NOTICE INVITING E-TENDER FOR DESIGN SUPPLY INSTALLATION TESTING & COMMISSIONING OF 01 NOS. 10 PASSENGER/SERVICE GEARLESS MACHINE ROOM LIFTS IN REPLACEMENT OF 01 OLD FREIGHT LIFTS IN STUDENT MESS INCLUDING CIVIL AND ELECTRICAL WORK AT IIM, LUCKNOW.

To,

M/S._____

_____

_____

SUB.: NOTICE INVITING E-TENDER FOR DESIGN SUPPLY INSTALLATION TESTING & COMMISSIONING OF 01 NOS. 10 PASSENGER/SERVICE GEARLESS MACHINE ROOM LIFTS IN REPLACEMENT OF 01 OLD FREIGHT LIFTS IN STUDENT MESS, INCLUDING CIVIL AND ELECTRICAL WORK AT IIM, LUCKNOW.

Dear Sir,

Tenders are invited, on behalf of the Director, Indian Institute of Management, Lucknow for Design Supply Installation Testing & commissioning of 01 Nos 10 passenger/service gearless machine room Lifts in replacement of 01 old freight lifts in the Student Mess, including civil and electrical work at IIM, Lucknow, Prabandh Nagar, Lucknow as per BOQ attached. The Institute invites you to participate and to send your offers as per the attached **NOTICE** inviting **E-TENDER**.

E-Tenders are invited under two bid system (both Technical and Financial) from reputed Companies. The complete Tender document containing General term and Conditions, pre-qualification requirements, BOQ, scope of work, Specifications etc. are available on http://eprocure.gov.inprocure/app and our website http://www.iiml.ac.in for reference only.

Reputed Companies may submit their bids in the prescribed format with all the necessary documents online at http://eprocure.gov.inprocure/app on or before bid submission closing Date & Time

Sd/-
DEAN (Infra)
For Indian Institute of Management

INSTITUTE OF MANAGEMENT LUCKNOW

NOTICE INVITING E-TENDER
NIT NO. IIML/PROJ/TENDER/2026-27/4640 Dated-08/10/2026

NOTICE INVITING E-TENDER FOR DESIGN, SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF 01 NOS. 10 PASSENGER/SERVICE GEARLESS MACHINE ROOM LIFT IN REPLACEMENT OF 01 OLD FREIGHT LIFTS IN STUDENT MESS, INCLUDING CIVIL AND ELECTRICAL WORK AT IIM, LUCKNOW.

Dear Sir,

E-Tenders are invited from reputed companies for Design, Supply, Installation, Testing & commissioning of 01 Nos 10 passenger/service gearless machine room Lifts in replacement of 01 old freight lifts in the Student Mess at IIM, Lucknow. To submit their tender, quote your minimum percentage on the enclosed bill of quantity on behalf of the Director, IIM, Lucknow. The General terms & conditions of the service contract are also enclosed which are binding to both IIML and the Bidder.

Name of work	:	Design Supply Installation Testing and commissioning of 01 Nos 10 passenger/service gearless machine room Lifts in replacement of 01 old freight lifts in the Student Mess at IIM, Lucknow
Earnest Money	:	Rs. 39,500/- (Rupees Thirty-Nine Thousand Five Hundred Only)
Total Estimated Cost	:	Rs. 1661438/- + GST
Period of Contract	:	120 days
Date of issue of tender document	:	As mentioned in the E-procure portal
Date Pre-Bid Meeting	:	As mentioned in the E-procure portal
Late Date for Submission of Tender Document	:	As mentioned in the E-procure portal
Date of opening of Technical Bid Opening	:	As mentioned in the E-procure portal
Date of opening of Financial Bid Opening	:	Will be informed of the Bidders Qualifying for the Technical Bid.
starting of work	:	15 days from the Date of the LOI.

Tenderers are advised to visit the site and see the work before submitting the tender. **The Technical and Financial bids should be uploaded through the E-tendering process only before the due date & time.**

Sd/ -
DEAN(Infra)
For Indian Institute of Management Lucknow

TECHNICAL BID

A. SCOPE OF WORK

The scope of work under this tender shall include the design, manufacture, work testing, supply, storage, erection/installation, site testing, commissioning, putting into operation, final testing, training, and trials of the passenger/service Lifts as per the technical parameters attached to this document.
Student Mess is G+1 Building, which is being used as a guest house for National and international students.
The preferred brands are Mitsubishi Electric, Schindler, Otis Lift, Kone India Lift, Thyssenkrupp, Toshiba Group, Johnson Lift, Birla Lifts Ltd, and Hitachi Lift.
Work under this contract shall be executed as given in the specifications and at the site, whether specially shown or not. The Contractor shall carry out and complete the work under this contract in every respect in conformity with the contract documents and with the directions of and to the specification of the IIML.
The specification is intended to cover the Design Supply Installation Testing & Commissioning of 01 Nos. 10 passenger/service gearless machine room Lift at (G +1) ***(****suitable for PH/disabled person)* in Student Mess at IIM, Lucknow and replacing 1 old freight lifts also includes civil and electrical work is not the intent to specify completely constructional features of the equipment and details of the work to be carried out but nevertheless the intent of the specification is to ensure that the equipment and the work shall conform in all respects to the relevant Bureau of Indian Standards Specifications, codes of practice, Acts and other Statutory Regulations as may be applicable and to high standards of engineering design and workmanship. The equipment and work shall be performed in continuous operation in a manner acceptable to the IIML, who will interpret the meaning of the specifications and the drawings and shall have the right to reject or accept any equipment or work which, in their assessment, is not complete to meet the requirements of this specification and/or applicable codes and standards.

The Contractor shall include the supply of all materials in accordance with the specifications given in APPENDIX I & II and the whole of the work and fixing necessary for the complete installation as set down in the specification and with the accompanying schedules. All apparatus, appliances, materials, tools, and equipment or labour which may be necessary for satisfactory installation and operation of the system in accordance with the intent or purpose of the specifications shall be considered to be in the scope of work of the contract and shall be furnished without extra charges as if fully described and called for in the specifications.

Special care is to be taken for the cleanliness of the site. After the end of the day's work, the site should be cleaned immediately. All the scrap/waste/debris, etc., generated during the execution of these works must be disposed of at the location specified by the engineer in charge. The work should be carried out in a truly professional manner and neatly finished. Cleanliness and finishing of the job are of utmost importance. Hence, the job should be done most carefully with the best workmanship. Since it is a student mess that will be functional during the execution of the works. The work timing must be adjusted so that the least disturbance is caused.
The BIS and Codes of Practice with up-to-date amendments will apply to the equipment and the work covered by the scope of this contract.
In addition, the relevant clauses of the Indian Electricity Rules 1956, as amended upto date, and the Indian Electricity Act 1910 shall apply. The Contractor must also take into account local and State regulations as in vogue in UP for the design and installation of Lifts.
Wherever appropriate Indian Standards are not available, relevant British and/or IEC Standards shall be applicable. BIS-certified equipment shall be used as a part of the Contract.

IS-PRACTICE CODE-17900

The specifications cover manufacture, testing as may be necessary before dispatch, delivery at the site, all proprietary work, assembly and installation, commissioning, and putting into operation of lifts. The work shall be executed as CPWD General specifications of the Electrical Works (Part III, Lifts and Lifts 2003) as per relevant IS and as per the direction of the Engineer-In-Charge.

No T&P shall be issued by the Department, and nothing extra shall be paid on account of this.

The Lift Manufacturer shall comply with BIS standards, duly certified by designated labs/certifying agencies.

The downtime of installed lifts, which are being maintained by the manufacturer, shall not be more than 8 hours in case of minor faults and 7 days in case of major faults.

The contractor has to carry out Comprehensive Maintenance for 24 months from the date of handing over. Nothing extra shall be paid for this.

The old lift is to be replaced with the new one. Complete dismantling of the old lift, stacking the dismantled material, and joint measurement of the dismantled materials. Pics of the cleaned-up lift shaft and machine room after dismantling, repair of any damage to the civil structure etc. to be done by the contractor, white wash/ white painting of the shaft to be done by the contractor. Bilk head, etc., to be provided and fixed by the contractor. Scaffolding and any other tools/ equipment/ plant needed have to be arranged by the contractor. Any associated civil work such as call button provisioning and fixing, making good the previous Button location, fixing of fasteners etc., filling the old fastener holes, core cutting of the matching ropes etc. complete all the work, Telephone line connection, Buffer foundation/ modification, any fixture installation, Hoist girder fixing (if required), Floor channels dismantling and fixing the new one, changing of the guide rails and counter weight, changing of the machine/ drives, controller, core cutting, civil works for call button (hall call button) changing etc. whatever needed for completion of the lift and it operations including the obtaining of NOC and license etc. are in the scope of the contractor. Any telephone line/ data line required to be provided to the car may be provided by the contractor. Even the Telephone hand set for the call for the emergency and the emergency button etc. are in the scope of the contractor. The hoisting girder/ any fixed structural part that cannot be dismantled/ will lead to weakening of the structure has to be thoroughly assessed by the contractor for fitness to be used for a new lift. The contractor will take permission from the IIML for reusing the same, and then only he can use that girder/ structural part of the old lift. This is only applicable for the fixed structural part whose removal can lead to weakening of the structure.

In addition to the Design, supply, installation, testing, and commissioning of the lift, including all auxiliary equipment, the following works shall be deemed to be included within the scope of the work to be done by the contractor.

- Supply of necessary R.S. joists or angle iron support brackets etc., for installation of the lift, either in the machine room or at other places as may be necessary, including their installation in position.
- All electrical works except bringing in the main connection to the machine room were terminated on a suitable switch, fuse unit/ board. All electrical works, including interconnection from this switch/board and loop earthing from the earth bar, to be provided in the machine room/Hoistway Control Panel, shall be done by the successful contractor.

- Responsibility for ensuring the safety of lift materials against pilferage and damage till the installation is handed over to the consignee.
- All scaffolding as may be necessary in the lift well during erection work and subsequently removed.
- Temporary barricades with caution boards at each landing to prevent accidents during the execution of work.
- Supply and installation of landing facia plates made of stainless steel, car apron plates, sill support angles with necessary clamps, foundation bolts support, hoisting structure, fastener, channel etc., as are necessary in connection with the installation of the lift.
- Steel ladder to be provided for access to the lift pit wherever required under regulations.

B. INSTRUCTION TO TENDERER

(i) The Tenderer shall read the document carefully before filling it.

(ii) Bidders are required to deposit an amount of Rs. 39,500/- (Rupees Thirty-nine Thousand five hundred only) towards Earnest Money Deposit (EMD) to the below-mentioned bank account of the Institute on or before the last date & time mentioned above. EMD through any other form will not be accepted. UTR number / Transaction ID and date of Deposit/Transfer of EMD shall be mentioned in the Technical Bid at an appropriate place. **Those who are exempted from the deposit of EMD shall upload the valid certificate in this regard**. Bank Account Detail

Account No.	07231450000294
IFSC Code	HDFC0000723
Name of Bank & Type of Account	HDFC BANK/Saving

(iii) Financial bids must be filled and submitted in the prescribed formats given on the CPP portal separately. A sample format of the financial bid has been attached with the technical bid just for the understanding of the bidders. This is required to be kept blank and just signed and stamped along with the other documents of this Tender. If a quoted financial bid is found along with the technical bid of this Tender, then the Tender shall be straight away rejected.

(iv) Tender must be valid for a minimum period of 120 days from the date of opening.

(v) Technical offers shall be opened first, if the tenderer fails to submit the EMD then their technical offer will not be Opened/Evaluated. The technical offers will be evaluated by the selection committee based on the technical evaluation criteria of this document. The Financial offers from technically unqualified tenderers as per evaluation criteria will not be opened.

(vi) Financial offer shall be opened only for those tenders who are technically qualified as per the evaluation criteria of this tender document.

(vii) The dates for opening financial offer will be communicated to the tenderers and tenderers are requested to be present at the time of opening the tenders. An authority letter is must if any person other than who has signed the tender document attends such event.

(viii) Each page of the tender document must be signed by the authorized signatory of the tenderer.

(ix) The original tender document, duly signed and filled out, should be uploaded. The tender not accompanied by a complete document or duly filled in all respects shall be rejected.

(x) All erasures, cuttings, and alterations made must be attested by the authorized person while filling the tender document. Over-writing of figures is not permitted.

(xi) Bidder must visit the site and see the means of access to the site and specifications, and acquaint themselves fully with the works to be carried out and all other factors governing the works before quoting their rate.

(xii) The successful tenderer shall submit additional Initial Performance security of 3% of Contract Value in case EMD was submitted. The EMD submitted in this case will also be converted to performance security. In case of the Exemption under MSME for EMD or want to submit full performance security, then 5 % of the contract value has to be submitted as performance security in the form of DD/FDR/Bank Guarantee in favor of the Director, Indian Institute of Management, Lucknow, within 12 days of the award of work. A maximum Grace period of 3 Days will be given after the levy of a penalty equal to 1 % of the performance security value per Day. In case after 15 days of issue of LOI, the Performance security is not deposited, unless any extension has been granted by IIM Lucknow, then the Work awarded/ LOI issued will be straightaway considered as Terminated, and EMD (if deposited) will be forfeited. After submission of performance security, EMD will be released.
Similarly, an Agreement on Rs 100 stamp paper will be required to be executed within 12 days of the issue of the LOI, and if the contractor fails to get the agreement done within 12 days, unless any extension has been granted by IIM Lucknow, then the Work awarded/ LOI issued will be straightaway considered as terminated.
The performance security (3%+2%) shall be released after 60 days of satisfactory completion of SITC work, which is 6 months (120 days for SITC works + 2 months after satisfactory work completion) or the extended period of the contract or the completion date of the last work awarded till the completion/ extended date, whichever is last. EMD of the unsuccessful tenderer shall be returned after finalization of the contract. No interest shall be paid on the amount.

(xiii) This is a percentage rate Tender. The rate quoted by the Tenderer shall be inclusive of packaging, forwarding, insurance, freight, delivery, installation, testing, commissioning, etc. at the site i/c temporary construction storage, risks, overhead charges, general liabilities/obligations, and clearance from local authorities. Rates are inclusive of **GST**.

(xiv) If any discrepancy/misprint is noticed in the specification or BOQ, it should be clarified with the Institute before quoting the rate.

(xv) The Indian Institute of Management, Lucknow does not bind themselves to accept the lowest or any other tender and reserves the right to accept or reject any or all the tenders either in full or in part without assigning any reason.

(xvi) The tender shall be opened & evaluated by the tender committee and the successful tenderer shall be informed.

(xvii) If any of the documents submitted by the tenderer is found fake, even after the acceptance of tender, the contract will be terminated for which the concerned

tenderer will itself be responsible and no compensation, etc., will be paid by the IIM, Lucknow.

(xviii) The Director, Indian Institute of Management, Lucknow, reserves the right to reject one or all the tenders without assigning any reason. No claim whatsoever shall be entertained on this account.

(xix) 5% of the payable bill value will be retained from each bill as a defect liability period & shall be released after a defect liability period of at least 24 months. No interest shall be paid on the amount.

(xx) Tenderer can avail relaxation (in tender fees and EMD only, no relaxation will be given for experience) given as per Govt. norms for NSIC/MSME registered firm.

(xxi) The successful tenderer's uploaded document will be verified with the original at the time of LOI / Agreement.

(xxii) Tender term & condition also includes GCC, which is uploaded on the IIML website, and shall also be part of this contract, and its terms and conditions shall be binding to both IIML and the successful Tenderer. So please read it properly. Link https://www.iiml.ac.in/sites/default/files/upload/tender/293037022gcc.pdf

(xxiii) If any discrepancy/misprint is noticed in the specification or BOQ, or rates or units, it should be clarified from the Institute before quoting the percentage. If any discrepancy between the price bid format of this Tender document and the macros-enabled Excel file of the actual price bid on the CPP portal is observed by the Bidder, or if any item unit/ rates are found illogical/ impractical, then in that case, the same has to be brought to the notice of the Institute before the last date of submission. So that the required correction/ corrigendum can be made. If such an issue is found at the later stage after award of the work either by the Contractor or by the Institute, then the logical decision based on the standard practice and as per the Institute's internal documentation shall be taken by the Institute and the same decision will be binding to the contractor and no claim whatsoever will be entertained in this regard.

TECHNICAL DETAILS OF BIDDER

The technical offer submitted by the bidders will be evaluated based on the following credential criteria.

S.No.	Particulars	Credential Criteria of Firm
1	Name of the firm & Address (Where registered post can be received)	
2	Contact No. and Email-ID	
3	GST Registration No. of the firm/Agency (Enclose copy):	
4	Income Tax Permanent Account No. (Enclosed copy)	
5	Experience of the firm in a similar field during the last five years, ending the last day of the month previous to the one in which tenders are invited for submission of tender. (Copy of Completion Certificate to be enclosed).	
6	Average Annual Turnover during the average annual financial turnover over the last 3 years from the 5 financial years ending 31st March 2026. (The certificate for the average Turnover of the Tenderer issued by a registered Chartered Accountant, with UDIN No.)	
7	Either the OEM directly or a bidder authorized by the OEM to participate in this tender. A relevant certificate from the OEM must be submitted and referenced.	
8	Details of EMD uploaded or MSME registration no. and year	
9.	Address of Nearest after-sales service provider (for Annual Maintenance, availing warranty, etc.)	
10.	Make of Lift	
11.	Turnover of OEM and GST No of OEM	

BIDDER TECHNICAL CRITERIA

a) <u>ANNUAL TURN OVER</u>:

Average annual financial turnover during any three years from the last 5 financial years ending 31st March 2026. The Bidder must enclose documentary proof of Turnover, which should be at least 50% of the estimated cost.

b) The Bidder should have **experience in executing SITC of a lift or the Construction of multi-storied buildings with SITC of a lift or SITC of a lift along with civil work** in any Government/PSU/ Autonomous Body, such as IIM, IIT, etc., or should have executed works in any registered Private Limited Organization. **This Condition is Mandatory. The minimum value of the** work/works as mentioned above during the last 5 years ending the last day of the month previous to the one in which tenders are invited should be either of the following.

i. **Three completed contracts** of **experience in executing SITC of a lift or the Construction of multi-storied buildings with SITC of a lift or SITC of a lift along with civil work** costing not less than **Rs 7.84 Lakhs each.**

OR

ii. **Two completed contracts of experience in executing SITC of a lift or the Construction of multi-storied buildings with SITC of a lift or SITC of a lift along with civil work** costing not less than **Rs 11.76 Lakhs each.**

OR

iii. **One completed contract of experience in executing SITC of a lift or the Construction of multi-storied buildings with SITC of a lift or SITC of a lift along with civil work** costing not less than **Rs 15.68 Lacs each.**

Note:

(1) The work shall be completed as a whole. Partial value/ partial completion is not to be considered. The meaning of "Similar Work" for the tender has been defined as "**experience in executing SITC of a lift or the Construction of multi-storied buildings with SITC of a lift or SITC of a lift along with civil work**".

c) **EMD:** Earnest Money Deposit as specified in NIT to be furnished in any of the following forms and shall be valid up to 120 days from the last date of submission:

- In case needs exemption under the MSME criteria, then a valid MSME certificate is required to be uploaded on the e-procurement portal.
- Can be deposited in the below-mentioned Institute Bank Account, and share the UTR/Transaction number and date of the transaction in the technical bid, and the copy of the transaction receipt must be uploaded online on the portal with other documents. Those bidders who are exempted from the deposit of Tender Fee & EMD (Earnest Money Deposit) must submit the relevant certificate to claim the exemption and mention 'Exempted' in the Technical Bid where the UTR number has been asked. In case the enclosed certificate is not valid or not acceptable to the Institute, the submitted bid will be treated as a bid without Tender fee/ EMD and will be rejected.

Bank Account No.	07231450000294
IFSC Code	HDFC0000723
Name of Bank &Type of Account	HDFC/Savings

d) Either OEM directly or a bidder who had been authorized by OEM to participate in this tender may participate. An authorization from the OEM must be submitted.

e) Copy of PAN No. Registration certificate issued by the Income Tax Authority. This Condition is Mandatory.

f) Copy of Certificate of GST number. This Condition is Mandatory.

g) The manufacturer of lift (OEM) shall be compliant with the Public Procurement (Preference to Make in India), Order 2017 (as amended from time to time) issued by the Department of Industrial Policy and Promotion (DIPP), Ministry of Commerce and Industry.

h) Intending parties are required to submit an undertaking that their firms have never been debarred/blacklisted by any Government/Public sector department, and there is no criminal case registered in any police station against the Proprietor/ partners/ any of the Directors. This undertaking is to be given in the following format: **This Condition is Mandatory.**

1. I/ I/We declare and confirm that I/we have never been blacklisted /debarred from any Govt/Public sector enterprises in the last 5 years.
2. There is no Arbitration case/ legal case/ dispute of my firm with the Indian Institute

of Management Lucknow.

3. There is no criminal case against me/ and my partner/board of directors is there in any court/Police station in India.
4. There is no suppression or concealment of information/document concerning the execution of work during the last 05 years.
5. I / We are aware that any false information provided herein will result in the rejection of my tender at any stage.
6. All the information furnished by me/us here above is correct to the best of my knowledge and belief.
7. I/we have no objection if inquiries are made about the work listed by me/us in the accompanying sheets / Annexures.
8. I / We agree that the decision of the Indian Institute of Management Lucknow in the selection of contractors will be final and binding on me/us.
9. I / We have read the instructions, and I/We understand that if any false information is detected later, the tender shall be cancelled at the Company's discretion, and I/We shall be liable for any action, as deemed unfit by the Indian Institute of Management Lucknow.

OEM TECHNICAL CRITERIA

i) OEM of lift should have a turnover of 500Cr. GST No of OEM must be submitted.

j) Declaration/Undertaking for the supply of spare parts for 15 years from OEM. (Format attached as ANNEXURE-A).

k) The OEM must have a service center in Lucknow. This Condition is Mandatory.

TENDER Declaration

I/We have read and examined the Notice Inviting tender, Instructions to the tenderer, Specifications applicable, Drawings and designs, General Rules, and Directions, Conditions of Contract, clauses of the contract, General Conditions of Contract, Special conditions, & other documents and rules referred to in the conditions of contract and all other contents in the tender document for the work including GCC attached separately or upload on iiml.ac.in.

I/We have thoroughly read the tender specification and have understood the site/ working condition

I/We hereby tender for the execution of the work specified for IIM, Lucknow within the time specified, viz., schedule of quantities and in accordance in all respects with the specifications, designs, drawings, and instructions in writing.

I/ We agree to keep the tendered rates valid till 120 days from the date of opening of the tender and not to make any modifications to its terms and conditions.

A sum of Rs. 39,500/- is hereby forwarded in the IIML account through RTGS/NEFT issued by a scheduled bank as earnest money.

OR

I/We had submitted a self-attested copy of a valid certificate as proof of exemption from submission of Earnest money deposit.

In case I/ our company is identified L1 in this Tender and If I/we, fail to furnish the prescribed performance guarantee fail to commence the work within the prescribed period, or fail to execute the agreement within the prescribed period from the date of declaration of L1 I/we agree that the IIM, Lucknow or its successors in office shall without prejudice to any other right or remedy be at liberty to forfeit the said earnest money absolutely, award the work to other agency as per the discretion of IIM, Lucknow and can debar my/ our company/ firm for further bidding for next Two years. Further, if I/we fail to commence work as specified, I/we agree that IIM, Lucknow or his successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely, otherwise the said earnest money shall be retained by him towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations/ additional/ extra items as may be ordered as per the provisions in the Contract.

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

I/We undertake and confirm that eligible similar work(s) has/ have not been got executed through another contractor on a back-to-back basis. Further that, if such a violation comes to the notice of the Department, then I/we shall be debarred for tendering in IIM, Lucknow in the future forever. Also, if such a violation comes to the notice of the Department before the date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

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

Dated _____**_____

Signature of contractor
with seal of the agency/ firm

C. DEFINITIONS

In this Contract, the following words and expressions shall have the meanings as stated below:

(i) **'IIM'** shall mean Indian Institute of Management, IIML Road, Lucknow and shall include their successors and assigns, as well as their authorized representatives.

(ii) **ENGINEER-IN-CHARGE** shall mean the engineer appointed by the IIML to supervise all activities of the project.

(iii) **'TENDERER'** shall mean the company/agency who quotes against the tender inquiry for undertaking the work.

(iv) **'CONTRACTOR'** shall mean the successful tenderer whose tender has been accepted by the IIML and to whom the order is placed by the IIML and shall include his heirs, legal representatives, successors etc.

(v) **'PERMANENT WORKS'** shall mean all the works included in the schedule of quantities and shall also include additions, alterations, etc. communicated in writing.

(vi) **'SITE',** shall mean all places i.e. IIM, Lucknow where the project is to be executed.

(vii) **'PROJECT'** shall mean the entire work specified in the contract documents inclusive of extra items/extra quantities (if any) executed during the contract period.

(viii) **'ACCEPTANCE LETTER',** shall mean written consent by a letter of IIML to the tenderer intimating him that his tender has been accepted.

(ix) **'CONTRACT'** shall mean the articles of Contract Agreement. The conditions of the contract, schedule of quantities, and specifications, are attached and duly signed by the IIML and the Contractor.

(x) **'DATE OF CONTRACT'** shall mean the date on which the IIML has issued an acceptance letter.

(xi) **'CONTRACT PERIOD'** shall mean the period (including rainy season) specified in the tender documents during which the contract shall be executed.

(xii) **'COMPLETION CERTIFICATE'** shall mean the certificate issued by the IIML to the contractor after the successful completion of the project. This certificate will be issued on the basis of the consultant's/ User's certificate to IIML about the completion of the job.

(xiii) **'EXTRA ITEMS'** are those items, which are not appear in the BOQ but are required to be executed during the project period and for which rates are to be derived as per the formula given in the conditions of the contract.

(xiv) **'EMD'** shall mean Earnest Money Deposit. The Owner takes this amount to check the earnestness/seriousness of the tenderers in case they are selected as winners.

D. GENERAL CONDITIONS OF THE CONTRACT

General conditions of the Contract are available at the IIM, Lucknow website and at the Project Division Office. These conditions shall be part of this contract. The successful Bidder shall be required to submit the signed hard copy of these General Terms and Conditions after the issue of the LOI and before starting of the work.

E. SPECIAL CONDITIONS OF CONTRACT.

1.1 Directive to Contractor

1.1.1 Interpretation of Contract Documents:

(i) All the documents (such as NIT, TENDERER DECLARATION, DEFINITIONS & SCOPE OF WORK, TECHNICAL SPECIFICATIONS, General Conditions of Contract, Special conditions of Contract which are available on IIML Web site and FINANCIAL BID) forming part of the contract are to be taken as mutually explanatory, supplementary and complementary to each other. If there is any error, omission, or discrepancy in any of them, it shall be brought to the notice of the IIM. The decision of the IIML shall be final and binding. The contractor shall execute the work accordingly.

(ii) The contractor shall examine all the contract documents thoroughly, including the scope, nature, and magnitude of works he has to execute in accordance with the contract documents.

(iii) The contractor shall visit the project site so as to study the site conditions, means of access to the site, and other factors governing the works.

1.1.2 Period of Contract:

The time period for completion of the job for Design Supply Installation Testing & commissioning of 01 Nos 10 passenger/service gearless machine room Lifts in replacement of 01 old freight lifts, also including civil and electrical work in the Student Mess at IIM, Lucknow, shall be completed within 120 days from the date of issue of LOI (Letter of Intent). Extra time will be given for obtaining the NOC and Lift Operating License from the Directorate of Electrical Safety/ Applicable Authority. The tenderer has to apply for NOC within 7 days after completion of work.

1.1.3 Authorities

The work shall conform to all provisions of the relevant Government Legislation, Regulations, and by-laws of the Central/Local Authorities and of any Companies to whose system the installation is proposed to be connected. The Contractor shall give all notices required under the said Acts, Regulations, and/or by-laws. The Contractor shall be liable for any omissions and commissions in this regard.

1.1.4 Specifications and Schedules

The Specifications and Schedule of Quantities shall be considered as part of this contract, and any work or materials shown in the Schedule and not called for in the Specifications or vice versa shall be executed as if specially called for in both. The drawings indicate the extent and general arrangement of the equipment, landings, hoistway, etc., and the area is essentially diagrammatic.

The work shall be installed as indicated on the drawings. However, any minor changes found essential to coordinate the installation of this work with other trades shall be made without any additional cost. The data given herein is as exact as could be secured, but its complete accuracy is not guaranteed. Exact locations, distances, and levels will be governed by the site conditions.

1.1.5 Coordination with other agencies

The successful contractor shall coordinate lift installation work with other contractors/agencies engaged in the construction of the building/other electrical works, if any, and exchange all technical information freely so as to make the execution of the works contract smooth.

1.1.6 Completeness of tender

All fittings, equipment, units, assemblies, and accessories, hardware, foundation bolts, terminal lugs for electrical connections, cable glands, junction box, and items that are useful and necessary for efficient assembly in operation, and installation shall be complete in all details, whether such details have been mentioned in the specification or not.

1.1.7 Scaffolding

Scaffolding and minor builders' work, including providing dash fasteners for fixing rails, brackets, etc., shall be the responsibility of the Contractor.

1.1.8 Steel

The contractor shall include in his scope of work all steel requirements for machine beams, bearing plates, buffer supports, and channels as required. All steel items not including but required for the installation work shall be part of the tender document.

1.1.9 Certificate

On completion of the installation, a certificate shall be furnished by the Contractor countersigned by the license Supervisor under whose direct supervision the installation was carried out. This certificate shall be in the prescribed form as required by the local supply authority. The Contractor shall be responsible for getting the installation inspected and approved by the local authorities concerned.
The Contractor will also submit its internal Safety Audit Report after successful installation of the lift.

1.1.10 Statutory Approvals

The Contractor shall submit the required applications, drawings, etc to the Corporation, Lift Inspector, Electrical Inspectors, Factory Inspectors, and/or any other statutory authorities and obtain the approval, licenses, and/or sanctions. The completion certificate shall be obtained by the Contractor from all statutory authorities to enable the Owners to commission the equipment or its utilization. The Contractor shall be responsible for all fees, etc., to be paid to the various authorities in this respect. The work shall not be deemed to have been completed until the above approval certificates, etc have been obtained by the Contractor. Contractor will be responsible for obtaining the required NOC and Licence for the operation of the lift. Any liaison required with the required Authority is the responsibility of the contractor.

1.1.11 Spares

Contractors shall submit the list of recommended spares for 15 years of operation, listing items with individual prices. Undertaking from OEM that the Spares will not be ruled out of the Market for the next 15 to 20 years.

1.1.12 Documentation

The Contractor shall provide two sets of operation & maintenance manuals with instructions for routine and periodic maintenance.

1.1.13 Delay in work execution due to reasons beyond the contractor's control:

Force Majeure:

If the execution of work is delayed due to force majeure, or due to circumstances which were not in the control of the Tenderer, then IIML, as per the affected period, may extend the time period at the discretion of the Director of the Institute.

1.1.14 Dispute & Arbitration:

(i) All disputes or differences whatsoever arising between the parties out of or relating to this contract or the specifications, designs and quality of work, quality of materials used for the work, construction, meaning and operation or effect of the work or the breach thereof that cannot be settled by good faith and negotiations between the parties within 60 days of the commencement of the negotiation shall be settle by mutually referring the dispute to a sole Arbitrator and the award passed by him shall be final and binding on the parties. The selection of an arbitrator shall be made by mutual consent. The cost of arbitration shall be divided equally. The proceedings will be governed by the provisions of the Arbitration & Conciliation Act, of 1996. The place of arbitral proceedings will be Lucknow. The language of the arbitral proceedings shall be English

(ii) By consent of Parties the jurisdiction of all other courts is excluded and the courts at Lucknow alone shall have jurisdiction.

(iii) "Abandonment/incomplete work", wherein it should be mentioned that apart from the forfeiture of security the incomplete work shall be completed from some other agency, and the costs thereof be recovered from the contractor.

(iv) The service of notice will be given by e-mail, fax, courier, speed post, or registered post, and the address for service of notice be specified both for IIM, Lucknow and the contractor.

1.1.15 Escalation:

The rates/percentage quoted by the contractor in the contract documents shall be final and shall not be subjected to any change due to the increase in labour wages or inflation wages or inflation in the cost of materials or fuel or any other price variations due to any reason during the stipulated time period of the contract or during the extended time period of completion.

1.2 Execution of Work

1.2.1 General:

All the works shall be executed in accordance with the specifications and instructions approved by the IIML as mentioned in the contract document.

1.2.2 Inspection of works:

(i) The IIML shall have the full authority to inspect the works at any time, at any stage. The contractor shall provide adequate facilities to carry the

inspection work. The contractor should present himself or his authorized representative during the inspection so that the IIML can convey the instruction regarding the works.

(ii) The contractor shall give information to the IIML before covering up the works so that the same can be inspected and measured jointly & correctly to true dimensions.

(iii) If the contractor fails to get the work inspected before covering it up, then the IIML has full authority to get the work uncovered at the expense of the contractor and if any fault is found then the contractor should rectify the same without claiming any extra payment.

1.2.3 Inadequate/substandard works and materials:

(i) Material used should be mentioned in **BOQ**

(ii) If any work executed by the contractor is found to be of bad workmanship, then the same is to be dismantled and re-executed by the contractor without claiming any extra payment or extension in time period.

1.2.4 Default of Contractor in Compliance:

If the contractor or his authorized representative fails to follow the instructions given by the IIML regarding any of the works, then the same shall be got executed by engaging other contractors/ persons by IIML at the risk and cost of the contractor.

1.2.5 Discrepancies between instructions:

The several documents forming the Contract are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small scale drawing and figured dimensions in preference to scale and special conditions in preference to General Conditions. In the case of discrepancy between the schedule of Quantities, the Specifications and/ or the Drawings, the following order of preference shall be observed: -

i. Description of Schedule of Quantities.
ii. Particular Specification and Special Conditions, if any.
iii. Drawings.
iv. IIM, LUCKNOW Specifications.
v. Indian Standard Specifications of B.I.S.
vi. G.C.C. , S.C.C. etc

If there are varying or conflicting provisions made in any one document forming part of the contract, the Accepting Authority shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on the contractor. Any error in description, quantity or rate in Schedule of Quantities or any omission therefrom shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the works comprised therein according to drawings and specifications or from any of his obligations under the contract.

If any discrepancy occurs between the various instructions conveyed to the contractor or his authorized representative or if any misunderstanding arises between the contractor's staff and IIM's staff, the contractor shall report the matter immediately to the IIM. The decisions of IIML shall be final and binding. Moreover, no claims for losses due to discrepancies between instructions, doubts or misunderstandings shall be admissible.

1.2.6 Liabilities for defects and rectifications:

If it shall appear to the IIML that any work has been executed with imperfect or unskilled workman or with materials of any inferior description, or of quality inferior to that contracted for, or otherwise not in accordance with the contract, the contractor shall on demand in writing from the IIML or his representative specifying the work, materials or articles complained of, notwithstanding that the same may have been inadvertently passed, certified and paid for forthwith rectify or remove and reconstruct that work so specified and provide other proper and suitable materials or articles at his own charges and cost, and in the event of failure to do so within a period to be specified by the IIML or his demand aforesaid, the Engineer-in-charge may on expiry of notice period rectify or remove, re-execute the work at the risk of Contractor and the cost shall be recovered from the Contractor. The decision of the IIML as to any question arising under this clause shall be final and conclusive.

1.2.7 Period of warranty:

The contractor has to carry out Comprehensive Maintenance for 24 months from the date of handing over. Nothing extra shall be paid for this.

1.2.8 Suspension of work:

The contractor shall suspend the progress of work on receipt of the written order from the IIML

In case of suspension of work:

a. The contractor shall during such suspension, properly protect and secure the works and carry out the instructions of the IIM.
b. IN such case the contractor shall be entitled for an extension of time equal to the period of every such suspension but no compensation for damages etc. shall be admissible on account of suspension of work.

1.2.9 Possession Prior to Completion:

The IIML shall have the authority to take possession of any completed or partially completed works. Such possession shall not be deemed to be acceptance of any work completed in accordance with the contract. If such prior possession delays the progress of works then the adjustment in the time of completion shall be done accordingly. The decision of the Engineer-in-charge regarding the extent of delay shall be final and binding.

1.2.10 Care of Works:

From the commencement to the completion of works, the contractor shall take full responsibility for the care of all works and in case any damage or loss occurs then the contractor shall repair and make good the same at his own cost so that on completion of the work, the same shall be in good order in every respect in accordance with the contract and to the satisfaction of the IIM.

1.3 Certificate and Payment

1.3.1 Schedule of Rates:

(i) The payments to be made to the contractor shall be as per the finalized rates in the tender documents and the rates of extra items finalized from time to time.

(ii) The rates finalized in the tender document shall remain firm till the completion of work, including extension of time, if any.

1.3.2 Mobilization Advance:

No mobilization advance shall be paid.

1.3.3 Billing:

The following percentage of contract rates for the various items included in the contract shall be payable against the stage of the work shown herein.
70% after the initial inspection and delivery at the site, in good condition, on a pro rata basis. 20% after completion of installation in all respects.
Balanced 10% will be paid after testing, commissioning trail run, and handing over to the department for beneficial use.
Final billing will only be processed after submission of the NOC.

1.3.4 Terms of Payment:

(i) The payment due to the contractor shall be made only in Indian Currency by Crossed Account Payee Cheque or RTGS. In no case, will the IIML be responsible if the cheque is misled or misappropriated by the contractor or his representatives.

(ii) The IIML reserves the right to carry out post payment audit and technical examination of the bills and work executed including all supporting vouchers etc. the IIML further reserves the right to enforce recovery of over-payment when detected. Similarly, if any under payment is discovered, the amount shall be paid to the contractor.

(iii) Wherever any claim for the payment against the contractor arises as per the contract, the same may be deducted from the bill of the contractor or from his security deposit.

(iv) 5% of the payable bill value will be retained from each bill as Retention money/ security deposit & shall be released on the satisfactory completion of the job after the defect liability period. No interest shall be paid on the security deposit amount.

(v) **Tax Deduction:** All statuary deductions like Income Tax, Works Contract Tax, E.S.I., P.F., entry tax, labour cess or any other government-imposed liability shall be borne by the contractor (as applicable at the time of execution of the job). Statutory deduction as per the govt. direction shall be deducted from each bill submitted by the contractor.

1.3.5 Provisional Completion Certificate:

When the contractor successfully completes the works as per the contract, he shall be eligible to apply for a provisional completion certificate in respect of the works. The IIML shall issue to the contractor the provisional completion certificate after verifying the completion documents submitted by the Engineer-in-charge and satisfying him/ user Department that the work has been completed in accordance with the contract document.
The work will not be considered as complete until all the temporary works, labour hutments, etc. are removed and the work site cleared to the satisfaction of the IIM.

If the contractor fails to comply with the requirements of the above on or before the date for the completion of the works, the IIML may, at the expense of the contractor, remove the tools and plants, hutment and surplus materials and dispose off the same and the contractor shall pay the amount of all expenses incurred.

1.4 Labour Laws and Safety Regulations

1.4.1 Labour Laws:

(i) Labour below the age of 18 years shall not be employed on the work.

(ii) The contractor shall not pay less than what is specified by the law to labours engaged by him on the work.

(iii) The contractor shall, at his own expenses, comply with all labour laws and the IIML shall not be responsible for any recovery/penalty imposed by the respective authorities for violating the labour laws.

(iv) If the contractor is covered under the Contract Labour (Regulation & Abolition) Act, he shall obtain a license from the licensing authority (i.e. the office of labour Commissioner) before starting the work, by payment of the necessary prescribed fee and deposit, if any shall be borne by the Contractor.

(v) The contractor shall furnish to the IIML, the details of the workers employed on the works.

(vi) The contractor shall comply with the provisions of the existing rules and regulations relating to labour laws.

(vii) The IIML shall on a report having been made by an inspecting officer as defined in Contract Labour (Regulation and Abolition) Act, 1980, have the power to deduct from the amount due to the contractor any sum required or estimated to be required for making good the losses suffered by a worker or workers by reason of non-fulfilment of the conditions of the contract for the benefit of the workers, or if deductions made from his or their wages which are not justified by the terms of contract or non-observance of the said regulations.

1.4.2 Minor/Fatal Accident on Duty:

For cases of minor/Fatal accident on duty not covered under compensation by IIML, the contractor shall have to compensate the affected person/family. The absence from duty, if takes place, due to such accident shall be considered as special leave and full payment shall have to be made for duration of such absence.

1.5 Safety Code

1.5.1 Safety and Protection:

The contractor shall adhere to safe construction practice and guard against hazardous and unsafe working conditions. While carrying out the work, the contractor should provide for;

(i) Safety of personnel engaged in the construction.

(ii) Protection and safety of works and materials during their progress.

(iii) Sanitary and hygienic conditions of working and living for his workers, as required by the IIM.

1.5.2 Use of Safety Gadgets:

The contractor shall have to ensure the availability and use of all desired safety gadgets like safety belts, helmets, goggles, hand gloves, gumboots, caution tape, barricading, warning signs etc.

1.5.3 First Aid:

The contractor shall provide first aid facilities for his employees and those of his sub-contractors. The requisite first aid box and medicines should always be available at the work site.

1.5.4 Preservation of Peace:

The contractor shall take precautions to prevent any riotous or unlawful behavior by his workers, for the preservation of peace and protection of inhabitants and the security of property in the neighborhood of the work.

1.6 Details of Work Execution

(i) The work shall be done in such a manner so as to clear workforce availability for other agencies working at the site.
(ii) The finish of work shall be as per the details given by IIM.
(iii) In general, the complete work is to be done as per Indian Standards and aesthetic norms as specified and detailed in the Tender.

1.7 Site

The site is located at IIM, Lucknow, IIM Road, Lucknow. The contractor shall be responsible for the accommodation of the manpower, and the movement of his men, materials, and equipment at his own cost.

1.8 Electricity & Water

Electrical power and water at one point are to be provided by the IIM free of cost. The Contractor will be responsible for getting electrical connectivity from the point specified by IIML to his work site, including supplying cables, connections, and other required items.

1.9 Contractor's Scope of Supply

All materials required for executing the jobs specified in the Bill of Quantities, inclusive of all tools, tackles, scaffolding, consumables, and testing equipment, shall be procured and supplied by the contractor at his own cost except for any items specified as IIML-supplied.

1.10 Liquidated damage charges

If the contractor fails to maintain the required progress to complete the work and clear the site on or before the contract or justified extended date of completion, without prejudice to any other right or remedy available under the law to the Government on account of such breach, pay as compensation the amount calculated

at the rates stipulated below may decide on the amount of accepted Tendered Value of the work for every completed week (as determined) that the progress remains below that or that the work remains incomplete. Compensation for the delay of work:

i. With a maximum rate @ 1% (one percent) per week of delay to be computed on a per-day basis based on the quantum of damage suffered due to the stated delay on the part of the Contractor.

It is provided always that the total amount of compensation for delay to be paid under this condition shall not exceed 10 % of the accepted Tendered Value of work.

1.11 Recovery from the Contractor

(i) If the contractor or his employees damage or destroy the property of the IIM, then the same shall be replaced/refunded by the contractor; the expenses may be recovered from his bill or security deposit.

(ii) All compensation and recoveries to be made as per the terms of the contract shall be deducted from the contractor's bill or security deposit.

(iii) Forfeiture of Security Deposit: Whenever any claim against the contractor is to be recovered then the same may be made from the security deposit (performance and retention or any other security available). If the contractor abandons the work or leaves the work incomplete, then the IIML has the right to forfeit the security deposit.

(iv) The contractor will make a fence around the area given for labour hutment to avoid unauthorized entry.

1.12 Service of Notice

All notices, consents, approval or other communication required to be given or served hereunder by either party hereto to the other party shall be in writing, and in English and shall be personally delivered to, left at, sent by registered post, email, courier, speed post or facsimile by either party to the other at the addresses mentioned herein below. Both parties agree that the facsimile transmission will not be used as a sole method for the communication of important notices such as any modification or termination.

(i) THE DIRECTOR
INDIAN INSTITUTE OF MANAGEMENT
PRABANDH NAGAR, IIMLROAD
LUCKNOW-226013

(ii) Notice to the Tenderer at the Address mentioned in the Tender Document

1.13 Warranty

The contractor shall perform the maintenance services as agreed to in the contract and in these general terms and conditions. In performing the said services, the contractor shall take all reasonable steps to maintain the equipment in proper operating condition. The contractor shall use trained and appropriately supervised personnel to perform the maintenance services shall be conducted during normal working hours, shall be sent at regular intervals and as frequently as the company thinks necessary, having regard to the age, nature, and condition of the Lift (but not less than 12 times per annum), a technician to systematically inspect, adjust and lubricant the parts of the Lift to the extent necessary

to maintain the Lift in satisfactory working order. The contractor will supply all lubricants (made as per the standards of the contractor). Necessary for this purpose.

Upon notification by the user of a breakdown or failure in the Lift, the contractor shall send his technical team within 8 hrs. (except beyond their control) to carry out necessary repairs in order to restore the Lift to satisfactory working condition. Otherwise, IIM, Lucknow may impose a penalty on the contractor on a per-day basis finalized by the competent authority of the Institute by assessment of loss incurred to the Institute due to delay in the rectification of the defect. Any breakdown that requires a special spare is not available and needs to be brought from the manufacturer factory or from a distant state then such breakdown should be restored within 7 days.

The contractor will carry out according to its standards customary annual safety test to examine all safety devices the contractor will not be required to make any other tests.

In performing the services, the contractor will replace (identical or equivalent item) or rectify at its option any components of the Lift rendered defective due to normal wear and tear and arising out of ordinary and reasonable use of the Lift except for such items and conditions which are excluded hereunder as particular and general exclusions. The parts which are replaced shall become the contractor 's property.

The equipment under contract will remain out of commissioning while the maintenance process is being carried out. No one will be allowed to use the equipment during this period.

APPENDIX-I

F. TECHNICAL SPECIFICATION OF LIFTS

1. Electric Supply

The available system of electric supply is 415 volts between phases and 230 volts between neutral & phase and neutral – 3 phase 4 wire AC 50 Hz system suitable for operation at ±10% of the rated supply voltage. In addition, illumination and control power required for Lifts and equipment shall be indicated in the tender. Power shall be provided at the location at a point to be indicated. All subsequent electrical systems shall be the responsibility of the Contractor. D.B/ Breakers to disconnect from the mains, etc., in the scope of the contractor.

1.2 Technical Particulars

The technical particulars of the Lifts are detailed in the enclosed schedule. The schedule indicates the capacity, travel, speed, number of openings, machine room, and hoistway sizes etc. Should any further information be required by the Contractor, the same can be obtained from the Engineer-in-Charge.

1.3 Driving Mechanism

1.3.1 Lift Machine

The Lift machine shall be suitable for a 415 volts 3-phase 50 Hz AC supply with a voltage variation of +/- 10% and shall be placed directly above the hoist way upon the machine room floor slab and steel beam furnished in place by the Contractor.

The machine shall have a high efficiency and low power consumption and shall be designed to withstand the peak currents in lift duties. Anti-vibration rubber pads of adequate thickness shall be used below the machine to reduce the noise and vibrations.

The Lift machine shall be worm gearless reduction type and shall consist of a motor, an electromechanical brake, worm gear, sheave shaft, and sheave, all completely mounted on a common bed plate. The worm shall be provided with ball bearings to take the end thrust and roller bearings shall be provided for the sheave shaft to ensure alignment and long bearing life. The hard alloy cast iron or steel sheave shall have rope grooves to ensure proper traction and minimum rope wear. Adequate means of lubrication shall be provided for all bearings and worm gears.

Means for manual operation of the lift car shall be made by providing a winding wheel suitably marked to indicate the direction of the movement to enable the lift car to be brought to the nearest landing. There shall be a warning display for switching off the electrical supply before the manual operations.

1.3.2 Brake

The electromagnetic brake shall be spring applied and electrically released. It shall come into action after the lift has come to a complete halt to hold the car in position. The brake shall operate automatically with the safety devices and release the brake manually such release requiring the action of manual force to move the lift in short stops.

1.3.3 AC Motor

The AC self-lubricating motor shall be suitable for Lift use with a high starting torque and low starting current. Thermostats shall be embedded in the stator

winding to indicate the temperature rise in the motor. The AC motor shall have class F insulation and be suitable for 210 starts per hour with a maximum temperature rise of 50°C over the ambient.

1.4 **Controls**

The Lift control shall be AC variable voltage variable frequency (A.C.V.V.V.F). The system shall control the starting, and stopping direction of motion, running of the lift motor and application of the brake and/or safety devices in the event of power failure or any other emergency. It shall be so designed as to ensure a smooth and constant acceleration and retardation under all opening conditions.
The contactor shall be wall/floor mounted, vertical totally enclosed cubicle type with hinged doors on the front and the rear to provide easy access to all components in the controller. The cubicle shall be well-ventilated such that the temperature inside never exceeds the safe limits of the components at ambient room conditions in the machine room.
The controller shall operate within the supply voltage variation of plus 10% to minus 20% of the nominal voltage.
a) Over current
b) Under voltage
c) Overvoltage
d) Single phasing
e) Phase reversal

The controller shall be designed to cut off the power supply, apply the brake and bring the car to a rest in the event of any of the above failures occurring. The Contractor must state clearly the forms of protection provided for each equipment. If any devices of the electro-mechanical type are used the same shall be equipped with arc chutes to prolong the life of contacts. Contractors must stipulate the type of devices used and the material of the contacts. Contractors must support such offers with complete details of experience, number of lifts installed and operational in India, collaboration for equipment design and manufacture etc.

1.5 **Hoist Ropes**

Round standard steel wire ropes as per Indian standards shall be used for Lift suspension. The number and size of the hoistway ropes shall be selected to ensure a proper factor of safety and adequate traction for the Lift. The governor ropes shall also be wire ropes. The Hoistway landing door shall be provided with an interlock such that:
a) It shall not be possible for the car to be started or kept in motion until all the landing doors and the car door are locked in the closed position.
b) It shall not be possible to open the landing door from the landing unless the Lift car is within the particular landing zone.
c) The car doors and hoist way landing doors open automatically as the car is stopping at a landing. The closing of the car and landing door must occur before the car is set in motion.

1.6 **Car Platform**

The car platform shall be of framed construction and designed on the basis of rated load.

1.7 **Car Enclosure**

The Lift car enclosure shall be as per the parameters enclosed in the schedule of quantities. The ceiling shall have an arrangement for a cabin fan mounted on the roof of the car. Indirect fluorescent lighting shall be provided to illuminate the car. The car enclosure shall be SS304 grade (min. 1.5mm thick), hairline finish with floor steel chequered plate.

Car Design: Car walls finished in stainless steel, front and doors in stainless steel, and SS chequered plate
Car Operating Panel: Stylish brushed SS finish car operating panel, visual call confirmation, dot matrix display, and car position indicator.
Landing doors: fully automatic landing doors in Stainless Steel 304 grade as per specs

1.8 **Car Door**

The car entrance for the Lifts shall be an automatic power-operated SS 304 type.

1.9 Hoistway Landing Doors

For the hoistway doors at each landing, two power-operated SS304 Telescopic Door opening horizontal sliding doors shall be provided to give a clear opening as indicated in the technical parameters. These shall be duly painted to the shade approved by the institute and suitable to the site conditions.

1.10 **Car and Hoistway Operations**

The car and hoistway doors shall be mechanically connected such that both move simultaneously for opening and closing. The hoistway landing door shall be provided with an interlock such that it shall not be possible for the car to be started or kept in motion until all the landing doors and the car door are locked in the closed position.
It shall not be possible to open the landing door from the landing unless the lift car is within the particular landing zone.
The car doors and hoistway landing doors open automatically as the car stops at a landing. The closing of the car and the landing door must occur before the car is set in motion.

2. Door Hangers and Tracks

The car and the landing door shall be provided with two-point suspension sheave-type hangers, complete with tracks, sheaves, and rollers, shall be steel with a moulded nylon collar, and shall include shielded ball bearings. Tracks shall be of a suitable steel section with a smooth surface. The landing doors shall be complete with headers, sills, frames etc as required

2.1 **Cabin Fan**

A noiseless cabin fan shall be included for all Lifts.

2.2 **Emergency Light**

An emergency light unit using a sealed maintenance-free battery power pack and fluorescent lamp to operate automatically in case of power failure shall be provided in each Lift car.

2.3 **Alarm Bell**

An emergency alarm bell, including wiring, shall be provided and connected to a plainly marked push button in the car operating panel.
The alarm unit shall be solid state siren type operated by 2 nos. 9-volt dry batteries to give a waxing and waning siren when the alarm button in the car is pressed momentarily.

2.4 **Operation Buttons**

The following operation buttons shall be provided

2.4.1 **In Each Lift Car**

Stainless steel return panels of suitable thickness shall be provided on each side of the door with the following flush-mounted controls on one side: -

a. Illuminated type push buttons corresponding to the floors served. Floor nos. on push buttons shall be numbered from 1 onward.
b. Door open button
c. Emergency call button connected to a bell for an emergency signal
d. Two-position key-operated switches for with attendant and without attendant operation
e. Ventilation fan ON/OFF switch
f. Built-in intercom of the pick-and-speak type
g. UP/DOWN direction display

2.4.2 **At Landing**

Illuminated type UP and DOWN push buttons at each intermediate landing and single illuminated type push buttons at terminal floors. The push buttons shall illuminate when the same is pressed to indicate that the call has been registered. The button shall remain illuminated until the call is answered.

2.5 Indications

2.5.1 **In Each Car**

The following indications shall be provided in the cars:

a. Digital car position indicator provided to indicate the landing at which the car is stopped or passing.
b. Illuminate UP|| and DOWN arrows on the position indicator to indicate the direction of travel.

2.5.2 **At all landings**

A digital car position indicator should be provided

2.6 **Safety Devices**

The following safety devices shall be provided:

2.6.1 **Self-Leveling**

The Lift shall be provided with a +/- 5mm self leveling accuracy feature of the two way automatic type. The self leveling device should automatically correct for under run, over run and rope stretch.

2.6.2 **Terminal & Final Limits**

Terminal limit switches shall be provided to slow down and stop the car automatically at the terminal landings, and final limit switches shall be furnished to automatically cut off the power, apply the brake, and stop the car travels beyond the terminal landings.

2.6.3 **Terminal Buffers**

Suitable spring buffers shall be used from existing Lift.

2.6.4 **Interlocking**

Adequate interlocking is to be provided so that the car shall not move if the landing doors are even partially open.

2.6.5 Car Safety and Governor

The car safety shall be provided to stop the car whenever excessive descending speed is attained. The safety will be operated by a centrifugal governor located at the top of the hoist way and connected to the governor through a continuous steel rope. Suitable

means shall be supplied to cut off power from the motor and apply the break on application of the safety.

2.6.6 **Fireman Switch**

Each Lift shall have a fireman switch with glass front for access by the fireman. The operation of this switch shall cancel all calls to this Lift and will stop at the next nearest landing if traveling upwards. The doors will not open at this landing and the Lift will return to the ground floor. In case the Lift is traveling downwards when the fireman's switch is operated it will go straight to the ground floor by passing all calls enroute. The emergency stop button inside the car shall be rendered inoperative.

3. **Gearless machine:**

The gearless machine shall consist of a motor, traction sheave and break-drum or brake disc completely aligned on a single shaft. Gearless machine shall be A.C. gearless with suspension sheave.

4. **Hand-winding wheel or handle:**

At times of lift stoppage due to any reasons, it shall be possible to move the lift car to the nearest landing manually. The manual operation shall be by means of winding. Wheel or handle mounted on the end of the motor shaft. The up or down direction of the movement of the car should be clearly marked on the motor or at suitable location. A warning plate written in bold signal red colour advising the maintenance staff to switch off the mains supply before releasing the break and operating the wheel is to be prominently displayed.

5. **Inter-communication system:**

Recommendations for the provision of either an emergency or a telephone inside the car but as a general experience it is seen that over a period of time these devices become inoperative due to one reasons or the other. Therefore, in order to have at least one device of communication functioning at all the times, as an alternative arrangement, provision of both i.e. telephone with minimum tow connections-one at the operator's room and other at guard room and the emergency signal with re-chargeable batteries as source of supply shall be made in the lift cars.

The device used for emergency signals should incorporate a feature that gives immediate feed-back to the car passengers that the device has worked properly and the signal has been passed on to the intended agency. This shall be achieved by pressing of button from control room which shall give audio signal to the passengers in the car.

6. **Emergency Power Supply for lift car:**

This shall include suitable secondary battery with trickle/boost charge arrangement and inverter power pack with necessary contactors for supplying the light fixtures in the lift car. The same battery shall also feed the alarm bell and communication equipment.

7. **Car landings:**

All the lift car landing shall be well lit to an illumination level of 150 lux and shall be free from obstructions. The control for landing lights and the sigh lights shall be tamper proof. Wherever stand by power supply is available, these lights shall be connected to standby circuits also.

8. **Instructions:**

Detailed instructions as specified for the guidance of passengers shall be prominently displayed inside the car by the contractor and outside the car at all landings by the department.

9. **Levelling:**

All lift (s) shall be incorporated with suitable floor leveling devices. In the case of lifts with automatic power-operated doors and with A.C. VVVF controller a separate level device for automatic leveling with leveling accuracy of ± 5mm shall be incorporated.

10. **Counter Weight Guards:**

Guards of wire metal/ mesh shall be provided in the lift pit to a suitable height above the pit floor to eliminate the possibility of injuries to the maintenance personnel.

11. **Guide shoes**:

Two numbers of guide shoes at the top and two numbers at the bottom shall be provided on the lift car and counter-weight.

12. **Type of shoes:**

For passenger lifts and bed-cum-passenger lifts

- For speed upto 1.0 mps, sliding guide shoes shall be used. Sliding guide shoes. For the car shall always be flexible, and for the counterweight solid guide shoes can be Used upto 1.0 mps.
- For speeds more than 1.0 mps roller guide shoes shall be used for the car and counterweight.

13. **Rope fastenings:**

The ends of lift ropes shall be properly secured to the car and counterweight hitch plates as the case may be with adjustable rope shackles having individual taper Babbitt sockets, or any other suitable arrangement. Each lift rope shackle shall be fitted with a suitable shackle spring, seat washer, shackle nut & shackle nut split pin.

14. **Guards for lift ropes:**

Where lift ropes run round a sheave or sheaves on the car and/ or counterweight of a gearless machine suitable guards shall be provided to prevent injury to maintenance personnel.

15. **Number & size of ropes:**

The contractor must indicate the number and size of lift ropes and governor ropes proposed to be used, their origin, type, ultimate strength, and factor of safety. The contractor should furnish a certificate of ropes from the rope manufacturers, issued by the competent authority.

16. **Safety Equipment:**

Every lift installation shall necessarily be provided with the following safety features: The safety gear shall be provided in accordance with IS (part-4-Sec.4):2001, each type of car safety shall be actuated by a speed governor (and as per the latest IS code:17900)

17. **Governor**:

The car safety shall be operated by a speed governor located overhead and driven by a governor rope suitable connected to the car and mounted on its own pulleys. The rope shall be maintained in tension by means of weighted or spring-loaded tension sheaves located in the pit. Governor shall be provided for lifts with a travel of more than 5.5 meters. The governor rope shall be not less than 6mm in dia and shall be made of steel or phosforbronze. These shall be in accordance with IS 17900. Governor for car safety gears shall be adjusted to actuate the safety gear at the following speeds: -

i. For rated speeds upto 1m/s maximum governor tripping speed shall be either 140 percent of the rated speed or 0.88 m/s, whichever is higher. For rated speed above 1m/s, the maximum governor tripping speed shall be 115 percent of the rated speed plus 0.25 m/s.

ii. Minimum governor tripping speed shall be 115 percent of the rated speed.

18. The governor shall be of "V" groove wheel design and only the wheel is stopped to actuate the car safety upon a pre-determined overspeed downward without damaging the rope.
19. The governor, rope and sheave shall be so located so as to minimize the danger of accidental injury to the equipment.
20. The requirements for field tests on car safety and the governor and for drop tests to sliding type can safeties shall be as per IS code.
21. Buffers –

- Buffers shall be oil resistant rubber pad type for speeds upto 0.25 mps and spring/ oil type for speeds upto 1.0 mps and only oil type for speeds higher than 1.0 mps.
- Buffers shall be suitable for installation in the space available. Buffers anchorage at pit floors shall be installed to avoid puncturing of waterproofing.
- Oil buffers of the car and counterweight shall be of the spring return type of gravity type.
- The partial compression of spring return oil buffers when the car is in level with terminal landing will not be acceptable.
- All buffers shall be tested at manufacturer's works and a copy of the test report shall be submitted.
- When the lift car rests on fully compressed buffers there shall be at least 60 cms clearance between the lowest point in its car frame and any obstruction in the pit exclusive of buffers and their supports. Similarly, when the lift cars cross head is 60cm from the nearest obstruction above it, no projection on the car shall strike any part of overhead structure.
- The contractor must indicate the name of buffer manufacturers, buffer stroke & certified maximum loads.

22. **Door Locks:**

Electro-mechanical door lock shall be provided for all the landing doors and they shall be such that the doors cannot open unless the car is at rest at the particular landing. It shall not be possible to move the car unless all the landing doors and the car door are closed and locked. This requirement however does not apply when the lift car is provided with automatic leveling devices and in such cases, it shall be permitted to move the car with both the doors open in the leveling zone for the purpose of leveling.

23. **Automatic- cum-attendant operation:**

Single automatic Push Button with/ without attendant – The operating devices for this operation shall incorporate in the car control panel, car buttons corresponding to the various landings served and a single landing button at each landing, all electrically

connected to the controller governing floor selection, direction of travel, acceleration, retardation etc.

This system shall be so arranged that when the car is not in use, on pressing a landing call button the car shall start automatically provided all the doors are closed. During the movement of the car and also when the car stops at the floor landing, other landing call buttons are inoperative for a predetermined time. The pressing of a car button shall automatically start the car and send it to the desired landing. In all cases, the starting of the car is contingent on the establishment of a landing door and car inter-lock circuits. To indicate the availability, or in use light shall be placed in the landing call button panel. When the light shall be "OFF" the passenger shall be able to call the car. In the case of the manually operated door, if the lift is standing at any landing with doors open (when not in use), the pressing of the landing call button shall ring a bell, fitted at the top of the car to attract the attention of the people soliciting their help for closing the lift door if any one of them happens to be near the lift in case of power operated doors, the landing and car doors shall be arranged to open automatically when the car is parked at landing after all the calls are served and the lift is parked at any landing. The doors can remain open or alternatively if desired, the car shall be arranged to close after a pre-determined time unless the closing is prevented or interpreted by the car doors re-opening device or the door open button.

The lift shall be suitable for dual operation with or without an attendant by the provision of a key operated transfer switch indicating" attendant" and "automatic" positions. During _attendant operations the landing call shall be disconnected from the control system and shall be connected to an annunciator in the lift car. The attendant shall then operate the car to answer the registered calls. This operation is recommended for single speed control lift for low rising building having a single lift installation.

24. **Simplex Selective-Collective operation with/ without attendant:**

Automatic operation by means of one button in the car for each landing level served and by up and down buttons at the landings, wherein all stops registered by the momentary actuation of the car made defined under non-selective Automatic Operation but where in the stops registered by the momentary actuation of the landing buttons are made in the order in which the landing is reached in each direction of travel (irrespective of the sequence in which the buttons have been actuated). With this type of operation, all up-landing calls are answered when the car is traveling in the up direction and all down-landing calls are answered when the car is traveling in the down direction, except in the case of the uppermost or lowermost calls which are answered as soon as they are reached in-respective if the direction of travel of the car.

25. **Automatic selection of traffic programme:**

The group supervisory control continuously examines traffic conditions in the building and automatically puts into operation the programme which can best cope with the demand at any particular time. This is fully automatic and requires no supervision or attendant. To suit the traffic demand in the building, suitable traffic programmes can be selected for inclusion in this control.

26. **Controlling Equipment:**

The movement of the car shall be electrically controlled by means of a controller located in the machine room.

27. **Control circuits:**

The control circuit shall be designed to the type of lift specified for safety operation. It shall not be possible to start the car unless all the car and landing doors are fully closed and landing doors locked. The circuit shall have an independent fuse protection for fault and over loads and be arranged so that earth fault or an open circuit shall not create unsafe condition. The circuit shall be so arranged that for the stoppage of the car at specified landing or for actuation of a contactor by emergency switches or operation of safety gears the system shall not depend upon the completion or maintenance of an electrical circuit to cut off power supply and apply the brakes. This requirement is not applicable to dynamic braking and speed control devices.

28. **Terminal Boards:**

All wiring for external control circuits shall be brought to a terminal board with means of identification of each wire. Metallic/plastic identification tags shall invariably be provided. All connections of wires to terminal boards shall be adequately clamped or screwed.

29. **Auxiliary Switches:**

i. Maintenance switch on top of the car

For purpose of inspection and maintenance, maintenance switch shall be provided on top of the car. The control circuitry shall be so arranged that in the event of the operation of this switch:

a. The car speed shall be less than the rated speed not exceeding 0.85 meters/sec.
b. The car movement shall be possible only on the application of the continuous pressure on a button. It shall be so mounted to prevent any inadvertent operation.

ii. Fireman Switch:

Fireman switch with glass to break for access shall be provided at ground or main floor for all the lifts. The operation of this switch shall isolate/ or cancel all calls to all the lifts and the lifts will stop at the next nearest landing if traveling upward. The doors will not open at this landing and the lifts will start traveling to ground floor. If these were already traveling down, they will go straight to ground floor direct without stopping enroute.

iii. Inspection facility:

An inspector‘s change over switch and set of test buttons shall be provided in the controller. Operation of the inspector‘s change over switch shall make both the car and landing buttons inoperative and permit the lift to be worked in either direction from machine room for test purposes by pressing corresponding test buttons in the controller. It shall not however interfere with the emergency stop switches inside the car or on the top of the car.

iv. Safety line indicators:

If specified visual telltale lights may be provided to monitor the conditions of faults in the safety line of the lift for easier fault finding. These indicators will remain lit when safety circuits are normal.

One indicator shall be provided for each safety on the controller. If any indicators fail to light up as the lift proceeds in its sequence of operation, there shall be a visual indication of the safety line open circuit and also its location for easier fault finding.

30. **Control Wiring:**

a. Wiring in machine room:
Power wiring between the controller and main board controller to various landings shall be done in heavy gauge conduit or metal duct & shall conform to I.E. Rules 1956 and CPWD Specifications for electrical works. The following general principles shall be followed in siring:

b. i) Control cables carrying DC and power cables carrying AC shall not be run in the same conduit or metal duct, and they shall be laid as per I.E. rules.

ii) A metal duct with a removable inspection cover shall be preferred.
iii) in case of control cables, also the harness shall be separate as far as feasible for separate functions and laid separately in a suitably dimensioned metal duct or in a separate conduit, such as the signalling, locking, lamp indication, and safeties. Control cables for different voltages in the lift installation works should be laid as per IE. Rules.

c. At least 5 percent with a minimum of 5 unconnected spare wires shall be available out of all the lines to be provided in the wiring harness from the midway junction box to the machine room.

d. There shall be a master isolating switch Fuse associated with the controller heavy-duty load break, quick make, quick break type TP&N preferably interlocked with the controller cabinet door. The isolator handle shall have a provision for external locking in the off position.
All relays shall be suitable for lift service and shall incorporate adequate
Contact wipe for reliable operation. Relays shall operate satisfactorily between 80 percent and 110 percent of their voltage.
Main motor contactors shall be suitable for A.C. duty. Tenderer shall be required to furnish full details of make, type, applicable standard, voltage, and current rating, duty class, type, and routine tests done, etc., on contactors and relays. Copies of type test certificates and other test certificates shall also be furnished by the successful tenderer.
All cables shall be with copper conductors and flame-retardant or PVC-insulated of appropriate size. The cables feeding the motor and in heavy current flow paths shall be so selected that the size matches the protecting fuses and will not result in more than 2 percent voltage drop from the main board to the terminals of the motor. Control cables shall not be less than 0.5 sq. mm. or equivalent if stranded; where installation of heavy gauge conduits presents difficulties, short lengths of flexible conduits will be permitted but effective electrical continuity and earth bonding shall be ensured. Ferrules shall be slipped at the ends of all cables as per standard control wiring practice. All terminal blocks shall be suitably marked.

31. **Trailing Cables:**

A single trailing cable for lighting control and signal circuit is permitted, if all the conductors of this trailing cable are insulated for maximum voltage running through any one conductor of this cable. The lengths of the cables shall be adequate to prevent any strain due to the movement of the car. All cables shall be properly tagged by metallic/plastic tags for identification.
Trailing cables shall run from a junction box on the top of the car to a junction box located in the shaft near the midpoint of travel, and from these junction boxes, conductors shall be run to the various locations
Trailing cables exceeding 30 meters in length shall run so that the strain on individual cable conductors will be reduced to a minimum and the cables are free from contact with the car counterweight, shaft walls or other equipment.
Trailing cables exceeding 30 meters in length shall have steel supporting fillers and shall be suspended directly by them without rubbing over other supports.
Cables less than 30 meters in length shall have no metallic fillers and shall be suspended by looping cables around supports of porcelain spool type or equivalent.

13 per cent of the total capacity, subject to a minimum of 5 wires, shall be available unutilized in the trailing cable, suitably distributed between various functions.

32. **Earthing:**

Metal frames and all metal work of the lift controller frame etc., shall be earthed with double earth leads taken to the earth bar. Looping shall be permitted if such routing is feasible. All other individual metallic frameworks of components etc., shall be loop earthed.

33. **Lift Rope Compensation:**

The lift rope compensation for lift travel shall be provided for lift travels beyond 40m in all cases.

34. **Automatic Rescue Devices (ARD):**

The automatic rescue devices (ARD) meant for the purpose of bringing the lift car to the nearest landing doors are being used selectively and is generally restricted to commercial buildings having heavy traffic. However, frequent power failures being a common phenomenon, the provision of ARD shall be made in all the lifts in public buildings. The ARD shall have the following specifications:

i. ARD should move the Lift to the nearest landing in case of a power failure during normal operation of the Lift.

ii. ARD should monitor the normal power supply in the main controller and shall activate the rescue operation within 10 seconds of normal power supply failure. It should bring the Lift to the nearest floor at a slower speed than the normal run. While proceeding to the nearest floor, the Lift will detect the zone and stop. After the operation is completed by the ARD, the Lift is automatically switched over to normal operation as soon as the normal power supply resumes.

iii. In case the normal supply resumes during ARD in operation, the Lift will continue to run in ARD mode until it reaches the nearest landing and the doors are fully opened. If the normal power supply resumes when the Lift is at the landing. It will automatically be switched to normal power operation.

iv. All the lift safeties shall remain active during the ARD mode of operation.

v. The battery capacity should be adequate so as to operate the ARD at least seven times a day.

APPENDIX – II

Technical Specification of Lift in Tabular Form

S. No.	Features		Technical Detail
1	Type of Lift	:	Gearless Machine Room
2	No. of Lift	:	1 Nos.
3	No. of Persons/Loads	:	10 Person: 680 Kg appx.
4	Rated Speed	:	1 Mps
5	Travel in Meters	:	9.5 meters approx. (Visit the site for specifics)
6	No. of Floors Served	:	Ground + First Floor
7 [a]	Inside size of Lift Well	:	Available well size is about 1650 x 2000 mm (Also check on site)
7 [b]	Pit Depth	:	1600mm
8	Clear the inside size of the Lift Car	:	about 1300 x 1350 x 2200 mm (approx.)
8[a]	Car material	:	stainless steel 304(1.2mm) hairline finish
9	Position of counterweight	:	As per the convenience
12 [a]	Type of control	:	Microprocessor-based AC variable Voltage variable frequency
12 [b]	Type of operation	:	Simplex Selective Collective Operation with/without attended
12 [c]	Potential-free Contacts	:	Potential free contacts for each floor position and up and down movement of the lift shall be provided in the controller, which can be used for building an automation system
13	**Car entrance door**	:	
[a]	Numbers	:	One
[b]	Size	:	800 x 2000 mm
[c]	Type of Doors	:	Telescopic Door opening/Side Opening
[d]	Car open in front only	:	In front only
[e]	Door Operation		Minimum 2 Lakhs
14	Construction Design and Finish of a Car	:	Stainless Steel
	Flooring	:	SS chequered plate
15	Hand Rails	:	Rear side at least 30mm dia.
16	Ventilation	:	Cross-flow fan /Blower
17	Lighting in a car	:	LED with auto Cut Out
18	Lighting in Well	:	LED Type
19	Braille Button	:	Mandatory
20	Motor	:	with 180 starts per hour
21	Features Required: Manual Rescue System without Battery	:	Mandatory
22	**Type of Signal Systems**		
[a]	Digital floor position indicator in the car and at all landings.		
[b]	Travel direction indicator in the car and at all landings.		
[c]	Gongs and visual indications on all landings for the pre-arrival of cars		
[d]	Overloading warning audio and visual indicator inside the car		
[e]	Battery-operated alarm bell and emergency light		
[f]	Car operating panel with fade-proof luminous buttons in the car, and with an intercom		
[g]	Luminous hall button at all landings		
[h]	Fireman's switch at Ground floor		

23	**Landing Entrance**		
[a]	Location of landing in different floors	:	All doors on the same side
[b]	Size	:	800 x 2000 mm
[c]	Type of doors	:	Telescopic Door opening/Side Opening
[d]	Car door enclosure	:	Power-operated Telescopic Door opening sliding door stainless steel 304(1.2mm) hairline finish
[e]	Landing door enclosure	:	Power-operated Telescopic Door opening sliding door stainless steel 304(1.2mm) hairline finish
24	Electric supply	:	[a] Power: 415V a.c., 3-phase, 50 Hz, 4-wire system
			[b] Lighting: 230V, 50Hz ac
25	Is a neutral wire available for control circuits	:	Yes
26	Type of Doors	:	Car: Telescopic Door opening Landing doors: Fire rated upto 60mins, Telescopic Door opening
27	Construction type	:	Gearless Machine Room
28	Emergency Car	:	Car lighting that turns on immediately when power fails, Lighting providing a minimum level of lighting within the car.
30	Emergency Landing Device (Automatic rescue Device) with audio announcer	:	Upon power failure, a car equipped with this function automatically moves and stops at the nearest floor using a rechargeable battery, and the doors open to facilitate the safe evacuation of passengers with an audio announcer. Dry type Battery (maintenance-free) should be used for power backup.
31	Automatic Door Speed Control	:	Door load on each floor, which can depend on the type of hall doors, is monitored to adjust the door speed, thereby making the door speed consistent throughout all floors.
32	Door Load Detector	:	When excessive door load has been detected while opening or closing, the door's Door Load Detector immediately reverses.
33	Door Nudging Feature — With Buzzer	:	A buzzer sounds and the doors slowly close when they have remained open for longer than the pre-set period.
34	Multi-beam Door Sensor	:	Multiple infrared-light beams cover at least 2/3 of the door height of the doors to detect passengers or objects as the doors close.
35	Reopen with Hall Button	:	Closing doors can be reopened by pressing the hall button corresponding to the traveling direction of the car.
36	Repeated Door-close	:	Should an obstacle prevent the doors from closing, the doors will repeatedly open and close until the obstacle is cleared from the doorway.
37	Safety Door Edge	:	The sensitive door edge detects passengers or objects during door closing.
38	Automatic Bypass	:	A fully-loaded car bypasses hall calls in order to maintain maximum operational efficiency.
39	Car Fan Shut Off — Automatic	:	If there are no calls for a specified period, the car ventilation fan will automatically turn off to conserve energy.
40	Car Light Shut Off — Automatic	:	If there are no calls for a specified period, the car lighting will automatically turn off to conserve energy.
41	False Call Cancelling— Automatic	:	If the number of registered car calls does not correspond to the car load, all calls are cancelled to avoid unnecessary stops.
42	False Call Cancelling— Car Button Type	:	If the wrong car button is pressed, it can be cancelled by quickly pressing the same button twice.
43	Overload Holding Stop	:	A buzzer sounds to alert the passengers that the car is overloaded. The doors remain open, and the car will not leave that floor until

			enough passengers exit the car.
44	Safe Landing	:	Service: If a car has stopped between floors due to some equipment malfunction, the controller checks the cause, and if it is considered safe to move the car, the car will move to the nearest floor at a low speed, and the doors will open.
45	Basic Announcement Electronic	:	A synthetic voice (and/or buzzer) alerts Passengers inside a car that Lift operation has been temporarily interrupted by overloading or a similar cause. (Should be in Hindi & English language.)
46	LCD / LED Position Indicator	:	A 5-7-inch LCD / LED for car operating panels shows the date and time, car position, travel direction, and Lift status messages.
47	Hall LCD / LED Position Indicator	:	Display 5-7-inch LCD / LED for Lift halls shows the date and time, car position, travel direction, and Lift status messages.
48	LOP (Landing operating panel)	:	high-visibility digital displays, push-button options at each level to see the lift and view its real-time location or status
49	Provision of an intercom, including wiring with centralized features.	:	Yes
50	Provision of the floor announcement with all-time music.	:	Yes
51	Provision of CCTV wiring (without a camera)	:	Yes
52	Provision of auto-correction of Phase reversal.	:	Yes

ANNEXURE – A

DECLARATION OF SPARES/ SERVICES SUPPORT: Manufacturer's Authorization

Date: _____

To:

_____

WHEREAS

We _____ (OEM Name and Address), who are official manufacturers of _____ (Lift Component Description), having factories at _____, do hereby authorize _____(Bidder Name) to submit a Bid the purpose of which is to provide the following goods, manufactured by us _____ (Lift Component Description). We hereby authorize M/s ---------- (Bidder Name) for Design, Supply, Installation, Testing & commissioning of 01 Nos 10 passenger/service gearless machine room Lifts in replacement of 01 old freight lifts in the Student Mess at IIM, Lucknow. We hereby confirm our full guarantee & warranty, including support of spares & services for a minimum period of 15 to 20 years from operational acceptance.

Seal & Signature with Date

FINANCIAL BID

FINANCIAL BID

BILL OF QUANTITY
(RATE ARE INCLUSIVE OF GST)

SN	DSR 2025 Item No.	Item Description	Unit	Qty	Rate (Rs.)	Amount (Rs.)
A		**LIFT WORK**				
1	MR	Design, Fabrication, Supply, Installation, Testing, and commissioning of Electric Traction Type fully automatic Gearless Machine Room Passenger/service Lift having SS Enclosure (Grade 304) with AC variable voltage & variable frequency drive unit suitable for operation on 415 +/- 10 % V, 3 Phase, 50 Hz. AC supply, having a speed of 1.00 MPS, power operated SS Telescopic Door opening/Side Opening type car & landing doors, electro-magnetic brake system, operating panel with luminous buttons, overload warning indicator, battery operated alarm bell, emergency light, intercom suitable for hook up to Facility's EPABX, infrared red sensing door protection for full height (min 2200mm height) & mechanical safety by the pressure sensor, reverse phase relay on controller, fire man's switch at ground floor, digital car positions indicator in car with up / down direction indications, light fixtures, ventilation fan, landing sill, main beam in shaft for machine, pit ladder, provision of lighting in Lift shaft, CCTV provisioning etc. complete with all accessories serving different floors in the lift shaft along with Automatic Rescue Device. Apart from the hardware part, the programming of software for running must be included. (ARD) with dry maintenance-free sealed batteries and Manual Emergency Rescue Device with or without lever-operated (independent of any battery system), complete as required and as per enclosed specifications for each MRL Lift with the following characteristics i) Lift Type - Passenger ii) Capacity- minimum 10 passengers, 680 Kg iii) Stops and Openings- 2 No v) Travel Speed- 1.0 mps	No	1	Rs.1,889,015.00	Rs.1,889,015.00
B		**ELECTRICAL WORK**				
2	1.17.2	Supplying and drawing 2 x 1.5 sq.mm FRLS/HFFR PVC insulated copper conductor, single core cable, in the existing surface/recessed steel/PVC conduit as required.	Metre	30	Rs.77.00	Rs.2,310.00
3	1.21.1	Supplying and fixing 20 mm dia. medium class PVC conduit along with accessories in surface/recess, including cutting the wall and making good the same in case of recessed conduit, as required.	Metre	30	Rs.151.00	Rs.4,530.00
4	1.24.1	Supplying and fixing 5/6 A modular switch on the existing modular plate & switch box, including connections, as required.	Each	2	Rs.121.00	Rs.242.00
5	1.24.4	Supplying and fixing 3-pin 5/6 A modular socket outlet on the existing modular plate & switch box, including connections, as required.	Each	2	Rs.136.00	Rs.272.00

6	2.3.2	Supplying and fixing 8-way, double door, single pole and neutral, sheet steel MCB distribution board, 240V, on surface/recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted, including earthing etc. as required (excl. MCBs/incomer).	Each	1	Rs.2,773.00	Rs.2,773.00
7	2.10.1	Supplying and fixing 5A to 32A rating, 240/415V, 10kA, 'C' curve, miniature circuit breaker (MCB) suitable for inductive load, single pole, in the existing MCB DB, complete with connections, testing and commissioning etc. as required.	Each	4	Rs.285.00	Rs.1,140.00
8	MR	Supply, Installation, Testing and Commissioning of maintenance-free Chemical Earthing Electrode complying with latest IS 3043/IEC/IEEE — 3m long, 17mm dia, high-tensile copper-bonded steel rod (min. 250 microns electrolytic copper), with min. 10 kg soil-enrichment compound, backfilled with good-quality soil, complete.	Each	2	Rs.7,670.00	Rs.15,340.00
9	MR	Supplying and laying 8SWG Copper Wire for earthing	Metre	15	Rs.413.00	Rs.6,195.00
10	1.27.1	Supplying and fixing GI box, 1 or 2 module (75mm x 75mm), along with modular base & cover plate, for modular switches in recess, as required.	Each	2	Rs.354.00	Rs.708.00
11	MR	Supplying and fixing of 10/12W Bulkhead light (bare-lamp fixture, e.g. machine room / lift pit / shaft lighting), including connections, as required.	Each	5	Rs.220.00	Rs.1,100.00
12	2.2.1 + OEM box	Supply, Installation, Testing and Commissioning of 100A, 16kA, TPMCCB as main incomer isolator, complete with its own sheet-steel enclosure/cover box (surface mounted).	Each	1	Rs.5,113.00	Rs.5,113.00
13	MR	Supplying and fixing of 300mm four blade Exhaust Fan for machine room, including connections, as required.	Each	1	Rs.2,500.00	Rs.2,500.00
C		**CIVIL WORK**				
14	15.7.4	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge	Cum	0.525	Rs.2,060.20	Rs.1,081.61
15	15.2.2	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in – charge: for nominal concrete 1:4:8 or leaner mix.	Cum	0.525	Rs.1,503.60	Rs.789.39
16	15.10.2	Dismantling marble work manually/ by mechanical means including stacking of serviceable and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge : In cement mortar	Cum	0.105	Rs.2,877.75	Rs.302.16
17	11.49A	Providing and laying full body vitrified tile in floor of minimum thickness 15 mm with water absorption less than 0.06% and conforming to 1S:15622, of approved make, brand and manufacturer, laid on 20 mm thick base cement mortar 1:4 (1 cement: 4 coarse sand) jointing with grey cement slurry @3.30 kg / sqm including grouting the joints with white cement and matching pigments etc. The slab must be cut with the zero-chipping diamond cutter only. Laying of slab will be done with the help of notch trowel, wedge, clips of required thickness,	Sqm	4.725	Rs.3,623.95	Rs.17,123.16

		vacuum cups for lifting, leveling system and rubber mallet for placing the slab gently and easily. Size of tile 800x2400 mm of all colours and shades.				
18	13.5.2	Cement plaster work with coarse sand: 15 mm cement plaster of mix: 1:6 (1cement: 6coarse sand).	Sqm	6.3	Rs.395.35	Rs.2,490.71
19	8.8.1.3	Providing and fixing expansion hold fasteners on C.C. /R.C.C./Brick masonry surface backing including drilling necessary holes and the cost of bolt etc complete. Wedge expansion type: Fastener with threaded dia 12 mm	Each	15.75	Rs.61.70	Rs.971.78
20	5.9.1	FORM WORK: Centering and shuttering including strutting, propping etc. and removal of form for : Foundations, footings, bases of columns, etc. for mass concrete.	Sqm	2.625	Rs.284.85	Rs.747.73
21	5.3	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chaijjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand(zone-lll) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).	Cum	0.105	Rs.11,505.50	Rs.1,208.08
22	5.2.2	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement: 1:1.5:3 (1 cement : 1.5 coarse sand(zone-lll) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).	Cum	0.21	Rs.10,852.95	Rs.2,279.12
23	5.22A.6	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level. TMT bars FE 500D	Kg	21	Rs.107.85	Rs.2,264.85
					TOTAL	Rs.1,960,496.58

Note: The contractor is advised to survey the actual site for assessment of critical application if any & accordingly quote the rates percentage.

Signature with seal of the Contractor