic resin adhesive (amino resin). However, synthetic resin adhesive (amino resin) when extended by more than 25% shall contain suitable preservative, chemicals in sufficient concentration to satisfy the mycological test.

MANUFACTURE:

The veneers for all the grades shall be either rotary cut or sliced. The veneers shall be sufficiently smooth to permit an even spread of adhesive. The treatment as specified below shall be given to the plywood wood either at the vendor stage or after converting the veneers into boards.

TREATMENT:

Veneers from non-durable species and sapwood of all species when used for plywood manufacture shall be soaked in 1.25% solution of boric acid or 1.9% solution of borax at a temperature 85-90 degree centigrade for a period of 10-40minutes depending upon the thickness of the veneers or the veneers may be dipped in 2 percent solution of boric acid or 3 percent borax solution for 2 minute and block stacked at at least for two hours. Alternatively, the veneers may be soaked at an ambient temperature in a mixture of 0.5% solution.

For BWR grade of plywood bonded with synthetic resin adhesive the preservative may be given conveniently after boards come out of the press, while still hot or the treatment given to the veneers before bonding.

For BWR grade, fixed type of preservative may be used according to relevant IS code ie: IS 5539:1966.

ASSEMBLY:

The thickness of all veneers shall be uniform within a tolerance of + or - 5%

Corresponding veneers on either side of the central ply and those of face back veneers shall be species having similar physical and mechanical properties, such as, density, modulus of elasticity, shrinkage, etc., to ensure balanced construction.

JOINTS IN VENEERS:

Veneers that require to be joined to form a ply shall be spliced (edge joined) before assembly. All joints shall be cut square. They may be taped on the face of the outer veneers in which case the tape shall be removed at a later stage, and metal clips or staples, if used, shall be removed. Perforated tapes may be used on the glue side of the veneers. In assembly, joints in veneers running in the same direction shall be staggered. End joints and butt joints shall not be permitted for any of the surfaces.

GRAIN DIRECTION:

Unless otherwise specified, and except in boards comprising an even number of plies, the direction of grain of the veneer in adjacent plies shall be at right angles to each other, and that of the outer plies shall run parallel to the longer side of the board. In boards comprising even number of plies, the grain of the center pair shall follow the same direction. In adjacent plies, the grain should be at right angles to each other.

Renovation of Classrooms at K Cluster at IIMB

However, a deviation not exceeding 10 degree may be permitted. In all cases the grain on both faces of the assembly boards shall run in the same direction.

SCARF JOINTS:

When sizes larger than the available press sizes are required, scarf joints through the thickness of the board are permitted. All scarf joints shall be bounded with the same or a better adhesive than the one used for the manufacture of plywood, and shall be made with an inclination not greater than 1 in 12.

PERMISSIBLE DEFECTS:

Gap in cores and cross-bands may be permitted except for 3 ply plywood provided the width of the gap does not exceed 1mm in case of and 2 mm incase of plywood of more than 5 ply and provided such gaps, if more then one, shall be spaced not less than 80 mm away from each other and are staggered not less than 50 mm away as between ply, the next ply having the same grain direction.

Splits in cores and cross-bands may be permitted to an extent of 2 per core or cross band.

Overlap shall be permitted.

DIMENSIONS AND TOLERANCES:

The dimensions of plywood boards shall be as given in IS12049:1987.

Thickness: unless otherwise specified, thickness of plywood boards shall be as specified in table. The thickness shall be measured up to one place of decimal.

TOLERANCES:

The following tolerances on the nominal sizes of finished boards shall be permissible:

	Dimension	Tolerance
a)	Length	+ 6mm
b)	Width	+3mm
	Thickness	1)Less than 6mm 2) 6mm and above
		+/- 10% +/- 5%
c)	Squatness	0.2%
d)	Edge straightness	0.2%

Thickness of plywood board as per IS303:1989 (Third Revision)

WORKMANSHIP AND FINISH:

The plywood board shall be of uniform thickness within the tolerance limits as per IS 30:1989 (Third Revision).

The faces of plywood boards shall be reasonably smooth and face veneers shall be of reasonably uniform thickness. Slight sanding may be given to rough board in order to make them reasonably smooth. The squareness and edge straightness of the board when measured according to the procedure give as per IS303:1989 (Third Revision).

3. BUILDERS HARDWARE:

All hardware fittings and fixtures shall be made with structural properties to sustained safety and with stand strains to which they are normally subjected to such as opening and closing, wind pressure etc. the fitting shall generally confirmed to relevant specification. They shall be made true clear, straight with sharply defined profiles and unless otherwise shown specified with true smooth surfaces and edges, free from defects.

The metal shall be treated with finish as specified in the schedule of quantities.

4. GLASS:

Glass shall be of specified thickness Indian plane glass of approved manufacturer without any waves, air holes etc.

5. BUTT HINGES

Hinges should be of any manufacturers with 14 gauge Brass body with stainless steel rod to be fitted with the shutter etc. with G.I standard screws.

Brass hinges shall be manufactured by casting, unless it is specifically mentioned that the same shall be extruded type in which case these shall be manufactured from extruded sections. The size of butt hinges shall be taken as length of the hinge. The center pins/ rod should be of stainless steel only.

6. TOWER BOLT

Tower bolt to be of anodized Aluminum powder coated heavy duty and are to be treated with the shutter with powder coated screws and to be of M/s. Jyothi make or equivalent.

7. GENERAL

The measurement of the works executed shall be as per IS-900 (latest) or as given in the tender documents.

The materials and items to be provided by the Contractor shall be the best of their respective kinds & as approved by the Owner / ENGINEER IN-CHARGE. The Contractor shall have to supply samples of all materials, which he proposes to use, and obtain the approval of the Owner / ENGINEER IN-CHARGE before placing bulk order. Bulk materials shall be brought to the site in the original packing/containers. Seal of such packing shall be opened in the presence of the Owner / ENGINEER IN-CHARGE . Any materials not found as per approved samples/specifications shall be rejected and removed and removed from site immediately by the Contractor is required to produce the vouchers towards purchase of materials from concerned vendors / agencies whenever called for by the Owner / ENGINEER IN-CHARGE. THE CONTRACTOR SHALL CARRY OUT ALL TESTS FROM APPROVED GOVT. TEST LABORATORY FOR MATERIALS BROUGHT / USED / INTENDED TO BE USED AT SITE. THE CONTRACTOR SHALL CARRY OUT ALL SUCH TESTS AT HIS OWN COST & TIME.

All standards, Technical Specifications, Codes of Practice referred to shall be of the latest Editions including all applicable official amendments and revisions whether such reference has been made or not. The contractor shall make available at site all relevant

Indian Standards Specification and Codes of Practice for reference of Owner / ENGINEER IN-CHARGE. at no cost to the Owner / ENGINEER IN-CHARGE.

In case of discrepancy between the Standards, Code of Practice, Technical Specifications and other Specification referred to, these Specifications shall govern.

8. RECONSTITUTED TIMBER

8.1 Timber used for reconstituted timber products

The Timber shall be free from decay, fungal growth, boxed heart, pitch pocket or streaks on the exposed edges, split and extras.

8.2 BWR Plywood

BWR (Boiling Water Resistant) plywood should be manufactured in strict adherence to IS:303:1989 from Veneers of specially selected and well seasoned hardwood timber and bonded with superior grade Phenol Formaldehyde Synthetic Resin Adhesive conforming to IS:848:1974 and chemically treated with preservatives such as Copper Chrome Preservative, to make the Plywood Boiling Water Resistant, Termite / Insect Resistant.

For **Termite resistant, fungi & white ants attack** a permanent preservative treatment should be given by vacuum pressure impregnation with fixed type preservatives as per IS:5539:1969.

BWR Plywood boards should be formed by gluing and pressing three or more layers of veneers with the grains of adjacent veneers running at right angles to each other. The spread of glue. Face veneers may be either commercial or decorative on both sides or one side commercial and the other decorative.

Type of face veneer and grade of plywood boards shall be, as specified. Unless otherwise stated, only BWR grade plywood boards shall be used.

Unless otherwise specified, the plywood boards shall be delivered in a clean condition and shall be suitably packed according to normal trade.

Thickness and Tolerance

The following tolerances on the thickness of finished boards shall be permissible:-

Thickness	Tolerance
1) less than 6mm	:± 10%
2) 6mm and above	:± 5%

8.3. Number of plies in plywood boards shall be as per Table given below.

Table:

Thickness (in mm)	No. of ply (Excluding Outer Most Layer) (minimum)
3	
6	5
9	7
12	9
19,25	11

8.4 Moisture content

The moisture content of the plywood boards when tested in accordance with IS: 1783 (Part 1) shall not be less than 8 per cent and not more than 12 per cent.

8.5 Testing

One sample for every 100sqm or part thereof shall be taken and testing done as per IS:303 for mass work wherever desired by the Owner / ENGINEER IN-CHARGE. Where the source of supply does not change, frequency of sampling may be varied at the discretion of the Owner / ENGINEER IN-CHARGE. However, testing may be not done if the total requirement of plywood / boards is less than 100 sq.m. All the samples tested shall meet the requirements of physical and mechanical properties of plywood / boards specified.

Following tests may be carried out.

A) Test to be conducted on SITE:-

Thickness test (by Vernier Scale)

Boiling water tests

Adhesive test / knife test (for checking the bonding)

8.6 The Sample Testing

Samples collected randomly from each of the boards selected shall be subjected to the tests specified as under:

i) Glue Adhesion:

Plywood when tested in accordance with IS: 1734(Part 4):1983 shall have an average and a minimum individual shear strength not less than as specified in the respective IS Code.

ii) Water Resistant test:

The plywood when tested in accordance with IS:1734(Part 6):1983 shall have an average and min. individual shear strength not less than as specified in the respective IS Code.

iii) Moisture Content test:

The plywood when tested in accordance with IS 1734 (Part 6):1983 shall have an average and min. individual shear strength not less than as specified in the respective IS Code.

iv) Procedure of Edge Straightness:

The straightness of the edges and ends of plywood shall be verified against a straight edge not less than the full length of the plywood. If the edge on the end of the plywood is convex, it shall be held against the straight edge in such a way as to give approx. equal gap at each end. The largest gap between the straight edge and the edge shall be measured to the nearest millimeter.

v) Procedure for square ness:

The squareness of plywood shall be checked with a 900mm x 900mm square, by applying one arm of the square to the plywood. The max. width of the gap shall be recorded.

vi) Visual Inspection:

Each plywood shall be legibly and indelibly marked or stamped with the Following:

- a) Indication of the source of manufacture
- b) Year of manufacture
- c) Batch No. and type of grade.

8.7 BWP Block Boards:-

BWP (Boiling Water Proof) Block board be manufactured as per IS:1659:1990 (Third Revision) from well-seasoned and carefully selected hardwood batons and bonded with superior grade Phenol Formaldehyde Synthetic Resin Adhesive conforming to **IS:848:1947** and chemically treated with preservatives such as Copper Chrome Preservative.

Block Boards shall have a solid core made up of uniform strips of wood all pre treated with preservatives, each not exceeding 30mm in width, which may or may not be glued together the core be glued between two or more outer veneers, with the direction of grains of the block board the core strip shall be of one species of timber only. Both surfaces of the boards shall be sanded to a smooth finish. Face veneers may be decorative or commercial on both faces or decorative or commercial on other. Type of face veneers, thickness and grade of block boards shall as specified. Unless otherwise stated, grade I (Exterior grade) block board as per IS:1659:1990 shall be used for construction. Trimmed and cut ends of a finished block board shall be given a protective treatment. The wooden strips for core shall be cut out from timber seasoned to a moisture content not exceeding 12 percent according to IS:1141:1978.

8.8 The block board should have density of **0.7 – 0.80** gms / cc, Mechanical strength and high nail holding capacity. There should be no twisting under wood working, warp less surface, free from core gaps, swelling in cold water be much less than 1%.

8.8.1 For **Borer Free** core, veneer & wooden battens should be treated with chemical which ensure that every layer should be protected from borer attack.

8.8.2 Adhesive

The adhesive used for bonding shall be of BWR type synthetic resin conforming to IS:848:1974 for Grade I block boards. Extenders conforming to IS:1508:1972 may be used with the synthetic resin adhesive (amino resins). However, synthetic resin adhesives (amino resin) when extended by more than 25 percent shall contain suitable preservative chemicals in sufficient concentration to satisfy the mycological test.

8.8.3 Testing

One sample for every 100sqm or part thereof shall be taken on random basis and testing done as per specified IS code for mass work where the source of supply does not change, frequency of sampling may be varied at the discretion of the IIMB., as per code **IS:1659:1990**. However, testing may not be done if the total requirement of block boards in work is less than 100sqm. All the samples tested shall meet the requirements of the physical and mechanical properties of block boards specified in the relevant B.I.S. code.

9. MARINE PLY

Marine ply shall be made of selected hardwood panels, which have undergone vacuum impregnation as per IS:5539:1969. It resists high humidity climatic variation borer insects & alternate wetting & drying. As per IS:710 / 1976 shall be 12mm thick and have core of seen ply and the commercial face veneer shall be of AA grade especially where ply is not to be clad.

Moisture Contents Test : 5%-15%

Glue Shear Strength

Dry State (CL-8.1.2.1) : Individual minimum 1078.7
Average 1323.9

After Water Resistant (CL-8.1.3.1) : Individual minimum 784.5
Average 980.7

After Mycological Test (CL-8.1.5 & 8.1.3.1): Individual minimum 784.5
Average 980.7

Note: All exposed edges of BWP Plywood / BWP Block board shall be lipped by White beach wood of 10mm thickness or laminate as shown in IIMB drawing.

10. Timber

The timer shall be of the best of its kind available, properly seasoned, of mature growth & it shall be free from decay and insect attack, saps, warps, cracks, knots & knot holes and any other defects which may effect the looks or harm the strength of the member. All the timber shall seasoned as per CPWD Specifications.

Moisture Contents:

Sl. No	Use	Maximum Permissible Moisture Content of Timber
a	Beams, Rafters, Posts	12%
b	Doors and windows i) 50mm and above ii) Thinner than 50mm	10% 8%
c	Flooring strips	8%
d	Furniture and Cabinet work	8% to 12%

Average Moisture content of all samples from a lot shall be within +3 per cent and moistures of individual samples within +5 percent of maximum permissible moistures content specified above. These tolerances are the absolute values over the percentage moisture content for Sl.No. a & b of the table. No. tolerance on moisture content is permitted for Sl. No. c & d of the table.

11. Teak Wood – (Burma teak):

Where teak wood is specified, it shall mean Burma teak wood. Teak wood for all joinery work shall be fully seasoned quality teak wood free from any defects and shall be of the approved quality, free from soft heart, worm and shall weight not less than 640 kg per cubic meter. For exposed portion no knots will be permitted. In unexposed parts individual hard & sound knots shall not exceed one percent of the area, of the piece.

11.1 Hard Wood:

Where hard wood is specified, it shall mean first class Sal wood (locally best available). Timber shall be of good quality and well-seasoned. It shall be free from dead knots, cracks, shale sans sap wood. No individual hard and sound knot shall exceed 25mm in diameter or shall the width the member and aggregate area of all the knots shall not exceed 1% of the area of the piece. Such knot will be permitted where in the opinion of the Owner / ENGINEER IN-CHARGE. Does not affect the structural strength of the member. The sap wood shall not be permitted to be used. Average unit weight be not less than 881kg per cubic meter.

12. Decorative Veneer Ply

The decorative veneer should have attractive appearance due to figure, colour, grain, luster etc. The decorative veneer surface shall be selected for figure, texture, color and grain characteristics. It shall be free from all manufacturing and wood defects except those as specified. The veneer shall be finished as specified and shall be of equal or superior quality to that laid down in IS:1328:1996. Wherever Decorative wood veneer ply is specified, the same shall be of group match only and grains/flowers shall be strictly placed either horizontally or vertically or diagonally and matched as per instructions of the Owner / ENGINEER IN-CHARGE.

Decorative veneers shall be rotary cut or sliced from a wooden flinch made by lamination of veneers. Sliced veneers shall be spliced & skillfully oriented to from a desired grain patterns & textures like group matching or book matching patterns shall be laminated on plywood sheets under high heat pressure. Plywood used for the manufacture of veneered decorative plywood shall be bonded with synthetic resin adhesive of BWR grade conforming to IS: 848:1974.

12.1 The decorative veneered surface shall be free from torn grain, dead knots, discoloration and sapwood. Where group match veneers are specified it shall refer to a certain number of decorative matched plywood panels, matching in figure, colour and grain as required to form a group to give an over all general effect, the quantity of each group unless mentioned in the schedule shall be restricted to at least one enclosed cabin space, as the case may be. The decorative veneered surfaces with figures shall not be allowed unless specified with schedule.

12.2 THICKNESS

The following tolerances shall be permitted on the thickness:-

Positive = 10 percent of nominal thickness

Negative = 5 percent of nominal thickness.

12.3 TESTS

Samples collected randomly shall be subjected to the test specified as under:-

12.4 Moisture Content:-

Decorative veneered plywood of either type when tested in accordance with IS:1734(Part – I):1983 shall have a moisture content of not less than 5% and not more than 15%.

12.5 Water Resistance Test:-

Decorative veneered plywood when tested in the manner specified shall not show delimitation or blister formation.

12.6 Visual Inspection:-

- i) Ply shall be visually inspected to ensure that decorative veneered surface confirm to the requirements specified in the tender document. They shall also be inspected for de-laminations, blisters or surface defects.
- ii) Marking:-
Decorative veneered plywood shall be clearly marked in suitable position with the following information:
 - a) Manufacturer's name or trademark.
 - b) Grade, and BWR or BWP Type
 - c) IS or BIS certification markings.

12.7 DELIVERY

The decorative plywood shall be brought to site in a clean and dry condition and shall be suitably packed according to approved trade practice, unless otherwise specified.

13. LAMINATE

13.1 Laminate shall be of the brand, catalogue surface finish, colour as specified and approved by the Owner / ENGINEER IN-CHARGE. All laminates shall be in finish as per design intent unless mentioned otherwise. Laminates shall confirm to IS: 2046:1969, IS: 2046:1995 or latest.

13.2 Test Samples collected randomly shall be subjected to the test specified as under:

The test for laminate to be conducted on site:

i) Proper Moisture Balance:

The face and back of the laminate as well as the substrate should be conditioned together in some environment for 48 hrs. before fabrication.

ii) Stain Resistance:

Subject to tea, coffee, milk, wine, vinegar, citric acid and acetone for 16 to 24 hrs. at room temperature. To prevent evaporation, each sample be covered with a sheet of glass. At the end of the test period, each sample be washed in water in alcohol solution & the surface inspected for the de lamination.

13.3. Pre-Laminated Board with Post Formed Edges.

Post-formed laminated surface shall be absolutely even and shall show no deformities as per IS:2046. 12mm, 19mm & 25mm thick exterior grade MDF boards shall be used as per specifications. 0.8mm thick post forming laminated sheets shall be used.

13.4 Visual tests for post formed laminate shall indicate the following:

- a) Substrata was prepared for smooth and continuous edges.
- b) Uniform application of adhesive without any gaps as per manufacturer instructions.

An appropriate moisture balance shall be maintained between the laminate and the substrata prior to fabrication. The face and backing laminates and the substrate should be conditioned in the same environment for 48 hours before fabrication. The recommended conditioning temperature is 75°F (24°C), and recommended relative humidity is about 45%.

14 BOARDS

14.1 All MDF board where specified shall be Phenol bonded Exterior Type BWP Grade conforming to BIS: 12406:1989 and IS: 12406:1988, the work shall be carried out as per the manufacturer's specifications.

MDF Board shall be a reconstituted wood panel, manufactured from superior quality single species of Pine wood fibers and bonded with high quality synthetic resin.

14.2 CALCIUM SILICATE BOARD

Ramco Hilux Calcium Silicate Board is a unique building board manufactured with technical know-how from A & A Material Corporation of Japan using state-of-the-art technology. It is made from Siliceous and Calcareous materials reinforced with cellulose fibers. The board is 100% asbestos-free.

Environment-friendly not affected by water asbestos-free termite-proof thickness-12mm.

Applications Ceiling, Partitions and paneling.

14.3 GLASS & MIRROR

MIRROR

Mirrors shall be fabricated from clear float glass free from bubbles, waves and air holes and other defects, and should have precise flatness and distortion free surface ideal for quality mirror, the quality and finish should be as shown in the drawings and schedules, unless otherwise specified by the Owner / ENGINEER IN-CHARGE.

The cut edges shall be straight and free from chips or any other damages. All edges of mirror shall be beveled, half an inch wide unless specified in the drawings or schedules.

Adhesive

Adhesives shall be as recommended by the Silicon manufacturer. For mirror not held with wooden beading, 3M Birla Adhesive tape shall be used and using not less than 2 square inches of the adhesive tape area for every 10Kg weight of the mirror and used in accordance with the manufacturer's recommendations.

14.4 GLASS

The glass shall have uniform refractive index with precise surface flatness and provide excellent through-vision images. It should exhibit superior visual qualities that provide bright clear through images.

All glass is to be of approved quality and manufacturer, and be free from bubbles, smoke waves, air holes and other defects.

Wherever the term etching is used it shall mean creating, neatly, geometrical patterns on glass with chemical complete to the satisfaction of the Owner / ENGINEER IN-CHARGE.

For each type of etching pattern sample pieces shall be produced till the complete satisfaction of Owner / ENGINEER IN-CHARGE. The contractor will be expected to continue to produce modified samples for which no claim will be entertained.

Irrespective of its use all edges of glass exposed to view/touch shall be machine cut and polished.

For full height partitions, all glass joints shall be sealed with clear silicon paste of international quality as per manufacturers' recommendations. The installer shall be firm experienced in the application of materials required. It shall be executed by the company's approved applicator.

Acid washed glass shall mean cleaning the chemically etched / frosted glass with acid after the procedure of frosting / etching are over to render it free from all sorts of stains and render it stain proof.

Delivery

Glass shall be delivered to site in cut sizes, in **packages bearing the manufacturer's name** and/or trademark. The type, quality, thickness or weight of the glass is to be clearly marked on the package.

SILICON FOR SEALING THE EDGES AND GAPS (WINSIL 20)

All silicon shall be Conform to the following specifications. The work shall be carried out as per the manufacturer's specifications.

UNCURED PROPERTIES

Form	Paste
Colour	Translucent/White/Black
Specific Gravity	1.0
Application rate, g/min	200
Full cure, days 1-5	as per manufacturer's recommendation (depending on temp., RH and bead thickness)

CURED PROPERTIES

Hardness, shore A	22
Tensile strength, Mpa	1.5
Elongation at break, %	450
Movement accommodation	± 25%

14.5 False Ceiling

Modular False ceiling tiles of size 600 x 600mm having the following specifications Tiles to be Soft Fibre Board tiles and shall be approved make Optra Pebble Micro look Edge tiles, of size 600mm x 600mm, of approved shade and colour. Tile shall render a NRC level of 0.9. RH value of 0.95, Light Reflectance of more than 75%. Suspension system shall be manufacturer specific double rotary stitched (Trulok or equivalent) Silhouette reveal profile grid system with 15mm wide flanges incorporating 3 or 6mm central reveal of all black colour. Silhouette main runners and cross tees to have mitred ends and (Birds' mouth or equivalent) profiled notches to provide cruciform junctions. Installation to comprise of main runners spaced at 1200mm centres securely fixed to the structural soffit by approved hangers at 1200mm maximum centres and not more than 150mm from spliced joints. The last hanger at the end of each main runner should not be greater than 600mm from the adjacent wall. Flush fitting 1200mm long cross tees to be interlocked between main runners at 600mm centres to form 1200mm x 600mm modules. Cutting cross tees longer than 600mm require independent support. 600mm x 1200mm modules to be formed by fitting 600mm long flush fitting cross tees centrally between the 1200mm cross tees. 1200mm cross tees to have central (Birds' mouth or equivalent) notches to facilitate flush fitting of 600mm cross tees. Perimeter trim to be (Trulok or equivalent) manufacturer specific sized wall angle of approved colour, secured to walls at 450mm maximum centres. Suspension system to be fixed to the structural soffit by Butterfly clip hangers, suspension wires & anchor fasteners as per the manufacturer's specification.

14.6 Glass Block shall be installed as under:

For effective joint, the maximum width for outside be 15mm & minimum 6mm for inside.

Mortar for laying glass blocks to have 1 part Portland cement, 1 part lime and 4.5 to 6 parts of fine sand and iron compounds. For white joints white Portland cement and silica sand shall be used. Mortar shall be prepared in quantities that can be used with curved in ½ to 1 hour.

Finishing mortar for surfaces not exposed to rain shall consist of white cement and silica or white marble powder, otherwise waterproof agent shall be added. Polysulfide or silicon sealing compound shall be applied to the connection between concrete structure and glass block or to the expansion joint.

14.7 Flush Door

All Flush doors shall be of BWP (Boiling waterproof Grade). Flush doors shall be made of solid, high density block boards. Flush doors shall be pretreated for borer & termite. Flush-Lumber and veneer shall be Treated with preservatives Glue line shall be fortified with non-reachable organophosphorus compound.

FINISHED PANELS SHALL BE TREATED WITH PRESERVATIVES

Moisture Content (%)	10-12
Flatness of shutter (twist, cupping & wrapping)	Deviation not more than 1mm
Local planeness (surface smoothness)	Deviation not more than 0.5mm
Impact indentation	Not more that 0.2mm by a weight of 0.5kg
Flexure resistance (residual deflection)	Not more than 2mm Edge
Residual deflection Lateral buckling	Loading Not more than 0.2mm Not more than 1.5mm
Shock resistance	No visible damage after 25 blow of 5 kg
Buckling resistance Initial deflection Residual deflection	Not more than 40mm b) Not more than 5mm
Slamming of the shutter	No visible damage after 50 Impacts of 15kg
Misuse of shutter	No permanent deformation after the test
Varying humidity (adverse weather condition) End immersion	Dimensional changes with 5% No delimitation after Immersion
Adhesion of plies	Excellent
Glue adhesion	No delimitation of glue line
Screw holding strength (kg)	>125
Preservative treatment	
* Specific gravity	0.60
* Water absorption	<1%
* Nail holding strength	>50

14.8 FLOORING

FLOTEX ROLL 150 & 200

PRODUCT SPECIFICATIONS	FLOTEX 150	FLOWTEX 200
Construction	Flocked Carpet	Flocked Carpet
Pile Material	100% nylon 6.6	100% nylon 6.6
Backing Material	Polyvinyl Chloride	Polyvinyl Chloride
Roll Length	40 Linear Metre rolls (60 m ²)	30 Linear Metre rolls (60 m ²)
Roll Width	150 Cm	200 cm
Total Thickness	4.4 mm (150 1765)	4.3mm (ISO 1765)
Total weight	1882 g/m ² (ISO 8543)	1856 g/m ² (ISO 8543)
Overall Fiber Length	2mm apprx.	2mm approx.
Installation Must be fully adhered to a smooth, dry, clean & even sub floor, using an approved adhesive. It is recommended that reference is made to the Bonar Floor' FLOTEX Installation Brochures.		

Test			Result
Acoustic Tests	Impact noise Noise absorption	ISO 140 Pt 8 ISO 354	LW = 20-22db Noise reduction co-efficient = 0.10 - 0.11
Appearance Retention	Hexapod Castor chair test	ISO / TR / 10361 EN 985	Meet requirements of wear class 4 of EN 1307 R = 3.4 suitable for continuous use (minimum requirement in EN 1307 is r=2.4)
Color Fastness Test	to dry rubbing to wet rubbing to Light - to Water	EN ISO 105 x 12 EN ISO 105 x 12 EN 105 B02 EN ISO E01	4-4.5 (grey scale reading) 4-4.5 (grey scale reading) All Color ways meet minimum standard of 5 to EN 1307 requirements. All color ways meet requirements standard of 4 to EN 1307 requirements.
Dimensional Stability tests		EN 434	Max. 0.4 % change in dimensions
Fire Tests	GB Hot metal nut D Radiant Panel GB Marine Fire Test F Italian Fire Class USA US Radiant Panel	BS4790/ 5287 DIN 4102 IMO A 653/ (16) CSE RF 2/ 75 /A & RF 3 / 77 ASTM E 648	Low radius of efforts of ignition Class B1 Low frame spread material Class 1 Class 1
Wear Test	Lisson treated	EN 1963	Meets requirements of wear class 4 of EN 1307

14.9 BLINDS VERTICAL

14.9.1 ROLLER BLINDS

A) FABRIC

The fabric shall be woven from a very fine glass fibre yarn coated with a specially formulated plastisol. The fabric shall be so waved to provide view of the other side of the blind with an openness factor of 3%. The fabric shall have a composition of 36% glass fibre 64% plastisol, weigh 400 gms per sq. mtr and shall be 0.45 mm thick. The fabric shall hang straight and flat without buckling or distortion and the edges shall remain straight and free of raveling. Fabric shall be flame retardant and fade resistant.

B) MOUNTING TUBE

Mounting tube shall be of extruded Aluminium alloy with a minimum wall thickness of 1.0 mm duly anodized for long life.

C) INSTALLATION BRACKETS

Brackets shall be of tomized steel powder coated to give superior finish. Bracket shall accommodate overhead, side or face mounting with clutch assembly on either end of roller.

D) BOTTOM WEIGHT

Bottom of the blind shall be provided with Aluminium beads powder coated in a color matching to the fabric. The beads shall be threaded in a nylon string and shall maintain constant distance between the individual vertical blinds.

14.10 POLYURETHANE PAINT (MATTE FINISH)

Polyurethane matte finish shall confirm to following Technical data.

Colour	Clear
Volume Solid	57 +/-3%
Typical Thickness	50 – 70 microns (2-3mils) dry
Theoretical Coverage	10-12 sqm. At 15 microns d.f.t. and stated volume solid
Method of Application	Airless spray, conventional spray
Mix Ratio	4.0 parts :1.0 part by volume
Thinner	As per manufactures specifications.

14.11 WINDOW FILMS:

The window film shall be scratch resistant coated and shall be applied by the manufacturer's authorized person / agency only. The film shall comply with the following specifications:-

100 Micron High Performance Film

Thickness	4Mil
Visible Light Transmittance	39%
Glare Reduction	57%
Total Solar Energy Rejection	50%
Physical Properties	
Tensile Strength (Kg/Cm ²)	> 1900
Safety Classification - BS6206	Class A

14.12 FINISHES

14.12.1 Melamine Finish:-

Timber works shall be finished by the applications of two coats of an acid catalyzed clear lacquer (melamine) wherever it is indicated in the drawings. The Finish shall be a satin, semi-gloss finish 7 shall be carried out as follows.-

The base shall be sand papered to desired finish & coated with a color tinge to give it shade. This shade shall be sealed with a coat of spirit finish.

After the base, first coat of lacquer shall be applied evenly by a soft cloth or by spray to give an even coat to the veneer surface.

After the 1st coat has fully dried, the lacquered surface shall be rubbed down in the direction of the veneer grain with very fine glass paper and left completely smooth & clean before the second coat is applied.

When the 2nd coat of lacquer is fully dried, the surface shall be rubbed down in the direction of veneer grain very fine wire wool dipped in a petroleum – based wax to give lubrication.

Twenty for hour after completion of this process the lacquered veneer surface shall be finished by burnishing with a soft cloth to an approved finish.

14.13 Paint & Polishing:-

All material required for the works shall be of a specified & approved manufacturer, delivered to the site in the manufacturer's name or trademark with a description of contents & color. All material to be stored on the site works.

Renovation of Classrooms at K Cluster at IIMB

Spray painting with approved machines will be permitted only if prior written approval has been obtained from the IIMB. No spraying will be permitted in the case of neither priming coats nor where the soiling of adjacent surface is likely to occur. The nozzle and pressures to be so operated as to give an even coating throughout to the satisfaction of IIMB. Thinning of paint made for brushing will not be allowed.

Wood preservation shall be Slingarm or any other equal / approved impregnating wood preservative & all concealed wood work shall be so treated.

All brushes, tools pots kettle, etc., used in carrying out the work shall be clean & free from foreign matter & are to be thoroughly cleaned out before being used with a different type of classes of materials.

All iron or steel surface shall be thoroughly scrapped & rubbed down with wire brushed & shall be entirely free from rust, mill, scale, etc., before applying the priming coat.

Surface of previously painted metal which are to be repainted shall be cleaned and flatted down as described in surfaces of previously painted woodwork. Minor areas of defective paint and any rust / loose scales shall be removed completely by chipping, scraping & wire brushing back to the bare metal & touched in with primer as described.

Surfaces of new woodwork which are to be painted are to be rubbed down knotted & stopped to the approval of the IIMB.

Surface of previously painted woodwork which are to be repainted shall be cleaned down with soap and water, detergent solution or approved solvent to remove dirt, grease, etc; whilst wet the surfaces shall be flatted down with a suitable abrasive & then rinsed down and allowed to dry. Minor areas of defective paint shall be removed by scraping back to a firm edge and the exposed surface touched in with primer as described and topped with putty. Where woodwork has been previously painted or polished and is to be newly polished, the same shall be prepared with scraping, burning off or rubbing down.

14.14 P.O.P PUNNING:-

a) General

Plaster of paris punning (plaster) is generally applied on already cement plastered surface to give it a smooth and even surface.

b) Preparation of surface

Project burrs of mortar existing on cement plaster shall be removed. The surface shall be scrubbed clean with wire brushes. In addition and plastered surface shall be pock marked with pointed tool, at spacing of not more than 4cm. C/C and depth of pock to be approx. 3 mm. This is to ensure a proper key for the plaster. The surface shall be cleaned of all oil and grease marks etc.

c) Plaster of Paris

The plaster of paris shall be of semi-hydrate variety calcium sulphate. Its fineness shall be such that when sieved through a sieve of ie. sieve designation 3.35 mm for 5 minutes, after drying the residue left on it shall be not more than 1% by weight. It shall not be too quick setting. Initial setting time shall not be less than 13 minutes.

d) Application

The material will be mixed with water to a workable consistency. Plaster of paris shall be applied directly on the wall plasters in suitable size panels and finished to a smooth surface by steel trowels. The plaster shall be applied in such a manner that it fully fills the gaps, and the thickness over the plastered surface is as specified in the description of the item. The finished surface shall be smooth and plane, slopes or curves as required.

14.15 GRANULAR SURFACE TEXTURED APPLICATION

a) Surface textured finishes shall be applied directly on concrete surface or P.O.P. surface or Cement-Badarpur Sand plastered surfaces which ever is applicable.

b) Any surface preparation before the application as also the final applications of the finishing coats itself shall be done as per the manufacturer's specifications.

15.0 FINISHES

Melamine Finish:

Timber works shall be finished by the applications of two coats of an acid catalyzed clear lacquer (melamine) wherever it is indicated in the drawings. The finish shall be a satin, semi-gloss finish & shall be carried out as follows:

The base shall be sand papered to desired finish & coated with a color tinge to give it shade. This shade shall be sealed with a coat of sprit finish.

After the base, the first coat of lacquer shall be applied evenly by a soft cloth or by spray to give an even to the veneer surface.

After the 1st coat has fully dried, the lacquered surface shall be rubbed down in the direction of the veneer grain with very fine glass paper and left completely smooth & clean before the second coat is applied.

When the 2nd coat lacquer is fully dried, the surface shall be rubbed down in the direction of the veneer grain with very fine wire wool dipped in petroleum-based wax to give lubrication.

Twenty-four hours after completion of this process the lacquered veneer surface shall be finished by burnishing with a soft cloth to an approved finish.

PARTICULAR SPECIFICATIONS

GENERAL:

All materials used will be the best of its kind and confirm to the technical specification and list of approved makes. Wherever the materials are borne on ISI certification, these shall bear ISI marks irrespective of whether such reference has been made or not. The contractor carrying out these works shall be responsible for providing all labour, plant tools, materials and all articles necessary for proper execution and completion of works of highest standards.

The contractor shall carefully acquaint himself with this specification, coordinate the same with the technical specification to determine his contract obligations for the

Renovation of Classrooms at K Cluster at IIMB

execution of the various items of work in accordance with best engineering practice. Deviation shall not be permitted unless specifically approved by the Owner/ENGINEER IN-CHARGE in writing.

16 WORKMANSHIP

All work shall be true to level, plumb and square and the corners, edges etc. in all cases shall be unbroken and neat.

Any work not confirming to specification or workmanship shall be rejected and the same shall be rectified or removed and replaced with work of the required standard of workmanship at no extra cost.

Rates quoted for the items shall be valid for carrying out of the item of work at any and all floor hides.

Lift may not be used for labour or for carrying construction materials. Non availability of lift shall not be a criterion for any extra payment/ delaying execution of work.

17 ACCEPTANCE CRITERIA:

Furniture: These shall conform to drawings in all details. No unsightly nail marks etc. shall be permitted. Plywood grains shall be matched to give uniform and pleasing appearance.

Cupboard Shutters: These shall operate smoothly. Locks, catchers and bolts shall engage securely.

Drawers: These shall operate smoothly and have back stops to prevent them from being pushed too far. Locks shall engage securely. All drawers shall be provided with sliding rails.

18 CARPENTRY

Definition. Scope of Carpentry work

The definition of carpentry work shall be deemed to include fixing clips, blocking, grounds, fittings, sub frames, partitions, paneling, workstations, cupboards, consoles, rough frames and wood farming members. This shall also include the supply and fixing of all hardware and fixture as shown in the drawings or specified in the schedule of quantities in this tender.

General

The quoted rate for each item of work shall also include for the following irrespective whether it has been mentioned or not in the description of the item without any extra cost.

All exposed surfaces of wood (any variety) shall also have necessary coat of wood primer/ putty and paint/ melamine polish etc. Unless otherwise specified in the tender.

Installation

The Contractor shall adhere to the following instructions.

TIMBER:

- i) The carpentry, timber shall be fixed with nails, spikes, bolts, screws, hangers, stirrups, anchors, tiles or any other accessories which are suitable to develop the full strength of the member which they support or to which they are supported or to which they are attached as directed.
- ii) Carpentry timber where fixed to solid masonry or concrete shall be secured with expansion bolts or other positive methods of mechanical fastening.
- iii) Fixing by means of wooden plugs will be permitted only where it is required.

LAMINATE:-

Plastic decorative laminate shall be of the brand, catalogue no. and color indicated wherever not indicated it shall be as per decision of the Owner/ENGINEER IN-CHARGE. Plastic laminate shall be of thickness 0.8mm, 1.0mm and 1.5mm as specified in the tender.

- i) Plastic laminates shall be veneered to mounting surface with an approved adhesive, used strictly in accordance with the manufacturer's instructions.
- ii) Laminate shall not be fixed to timber with moisture content more than 12% or at a temperature of less than 15 degree centigrades. The laminate shall be applied only to close grained plywood to ensure a smooth ripple free surface, it shall not be applied to open grained plywood such as fir plywood. But jointing of laminates shall be minimized by using longest available lengths where required and all butt joints shall be perfectly flush and sealed or a uniform groove be left in between wherever mentioned. Grain direction of wood grain laminated sheeting shall be as decided by the owner.
- iii) Grain directions of laminates shall be shown in working drawings. In case it is not nor shown these shall be decided by owner/ ENGINEER IN-CHARGE.

No surface sanding of laminated plastics will be allowed.

DECORATIVE TIMBER VENEER PLY:

- i) Timber veneer shall be of timber species shown on drawings. Veneers are to be kept in sequences as they are being cut from wood and supplied as such to the site for accurate matching of grain.
- ii) Adhesive to be used for fixing veneers shall be in accordance with the manufacturers recommendations.
- iii) If adhesives other than contract type are required then bonding shall be under pressure.
- iv) The contractor shall submit one sqft. Sample of each veneers tile (finish to the desired finish) for approval.
- v) Sheet materials brought at site should in stored flat, with sufficient support to prevent bowing and warping and to prevent damage to edges and corners. Sheet materials shall be protected from weather and kept of the ground and in dry, well ventilated conditions.

SHOP DRAWINGS JOINERY:-

The contractor shall submit for approval shop drawings for all joinery before commencing the relative job.

Shop drawing shall relate to site measurements and show in detail the construction of the very spot of the work. The method of jointing the thickness and type of material,

Renovation of Classrooms at K Cluster at IIMB

the finishes to be applied to the various surface, details of anchoring joints, welts, fastening and all other relevant information as shall be applicable.

DELEVARY AND STORAGE-SHOP FABRICATED ITEMS

Shop fabricated items shall not be delivered to the site of work that until the site is ready for such installation and building is full dry and shall be cordend or otherwise protected while in transits. Installed work shall be protected against soiling or damage. Damage or soiled items shall be made good or replaced at the contractors own expense and to the satisfaction of the ENGINEER IN-CHARGE.

19 JOINERY

Joinery shall be carried out strictly in accordance with the drawings. Where joints are not specifically indicated, recognized forms of joints shall be used after approval of ENGINEER IN-CHARGE. All furniture shall be of contract polity and suitable for commercial use.

ACCEPTANCE CRITERA

Framing timber and other works shall be close fitting with proper wood joinery, match accurate standard levels and rigidly secured in place.

SHOP DRAWINGS

Contractors shall submit shop drawing or moulds/ patterns for approval of ENGINEER IN-CHARGE prior to production the moulds are patterns should be necessarily be of actual size.

FINISHED SAMPLES

A sample of every item of furniture, including its parts shall be submitted for approval before bulk order is placed are manufacturing commences. Approved samples shall be used as standards of finish and workmanship

FINISHING WORKS: POLISHING AND COATINGS

The contractor shall apply all materials, labour, tools, scaffolding and other equipments necessary for completion and protection of all paintings, polishing, coating and other finishing works.

Painting, as herein specified shall be applied to all surfaces requiring paint through out the interior building as given in the schedule of finishes or elsewhere. Storage material shall be only in a single place approved by ENGINEER IN-CHARGE.

20 MATERIALS

All materials (except those for Melamine finish) use in the work shall be of approve make. Paint shall be ready mixed. Oil paint, varnishes, enamels, lacquers, stains, paste figure, distempers and other materials must be delivered to job site in the original containers, with the seal unbroken and labels intact. Each container shall give the manufacturer's name, type of paint, colour of paint and instruction of the using. Thinning shall be done according to the directions. Remove rejected materials immediately from the premises. Storage of materials shall be only in a single place approved by ENGINEER IN-CHARGE.

21 WORKMANSHIP

The workmanship shall be the best possible, all materials evenly spread and smoothly flowed on without runs or sags, using good quality tools, brushes etc. as required. Only skilled painters shall be employed. A properly qualified foreman shall be constantly on the job whilst the work is proceeding. All work where a coat of material has been applied must be inspected and approved before application of the succeeding specified coat. Each under coat shall be distinctly said of the approved colour.

Before painting, remove/ protect hardware, plates and similar items or provide ample protection to all such items. Upon completion of each stage, replaced all fixtures removed. Remove doors, if necessary to paint bottom adjust. Use only skilled workman for the removal and replacement of above item.

22 CONCEALED SURFACES:

All interior and exterior trim, door paints, shelving, cabinet work shall be thoroughly and carefully back painted on all surfaces and adjust which will be concealed when installed. Such surfaces shall be clean, dry, sanded and properly prepared to revive the paint. Top, bottoms and adjust of door shall be finished same as the rest of the door.

23 PROTECTION AND CLEAN:

Upon completion of work, remove all paint and varnish spots, from floors, glass and other surfaces. Any defaced surfaces shall be cleaned and the original finish the restored. He shall remove from the present premises all rubbish and accumulated material and shall leave the premises in clean, orderly and acceptable conditions. The contractor shall be responsible for protection of other work s at site which are likely to be spoilt during his work procedures.

Surfaces of old woodwork required to be painted are to be cleaned down to remove dirt the grease etc. Minor areas of defective paint shall be removed by scraping back to a firm edge and the exposal surface touched in with primer as described and stopped with putti.

Where woodwork has been previously painted or polished and is to be newly polished, the existing finished shall be completely removed by scraping, burning off or rubbing down as required.

Surfaces of previously painted metal which shall be painted are to be cleaned down and flatted down as described in surfaces of previously painted woodwork. Minor areas such as defective paint and rust and loose scales shall be removed completely by chipping, scrapping and wire brushing back to the bare metal and toughed in with primer as described. For all woodwork white or pink wood primers are to be used.

24 MELAMINE (POLYURETHENE MATTE) WOOD:

Direction to use on proper success preparation is the is a prerequisite for optimum results. The major operations involved in surface preparation, sanding, fitting and staining.

SANDING:

Sandpaper the wood surface with flint paper no 100 and then the emery paper No. 220 along with the grains. Brush off loose dust along the grains.

FILLING:

Make PU primer putty using appropriate color powder and apply the same by brushing. When the surface is completely dried sand the same along the grains. Remove excess filler along the grains by putty knife. Allow drying for 3-4 hours at room temperature. The hard dried surface is then sanded with flint paper No.100 and then with No 320 along the grains. Wipe of loose dust completely.

STAINING:

To match the field surface with wood, staining has to be done. The surface can be stained to any desired shade like walnut, Mahogany, Sesame, rosewood, Raw sienna etc. make a fine paste of any of the above powder with mineral turpentine. Apply with a cloth. Allow it to dry for 20 minutes. Wipe the surface with a dry cloth thoroughly to remove excess staining.

LACQUERING:

Mix both the resin & hardener as per the specification. Mix the constituents and shake well for at least 5 minutes. Keep it for another 5 minutes. Filter the solution through a muslin cloth 7 spray (Note: both components are to shake well before using so that all settled particles from homogenous mixture). Allow the coated surface to dry at room temperature for three to six hours. Rub the first coat using sand and emery paper No.320 wet with water. Wipe with cloth. Give the 2nd coat by spray allow drying at room temperature preferably in a dust free atmosphere

TIMBER VENEERS:

Timber veneers shall be of the timber species shown in the drawings. Veneers are to be kept in sequence as they are being cut from wood and supplied as such to the site for accurate matching of figuring.

Adhesive for use in fixing veneers shall be in accordance with the manufacturer's recommendations.

In adhesive other than contract type is required than bonding shall be in presses.

When using timber veneers, a sheet of similar material and thickness as the face veneers shall be applied to the back face, unless otherwise specified. The moisture content of both the veneers shall be the same.

The veneers shall be finished as specified and shall be equal or superior quality to that laid down in latest addition of BIS :1659 or as approved.

PLYWOOD / PLYBOARDS:

Plywood shall be a product of a balanced construction made up of plies assembled by gluing, the chief characteristic being the crossing of alternate plies to improve the strength properties and minimize movement in the plane of board.

Plywood shall be of approved quality close grained plywood suitable for veneering, painting or bonding plastic laminate. It shall be a resin bonded and boiling waterproof. Exposed edges shall be finished with an edge strip teakwood / steam beach wood / rosewood, tongued and grooved and grooved and glued or as detailed.

The manufacturer and reference for plywood shall be subject to approval. The thickness shall be in accordance with the drawing.

25 FURNITURE:

GENERAL REQUIREMENTS

This section of the specification shall be read in conjunction with the Drawings and other contract documents, and other sections of specifications which shall be deemed to be complimentary to one and another, in particular the technical specifications, carpentry & joinery, painting section. The Contractor carrying out this work shall be responsible for providing all labour, plant, tools, materials and every thing necessary for the proper execution, completion and maintenance of these works.

RATES:

The basic rate of fabric is given in the schedule of quantities for respective items. The difference in basic rate after approval of samples shall be adjusted accordingly with the Owner/ENGINEER IN-CHARGE.

Unless otherwise provided in the description of various items of the work. The rates tendered by the contractor shall be for complete items of work covering all materials, labour, carriage, and royalties. Fees, rents, octroi, wastage tools plant, equipment transport, temporary constructions overhead charges profits as well as general liabilities, obligations and risks arising out of the conditions of contract and carrying the work in parts or complete and shall apply to all heights all floors' depths, leads and lifts. No extra charges whatsoever as a consequence of any misunderstanding or otherwise shall be allowed.

All loose furniture items brought to site shall be kept in wrappers (polythene) sheets to avoid any damage to the item. All materials to be insect and vermin free.

QUALITY

All furniture shall be of contract quality and suitable for commercial use.

DIMENSIONS

All wood sections are approximate and are given for reference to prepare the sample. The size of sections are likely to vary $\pm 15\%$. No deduction or enhancement of rate shall be considered on this account. Figured dimensions shall be taken in preference to scaled dimensions in all cases. Before commencing any works, the Contractor shall verify all measurements on the site.

METAL FURNITURE

Where metal legs, frames and the like used, these shall be welded, brazed, bolted or riveted as required, finished surface welding, brazing, and riveting shall be well grounded so that no evidence of this is apparent on the final finish of the metal.

All legs of case or cabinet furniture, whether of wood or metal shall be provided in nylon glides or castors unless otherwise shown in the drawings.

Metal furniture is to be fabricated from solid sections to dimensions suitable for stability and rigidly in them with context of contract furniture. All metal parts shall have a protection coating to guard against pitting, rusting or peeling in high humidity climates. Rubber grommets shall be supplied as a cushion between metal base and specified tops. For powder coating only pure polymer shall be used.

FINISH

Finishes shall be fully in accordance with the drawings and schedules.

Where timber is in natural finish, pieces shall be matched for color and grain before assembly. Where timber is stained the stain shall be matched throughout UPHOLSTERY

Where the upholstery fabric is patterned, upholstery fabrication is to commence until the contractor has received clear instruction concerning the direction of the pattern and the method of its joining. Upholstery will be approved.

Workmanship with non-sag, springs, coiled springs, padding and filling as specified. Covering fabrics will be sewed, tufted and corded as shown on the drawings or in schedule.

All upholstery material is to be treated to be soil resistant and proof submitted to the Owner/ENGINEER IN-CHARGE with warranty cards of the vendor.

Sofa & Chair seat springs shall be non-sag and of superior quality (10 no wire)
All jumping springs shall be securely tied with dori thread.

HARDWARE

Hinges, locks, latches, door handles, nails, etc., shall be as specified or as approved substitute equal or be better than the specified.

JOINT & ADHESIVE

All joints shall be standard mortise and tenon dowel, dovetail, cross halved, tongued & grooved or rebated. Nailed butt joints will not be permitted. Where mortise & tenon joints are used tenons shall fit the mortise exactly. Adhesive shall be as approved from carpentry and joinery. Lap joints with glue shall be permitted in wood skirting. The designer may require these joinery and joints to be accentured in various components. Joints shall be allowed only as shown in the drawings. No joint shall be allowed in a structural member of the furniture such as legs, bracing members etc.

FASTENINGS & ZIPPERS

Screws, nails etc. shall be of standard iron or wire. Pillowcases shall have concealed non rusting zippers for easy removal of casting and cleaning. All rearms must be double safety shifted with quality matching threads.

CUSHION VENTS

Cushion vents shall be made in the back or underside of all seat cushions in sufficient number to allow air to escape easily and prevent torn seams.

STORAGE, PROTECTION, DELIVERY & INSTALLATION OF FURNITURE & FURNISHING ON COMPLETION

Wherever and whenever required all items of loose furniture shall be installed in the positions shown on the drawings, during period inspections (if desired by the owner/ENGINEER IN-CHARGE) and completion. All expenses towards transportation (cartage etc. shall be borne by the contractor).

The contractor shall provide storage, protection and guard all fixed items and loose items of furniture, textures, fittings and all other furnishing from dust, fire damp, theft or any other damage until the date of handover of the completed works.

The contractor shall make his own investigations to guard against local sources of attack and damage and take all necessary precautions for protection. On the completion of the installation of all work the Contractor shall leave all work clean and perfect. Visual inspection Before covering up, Timber shall be treated with approved wood preservative before use. Before starting the carpenters work, the contractor shall have the rough timber approved by the owner/ENGINEER IN-CHARGE.

26 GLASS & MIRROR

DELIVERY & STORAGE

Delivery of materials shall match the approved samples, packed materials shall be delivered in the original, unopened, labeled containers of the manufacturers clearly marked with their name and brand.

Mirror shall be stored, while awaiting installation, in a dry, well-ventilated location at a constant temperature maintained above dew point.

Handling of mirror shall be kept to a minimum. The mirror shall be protected against soiling, condensation, etching and the point.

MARKING ON MIRROR

Manufacturer's job of marking on mirror glass and adhesive for manufacturer's labels, shall not be alkaline but shall be neutral or slightly acidic.

CUTTING MIRROR

Cutting of mirror shall be in accordance with the site measurements or approved dimensions. All edges shall be smoothed before fixing. No chipping, starring and otherwise visible imperfection around cut edge shall be accepted.

DRILLING

All drilling of holes shall be carried out at stage of fabrication. No chipping, starring and other visible imperfections around holes will be accepted.

FIXING

Panels shall be securely fixed with screw or Z clips at minimum 600mm centres horizontally and 900mm centres vertically.

Mirrors shall be fixed to backings by adhesive (non-alkaline) or special fixing as shown on the drawings or otherwise specified.

Screws shall be brass with collars and screws on domes unless otherwise required.

FINISH OF FIXINGS

All visible metal fixings shall be of approved finish to match mirror finish and colour.

JOINTS

All adjoining sections of mirrors shall be separated by paper thin joints.

CLEANING

When directed by the Owner/ENGINEER IN-CHARGE the contractor shall remove all markings and labels from mirror and wash the mirror with a mild, neutral or slightly acidic solution as recommended by the mirror manufacturer. Alkaline or abrasive agents shall not be used.

PROTECTION

The contractor shall be responsible for protecting all the fixed by him till handling over mirrors forming part of this contract. The contractor shall replace at his own expense any broken or damaged mirror caused through lack of adequate protection or care in installation or handling. All installed materials shall be left in perfect condition to the satisfaction of ENGINEER IN-CHARGE/Owner.

The Contractor shall make his own investigation to guard against local sources of attack and damage and take all necessary precautions for protection; all installed material shall be left in perfect condition to the satisfaction of IIMB.

COMPLETION

On completion of installation, the contractor shall all mirrors and fixings perfect to the satisfaction of the IIMB.

Modular Furniture : Manufacturing Specifications

Workstation: Workstation Table is made of MS Base structure of 50mm x 50mm & 50mm x 25mm Box sections with approved colour powder coating as per the approved drawing and details, using tubular sections/other sections with the 300mm raceway box below made up of 1.2mm thk Vertical, 1mm thk Horizontal and .8mm thk

Renovation of Classrooms at K Cluster at IIMB

Cover Plate on Both side with Powder Coated and Fixed with Hex Bolt and tubular section/other sections at the bottom level horizontally. Provision to run the cable from floor level at post to the raceway boxes and cutouts on raceway to mount outlets. Base shall be fitted with levelers.

Tabletop made of 25mm thick MR Plywood with approved Colour Laminate on both side as per the shape & drawing. Edges to be fixed with 2mm thick PVC edge banding tape and necessary cutout provision to be made for POP UP Box on the table top. The work surface shall be fitted on to the base frame with necessary spacers.

Modesty Panel Made of 16mm thk MR plywood finished with approved colour laminate on both sides. Surface edges to be finished 0 .8mm thk edge banding tape matching to laminate and these panel are fixed with proper clamps & screws.

Vertical support made of 16mm thk MR plywood finished with approved colour laminate on both sides. Surface edges to be finished 0 .8mm thk edge banding tape matching to laminate and these panel are fixed with proper clamps & screws.

Side Panel Made of 16mm thk MR plywood with combination of White Board Marker Laminate & approved colour design Laminate on both sides. Surface edges to be finished 0 .8mm thk edge banding tape matching to laminate and these panel are fixed with proper clamps & screws.

Privacy panels are provided common for both the person with below specification.

(a) Toughened Glass 12mm thk with 3M Vinyal Sticker on Both sides, fixed on partition brackets

(b) Magnetic Board 12mm thk MDF with GI on Both surfaces wrapped with fabric, fixed on brackets

(c) 12mm Sq Tube with 5mm thk Flat on Both side with 2.5mm thk Aluminium mesh and approved colour Powder Coated, fixed on brackets

(d) Board made of 12mm thk MDF with laminate on both side, surface edge .8mmthk edge banding tape fixed on brackets.

Three drawer unit: made of 19mm thick Commercial plywood for top, sides, bottom and front fixed with 0.8mm thick edge banding tape, 8mm thick comm Plywood for back and 8mm thick MDF for drawer bottom. All the external & internal surface to be finished with 1mm lamination. Drawers shall run in telescopic channel with 3in1 FMDL and Handles. . The unit shall have front mounted multi drawer lock, 100mm ht handles, casters, necessary hardwares etc. size: 450mm x 450mm x 680mm ht.

Storages : Made of 25mm thick plain particle board with post formed laminate for top, 18mm thick pre laminate board for verticals, horizontals [shelves & bottom] and shutters, 18mm thick PLB for back. All edges mechanically fixed with 0.8mm thick edge banding tape. The storage unit shall have open able shutters with necessary hardware viz., auto close hinges, 100mm ht handle, mp lock, tower bolt etc.,

SHOP DRAWINGS FURNITURES:

The contractor shall submit for approval shop drawings for all furniture's before commencing the relative job. Shop drawing shall relate to site measurements and show in detail the construction of the very spot of the work. The method of jointing the thickness and type of material, the finishes to be applied to the various surface, details of anchoring joints, welts, fastening and all other relevant information as shall be applicable.

TANDOOR SLAB FLOORING:

Tandoor slabs shall be of approved best quality, approved colour and generally confirm to relevant specification. The surface shall be even without any veins, cracks or flaws. The slabs shall be of selected quality, hard, sound, dense, homogeneous in texture, free from cracks, decay, weathering and flakes. The sample of tandoor slab shall be got approved from the Engineer-in- Charge before use on the work. The slabs shall be machine cut to the requisite dimension. The size of slab shall be such that minimum joints shall be provided in longitudinal and transverse directions.

MARBLE SLAB FLOORING:

The Marble should be Indian Marble stone slab. and free from all imperfections and injurious minerals that may interfere with appearance, strength, structural integrity and it's amenability to take good police. The colour /shade of the Marble shall be as specified in the relevant documents or as instructed by the Engineer-in-Charge. The thickness shall not be less than 18 mm.

DISMANTLING WORKS:

Dismantling and removing (in whole or in part) the existing structure together with salvaging, cleaning, handling and storing of all usable or valuable parts and materials and disposing of non- salvable materials and debris.

PROFORMA - A

UNDERTAKING LETTER

(Please submit in your letter head with date)

To

Chief Manager (Infrastructure)
Indian Institute of Management,
Estate Section
Bannerghatta Road,
Bangalore - 560 076

Work:

Dear Sir,

This has reference to your above Notice inviting the tender (NIT) published in your IIMB web site.

We hereby state that we M/s _____ have submitted the above tender documents duly filling at the appropriate places without making any alterations, corrections, omissions in the tender issued by the IIMB.

Signature & Name of the Bidder

PROFORMA – B

BIDDER BANK DETAIL FORM

(Please submit in your letter head with date)

Indian Institute of Management Bangalore
Bannerghatta Road
Bangalore – 560 076

Dear Sir,

I / We hereby request you to remit our payments to our bank account as per the details furnished below:

Sl.No.	Particulars	Particulars
1	Name of the Agency/Organization	
2	Complete Address	
3	Name of the Contact Person	
4	Contact Numbers E-mail id	
5	Savings /current account number	
6	Name of the Bank	
7	Name of the branch with complete address	
8	IFSC Code	
9	PAN Number	

Renovation of Classrooms at K Cluster at IIMB

I / we hereby declare that I /we are authorized to sign this form and that the particulars furnished above are correct and complete in all respects. If the transaction is delayed or not effected at all for reasons of incomplete or incorrect information, I /we shall not hold IIMB responsible.

Authorised Signatory:

Name:

Designation:

Date:

PROFORMA – C

DECLARATION LETTER

(Please submit in your letter head along with date)

To

Chief Manager (Infrastructure)
Indian Institute of Management Bangalore
Estate Section
Bannerghatta Road,
Bangalore - 560 076

Work:

Dear Sir,

Please find herewith enclosed the Technical Bid document comprising of Terms & conditions, General & Special Conditions and Safety Code relating to the works specified in the Technical Bid Document hereinafter set out and having acquired the requisite information relating thereto as affecting the Technical Bid, I / We hereby offer to execute the works specified in the said document with the labour/worker rates mentioned at Price Bid portion of Technical Bid Document and in accordance in all respects with the conditions, specifications, & instructions in writing referred to in conditions of Technical Bid Appendix to the form of Technical Bid, articles of agreement, general conditions of contract, appendix to the Technical Bid, annexures, safety condition, technical specifications, and in all other respects in accordance with such conditions so far as they may be applicable.

The document being read and understood all the contents of the Technical Bid Document do hereby accept all the Terms and conditions laid down in the said Technical Bid document and will abide by the same on acceptance and award of work.

Yours Faithfully,

FOR M/s _____

PROFORMA D

BIDDER CREATION TEMPLATE

(Please submit in your letter head with date)

Bidder Name	
PAN number	
GSTIN	
TAN Number	
Address	
Email Id	
Phone number	
Bank Name	
Branch Name	
BenefEngineer In-chargeiary Name	
Bank Account Number	
IFSC Code	
Organisation Type (whether Individual, corporation etc)	
Applicability of E-Invoicing (Yes/No)-(If no, please fill Proforma E)	

(The rows and columns can be adjusted by the bidder according to the length of the information).

PROFORMA E

(Please submit in your letter head with date)

Date:

The Chief Finance Officer
Indian Institute of Management Bangalore
Bannerghatta Road
Bangalore – 560076
GSTIN: 29AAAAI0405N1ZQ
PAN: AAAAI0405N

Sub : Declaration on non-applicability of e-invoicing provisions under GST

We, (name of the bidder), with PAN, having our registered office at....., hereby declare that our aggregate turnover as per Goods and Services Tax (GST) law in India is less than INR 10 crores and we are not required to comply with e-invoicing provisions under GST for generation a Unique Invoice Registration Number (IRN) and QR code.

Further, we also undertake that if the aggregate turnover of M/s. (name of the bidder), exceeds the current threshold or revised threshold notified by Government of India at any future date, then we shall issue documents in compliance with the GST provisions.

This statement is true and correct and we agree to compensate you for any demand, credit reversal, denial of refund, loss, interest or penalty imposed due to any incorrect declaration or non-compliance by us.

Thanking you,

Yours faithfully,
For (Bidder Name)

(Signature)

Name of the Authorized signatory
Designation
Contact no.:
e-mail ID:

PROFORMA F

(To be executed on Non Judicial Stamp Paper of the value of Rs. _____
within 15 Days issue of Work Order)

AGREEMENT

Articles of Agreement for "**NAME OF WORK**" ("Agreement") is executed on the <Insert Present date> day of _____ Two Thousand And _____,

Between

Indian Institute of Management Bangalore ("IIMB"), a body corporate and Institute of National Importance under the Indian Institute of Managements Act 2017 having its registered office at Bilekahalli, Bannerghatta Road, Bangalore- 560076, represented through its Director (hereinafter called "IIMB", which expression shall include its successors and assigns wherever the context or meaning shall so require or permit) of the One Part;

And

_____, an organization duly incorporated under the applicable laws of India and having its office _____, represented by its Proprietor _____ hereinafter called the "Contractor" (Which expression shall include its successors and assigns wherever the context or meaning shall so require or permit) of the **Other Part**.

IIMB, and the Contractor shall be individually referred to as "**Party**" and jointly referred to as "**Parties**".

Whereas

IIMB has, through the Tender dated _____ invited reputed contractors for executing the works in connection with "**NAME OF WORK**".

- The Contractor, being the successful contractor has been issued the Work Order dated _____ bearing number _____.
- IIMB and the Contractor agree to bind themselves on the terms and conditions hereinafter mutually agreed to.

Hence this Agreement is now made and entered into and both the Parties agree as follows:

Scope of Work: The Scope of Work shall be as per the stipulations contained in the Work Order bearing number _____ dated _____, and the terms contained in the Tender documents on "**NAME OF WORK**" dated _____. The approximate value of the project, as per the Work Order is Rs _____ (Rupees _____ Only) exclusive of applicable GST.

1. Term: Time is the essence of the Contract. The Contractor shall execute and fully complete all the works specified in the Work Order, i.e., within _____ from the date stipulated in the Work Order and in the manner and pursuant to the terms, obligations and conditions set forth herein and in the said Tender and Work Order.

2. Penalty for delay: In case the work is not completed in the manner mentioned above, and to the complete satisfaction of IIMB, the Contractor shall, without prejudice to any other rights and remedies of IIMB, pay a penalty of **minimum 1.0% to maximum 10%** of the value of the unfinished or balance of the work. IIMB shall decide the percentage of penalty after considering the unfinished or balance of the work at that point of time and the percentage of penalty shall vary for each week of such delay in completion of the work.

3. Payment Terms: In consideration of the work done under this Agreement, IIMB agrees to pay the Contractor at different stages as set forth in the Tender in that behalf. The Contractor shall be responsible for payment of all applicable Taxes on the works contract.

- i. The Contractor shall promptly raise an invoice to IIMB on the completion of work at each stage as per the Tender terms before the 10th day of the subsequent month, for the works completed in the previous stage.
- ii. IIMB shall pay such invoice within thirty (30) working days from the date of receipt of the undisputed invoice.
- iii. On receipt of the Final payments, the Contractor shall furnish a "No Demand Certificate" to IIMB.

4. Obligations of Contractor:

- a. The Contractor shall take all appropriate and reasonable efforts to complete the work at IIMB to the satisfaction of IIMB in a timely and effective manner.
- b. The Contractor shall comply with all the Terms of this Agreement.
- c. The Contractor shall be responsible for complying with all the applicable Laws and IIMB shall not be held liable for any default of the Contractor in this regard.
- d. The Contractor shall ensure that all employees, workers, consultants etc., engaged pursuant to this Agreement at IIMB are its employees. The Contractor shall be solely responsible for payment and provision to those employees and personnel of salaries, wages, allowances and all applicable benefits such as EPF, ESI under the applicable law for the time being in force.
- e. The Contractor shall complete the work to the satisfaction of IIMB as per the instructions of the authorized officer of IIMB.

5. Security Deposit (SD): 7.5% of the gross value of the bill will be deducted as security deposit from monthly bills. Such security deposit deducted from monthly bills, will be refunded at the end of defects liability period deducting the claims if any.

6. Earnest Money Deposit will be returned after completion of the defects liability period.

7. Insurance: The Contractor shall provide for adequate insurance cover to his employees. The Contractor shall ensure that the said insurance includes all liabilities, which would cover material and building damage, workmen's compensation, third party liabilities etc., (CAR Policy for the Contract Value). The Contractor shall produce evidence of insurance coverage for all above before submitting invoices for payment. Such Insurance Policy shall be obtained from a reputed insurer and in the terms approved by IIMB; or

Renovation of Classrooms at K Cluster at IIMB

If the Contractor has a blanket insurance policy for all his Works and the policy covers all the items to be insured under this Agreement, the Contractor may assign such policy in favour of IIMB

8. Indemnity: The Contractor shall be responsible for any accident and all compensation payable to anybody including contract labour employed by or out of the Agreement or arising out of and in the course of execution of this Agreement. IIMB shall not be responsible or liable for making any payment whatsoever, which is to be made by the Contractor. If for any reason IIMB is made liable to pay compensation for any accident arising out of and in the course of execution of this Agreement, the Contractor shall indemnify IIMB to the fullest extent of compensation awarded or ordered by any Authority.

In the event of the non-fulfilment in any respect of the said covenant's, terms, obligations and conditions on the part of the Contractor, the Contractor shall pay IIMB, all losses, damages, costs, charges and expenses, including legal expenses as IIMB may be directly or indirectly put to in consequence of such non-fulfilment by the Contractor.

9. Confidentiality: Both the Parties hereby undertake that under no circumstances whatsoever they shall disclose any of the Terms of this Agreement and all or any Confidential Information belonging to the other like financial plans, business plans, and others, declared confidential to which they might have access during the association with one another in terms of this Agreement, except to the extent that is already in public knowledge/domain. The Confidential Information as hereinabove detailed shall not be disclosed during the subsistence of this Agreement and thereafter for a period of five years from the date of termination for whatever reason.

10. Termination: If the Contractor fails to perform the work set out in this Agreement within the stipulated period of time or carry out the work to the satisfaction of IIMB, IIMB shall terminate the Agreement as a whole or a part thereof at the risk and cost of the Contractor, without prior notice.

11. Consequence of Termination: In the event of termination of this Agreement, the parties agree to promptly deliver all the deliverables applicable to the fullest extent conceived, created or developed prior to the date of termination.

In case of termination due to the material breach of the terms of this Agreement by the Contractor, IIMB shall get the balance work executed through a third party and recover from the Contractor all the additional costs incurred by and damaged caused to IIMB in procuring such services from any other third party.

12. Arbitration: In the event of any dispute arising out of or in connection with this Agreement, the Parties agree to resolve the disputes amicably, failing which the disputes shall be referred to Arbitration. The Arbitrator shall be appointed by the Director of IIMB. The venue of Arbitration shall be at Bangalore.

13. Applicable Law and Jurisdiction: This Agreement shall be governed and construed in accordance with the Indian Laws and subject to the exclusive jurisdiction of competent courts at Bangalore, India.

14. Miscellaneous:

a. **Relationship of Parties:** Nothing contained in this Agreement shall be construed as creating a partnership between the Parties or as deeming either Party as an agent or representative of or employee of the other. Neither Party may act as the agent of the other Party or incur any liability on behalf of the other Party.

b. **Assignment:** This Agreement shall not be assigned, sublicensed, sold, mortgaged, sub-contracted, or pledged to any other third person by the Contractor without the prior written consent of IIMB.

c. **Publicity:** Both the Parties shall be entitled to issue or make any press releases or other public announcements relating to this Agreement. However, all press releases or other public announcements relating to this Agreement must be approved in advance and in writing, in each instance, by both the Parties.

d. **Notice:** All notices, including notice of address change, required to be sent hereunder shall be in writing and shall be deemed to have been delivered when mailed by first class mail or reputable courier service return receipt requested to the address stated in the first page of this Agreement. Electronic communications are admissible provided these are sent with delivery confirmation receipt and followed by physical copy mailed as set forth above.

e. **Severability:** If any provision of the Agreement is or becomes invalid or impracticable in whole or part, the validity of the other provisions of this Agreement shall not be affected thereby. The invalid provisions shall be replaced by valid provisions that come closest to the economic intention pursued by the Parties.

f. **Amendments:** This Agreement may only be modified by mutual consent in writing, signed by the authorized representatives of each Party.

g. **Force Majeure:** No Party shall be in default under this Agreement by reason of its failure or delay in the performance of its obligation if such failure or delay is caused by acts of God, Government Laws and Regulations, Strikes/lock-outs at the venue, war, natural calamities or any other cause beyond its control and without its fault or negligence.

The Party claiming the relief under force majeure shall notify the other Party thereof without undue delay and if the impediment continues for more than three (3) months due to such causes as mentioned above, either party shall be entitled to terminate the Agreement by written notice to the other party without incurring any liability for breach of contract.

h. **Entire Agreement:** The terms and conditions contained in the following documents are deemed to form part of this Agreement, namely, the Tender document including the Notice Inviting Tender, General Conditions, Special Conditions, the Specifications, the Priced Bill of Quantities, the Schedule of rates and prices, and the Drawings mentioned in the Specifications. The letter of Acceptance, Work Order and all the communication between the Parties will also form part of this Agreement.

Renovation of Classrooms at K Cluster at IIMB

In Witness Whereof the said parties hereto have hereunto set their hands.

For IIMB

Witnesses:

- 1.
- 2.

For Contractor

Witnesses:

- 1.
- 2.

PROFORMA G

CHECK LIST

(Please submit in your letter head with date)

Please write Tick (✓) mark in the concerned column. Enter the page numbers for every page of the Bid Document and write the Page Number in the Remarks column. This Check List should be placed as the first page of the Bid Document.

Sl.No.	Description	Submitted	Not submitted	Remarks
1	Details of Earnest Money Deposit			
2	Annual turnover			
3	Maximum value of works executed in any one year (specify year) during last 3 years including turnover as per current balance sheet.			
4	Work experience			
5	Proformas			
6	Declaration regarding non-blacklisting			
7	Litigation details			
8	GST Certificate			
9	Affidavit (please see Format of Affidavit)			

PROFORMA H

[FORMAT OF AFFIDAVIT]

(Please submit in your letter head with date)

To

Chief Manager (Infrastructure)
Estate Section
Indian Institute of Management Bangalore
Bengaluru.

Sir,

Sub:

Authority:

I, the undersigned hereby state that labourers / employees working [As per list enclosed] for M/s. _____ IIMB Ref No. _____ are free from all adverse antecedents. In the event of any unusual act / incidents / accidents caused by the labourers / employees working for M/s. _____ I take full responsibility for the lapses and misconduct on the part of labourers engaged by me.

Thanking You

Yours faithfully,

Signature:

Name:

PROFORMA - I

LITIGATION DETAILS (COURT CASES/ARBITRATION)

(To be submitted on company letterhead with date)

Year Name of the work

Name of the Client, with Address

Title of the court Case/Arbitration

Detail of the Court/ Arbitrator

Status Pending/ Decided

Disputed Amount (Current Value, the equivalent) in case of Court Cases/arbitration

Actual Awarded Amount (Rs) in decided Court Cases/Arbitration

Signature and seal of Authorized Signatory of bidder

PROFORMA – J

DECLARATION REGARDING BLACKLISTING / DEBARRING FOR TAKING PART IN TENDER

(To be submitted on the company letterhead)

I / We hereby declare that the bidder / bidder namely M/s **(name of the bidder)** has not been blacklisted or debarred in the past by Union / State Government or organization from taking part in Government tenders in India and should not have any litigation in any of the courts.

OR

I / We **(name of the bidder)** hereby declare that the bidder / bidder namely M/s **(name of the bidder of the bidder)** was blacklisted or debarred by Union / State Government or any organization from taking part in Government tenders for a period of years w.e.f. To The period has been completed on and now the bidder / bidder is entitled to take part in Government tenders.

In case the above information is found false, I / We are fully aware that the tender / contract will be rejected / cancelled by the Institute and the PEMD submitted by the bidder will be forfeited.

In addition to the above, Institute will not be responsible to pay the bills for any completed / partially completed work.

Seal and Signature of the Bidder