

**JAWAHARLAL NEHRU ARCHITECTURE & FINE ARTS University**  
**MAVAVEER MARG, MASAB TANK, HYDERABAD -28.**

TENDER NOTICE TENDER: S/771/P.C/2018 Dated: 21/4/2018.

**NOTICE INVITING TENDER**

Sealed item rate tender is invited on behalf of Registrar Jawaharlal Nehru Architecture & Fine Arts University for the following work and will be received at the tender box at Ground floor, Office of the Registrar, JNAFAU, Mahaveer Marg, Masab Tank, Hyderabad up to 3:00PM on the 25/05/2018, from Original Equipment Manufacturers or their authorized channel partner/dealers/ contractors.

Name of Work	Estimated Amount (Rs. Lakhs)	Earnest Money Deposit (Rs.)	Cost of Tender Document (Rs.)	Time Allowed for completion
Supply, Installation, Testing, commissioning and Comprehensive maintenance of 02 lift of CFA & SPA buildings at JNAFAU Campus, Hyderabad. G+5 G+3 (6 persons)	26:00	5% on E.A.	500	4 months

The cost of tender and EMD shall be payable in the form of demand draft or pay order of any Nationalized or Scheduled Bank issued in favor of —The Registrar, JNAFA University, Hyderabad II.

Tenders (Technical Bids) will be opened at 3pm on 28-04-2018.

**Eligibility Criteria for the Tenderer's:**

(i) The tenderer should be Original Equipment Manufacturer (OEM).

OR

(ii) The tenderer should be authorized channel partner/authorized dealer/ authorized contractor being authorized by OEM.

In case of (ii) above, the tenderer should have satisfactory completed jobs of similar nature and capacity not less than 10 lifts of 4/5 levels during the last consecutive five years, The documentary proof for the same and satisfactory work completion certificates from at least 02 users shall be submitted along with tender document.

The OTIS, KONE, JOHNSON, MITSUBISHI and SCHINDLER makes are only approved for this tender.

The bidder may download the —Tender Documentll available on the web site of [www.jnafau.ac.in](http://www.jnafau.ac.in) and shall submit the draft of Rs. 500.00 in favour of The Registrar, JNAFA University, Hyderabad along with the Tender Document

**JAWAHARLAL NEHRU ARCHITECTURE & FINE ARTS University**  
**MAVAVEER MARG, MASAB TANK, HYDERABAD -28.**

**DETAILED NOTICE INVITING TENDERS**

Date of issue of S/771/P.C/2018 Dated: 21/4/2018.

Sealed item rate tender is invited on behalf of Jawaharlal Nehru Architecture & Fine Arts University for the following work and will be received at the tender box at Ground floor, Office of the Registrar, JNAFAU, Mahaveer Marg, Masab Tank, Hyderabad upto 3:00PM on the 25-05-2018, from Original Equipment Manufacturers or their authorized channel partner/ dealers/ contractors.:

Name of Work	Estimated Amount (Rs.)	Earnest Money Deposit (Rs.)	Cost of Tender Document (Rs.)	Time Allowed for completion
Supply, Installation, Testing, commissioning and comprehensive maintenance of 02 lifts of CFA & SPA buildings at JNAFAU Campus, Hyderabad.	26,00000/-	5% E.A	500	4months

The site for the work is available within the University campus.

The tender shall be accompanied by earnest money of ` Rs.50,000/- in the form of Demand Draft or Pay Order of any Nationalized or Scheduled Bank issued in favour of —The Registrar, JNAFA University, Hyderabad II.

**1. Eligibility Criteria for the Tenderers:**

(i) The tenderer should be Original Equipment Manufacturer (OEM)

OR

(ii) The tenderer should be authorized channel partner/ authorized dealer/ authorized contractor being authorized by OEM.

In case of (ii) above, the tenderer should have satisfactory completed jobs of similar nature and capacity not less than 10 lifts of 4/5 levels during the last consecutive five years, The documentary proof for the same and satisfactory work completion certificates from at least 07 users shall be submitted along with tender document.

2. The OTIS, KONE, JOHNSON, MITSUBISHI and SCHINDLER makes are only approved for this tender.

3. No two or more concerns in which an individual is interested as a proprietor and/or partner shall tender for the execution of this work. If they do so, all such tenders shall be liable to be rejected.

4. The bidder may download the — Tender Document till available on the web site of JNAFAU ([www.jnafau.ac.in](http://www.jnafau.ac.in)) and shall submit the draft of Rs. 500.00 in favour of **Registrar, JNAFAU, Hyderabad** along with the Tender Document. The cost of tender document shall be payable in the form of demand draft or pay order of any Nationalized or Scheduled Bank issued in favour of The Registrar, JNAFA University, Hyderabad .

5. Tenderers are advised to inspect and examine the site and its surroundings etc. and satisfy themselves before submitting their tender as to the nature of the ground and sub-soil, and the means of access to the site, the accommodation they may require and in general shall themselves obtain all the necessary information as risks, to contingencies and other circumstances which may influence or affect their tender. Tenderer shall be deemed to have full knowledge of the site whether he inspects it or not a no extra charges consequent on any misunderstanding or otherwise shall be allowed. The tenderer shall be responsible for arranging and maintaining at his own cost all the material, tools & plants, water, electricity, access facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract document. Submission of tender by the tenderer implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and local conditions and other factors having a bearing on the execution of the work.

6. The tenderer should quote his rates in the schedule of quantities given in Annexure A, A1 and A2 of Tender. Rate should be expressed in figures as well as words. No percentage above or below the schedule shall be quoted.

7. The rates quoted in the tender will not be altered by the contractor during the term of contract.

8. The tenderers shall submit tenders in three sealed envelopes 1, 2 & 3. The first Envelope shall contain the Tender Cost & Earnest Money deposit and the second envelope shall contain the Technical Document and the third shall contain the Financial Documents. In case 1st envelope is not annexed or Tender Cost and or Earnest Money Deposit (EMD) is not found in proper form, the second and third envelope will not be opened at all.

9. The tenders (Technical bids) shall be opened on 11-05-2018 at 3.00pm hours in the presence of tenderers or their duly authorized agents who may choose to attend.

10. Conditional tenders are liable to be rejected. The tenders shall also be rejected if not Properly sealed.

11. The validity of the tender shall remain open for acceptance for a period of ninety days from the date of opening of financial bids, If any tenderer withdraws his tender before the said period or makes any modification in the terms and conditions of the tender which are not acceptable to the University, then the University shall without prejudice to any other right or remedy be at liberty to forfeit the EMD.

12. In the event of contradictions, if any, between specifications and codes and practice the decision of the JNAFA University shall be final and binding on the tenderer .

13. Work shall be done night and day without extra charge, if necessary.

14. Water and electricity shall be provided free of cost at site.

15. Contractors shall insure the whole work against fire, and third party.

16. The competent authority on behalf of JNAFA University does not bind himself to accept the lowest or any other tender, and reserves to himself the authority to reject any or all of the tenders received without assigning of any reason. All tenders in which any of prescribed conditions are not fulfilled or any condition including that of conditional rebate is put forth by the tenderer shall be, summarily, rejected.

17. Canvassing whether directly or indirectly in connection with tenders is strictly prohibited and the tenders submitted by the tenderers who resort to canvassing will be liable to rejection.

18. The competent authority reserves to himself the right of accepting the whole or any part of the tender or distributing the work between one or more tenderers and the tenderer shall be bound to perform the same at the rate quoted.

19. This tender notice shall form part of the contract document. The tenderer whose tender has been accepted by the competent authority hereinafter referred to as the "contractor" shall furnish the Performance Security Deposit equal to 5% of the tendered amount in the form of Demand Draft of any Nationalized Bank issued in favour of Registrar JNAFA University, Hyderabad within seven days from the date of letter of acceptance. If the successful tenderer fails to furnish the Performance Security Deposit within the stipulated period his EMD shall be forfeited.

20. The successful tenderer shall furnish Performance Security Deposit within seven days and sign the contract consisting of the notice inviting tender, all documents including general conditions, specifications and drawings, if any, as issued at the time of invitation of tenders and acceptance thereof together with any correspondence leading thereto. If the successful tenderer fails to sign the contract within the stipulated period his EMD shall be forfeited.

21. The performance security deposit shall be refunded after expiry of defects liability period is (18 months from the date of initial supply of materials or 12 months from the date of completion of each elevator) as mentioned in quotation of the contract.

22. Security Deposit @5% of the gross amount of the bill shall be recovered from the running bills of the contractor till the sum along with the sum already deposited as earnest money will amount to security deposit of 5% of the tendered amount of the work or cost of actual work executed whichever is more.

23. Payment shall be made to the contractor as per payment schedule given in Annexure C 1 and C2 of Tender.

24. Comprehensive Maintenance Contract (CMC) The contractor, whose tender for supply, Installation, Testing & commissioning of Lifts is accepted shall maintain the lifts comprehensively for a period of 5 years from the date of expiry of "defects liability period" of (18 months from the date of initial supply of materials or 12 months from the date of completion of each elevator.)

**Scope of Work:**

The scope of comprehensive maintenance of Lifts, shall inter alia include:

(i) Monthly routine maintenance and check up of the machine, controls, ropes, breaks, control cables and other mechanical and electrical parts and appliances.

(ii) Repair and/or replacement of the worn-out parts at his own cost for ensuring smooth service.

(iii) All the replaced parts shall conform to relevant I.S. codes there under:

(iv) Check thoroughly each component part of the Lift at the end of each year and carry out such repair, maintenance and replacement as may be considered necessary as a result of annual inspection.

(v).Get the lifts inspected by any local authority or Govt. agency if required under rules, and get the deficiencies, pointed out, removed.

Certificate of safety:

The contractor shall submit a safety certificate of lifts within 10 days of the last day of the annual inspection of the lifts.

25. Availability of Authorized Representative The contractor shall ensure availability of his authorized representative at Hyderabad to receive emergency calls and take remedial actions. The representative should attend the call immediately to ensure the restoration of the services promptly. If shutdown of any lift continues for more than 3 days a penalty of Rs. 1000/- per day per lift for delay beyond 3 days shall be imposed and the amount of penalty shall be recovered from the quarterly bills, Security Deposit or any other sum due to the contractor.

Responsibility of Accident and Hazards: The contractor shall be responsible for any accident or hazard that take place during the maintenance period of 5 years. He shall also be responsible for payment of compensation and penalties payable to effected parties as a result of legal action. He shall also be responsible for repairs and replacement of damaged the lift and restore services within 7 days failing which penalty @ Rs. 1000/- per day per lift shall be imposed and recovered from bills / deposit or any other sum due to the contractor.

26 . Specifications:

Technical Specifications of the work are enclosed hereunder.

**TECHNICAL SPECIFICATIONS:**

1. Technical requirements of lift installation, its components, safety devices, various type of controls and methods of operation.

The selection of a particular type of control and method of operation will be guided by the requirements in individual case such as nature of building, usage, occupancy, traffic pattern etc.

2. Drive Machinery:

2.1 Electric Supply

Three phase, 50 c/s, 415 V electric supply shall be made available. The entire lift equipment should be suitable for operation at +10% to — 20% of the rated supply voltage.

2.2 Geared Machine: The lift machine shall be of worm gear reduction type with motor, brake, worm gearing and driving sheave and suitable for type of control specified.

2.3 Sheaves: Sheaves and pulleys shall be of hard alloy, cast iron, SG iron or steel and free from cracks, sand holes and other defects. They shall have machined rope grooves. The traction sheave shall be grooved to produce proper traction and shall be of sufficient dimension to provide for wear in the groove. The deflector sheave shall be grooved so as to provide a smooth bed for the rope. The deflector or secondary sheave assemblies where used shall be mounted in proper alignment with the traction sheave. Such deflector sheaves shall have grooves larger than rope diameter as specified in clause 8 of IS 14665 (Part 4 Section 3): 2000. The size of all the sheaves shall be in accordance with clause 8.4 of IS 14665 (Part —4 Sec 3): 2000. Wherever necessary suitable protective guards may be provided .

2.4 Shaft Keys: Shafts which support sheaves, gears, coupling and other members which transmit torque shall be provided with tight fitting keys of sufficient strength and quality.

2.5 Brake: The lift drive machinery shall be provided with an electro-magnetic brake or motor operated brake normally applied by means of springs in compression when the operating device is in off position. The brake shall be suitably curved over the brake drum or brake disc and provided with fire proof friction lining. The operation of brake shall be smooth, gradual and with minimum noise. The brake shall be designed to be of sufficient size and strength to stop and hold the car at rest with rated load. The brake should be capable of operation automatically by the various safety devices, current failure and by the normal stopping of the car. The brake shall be released electrically. It shall also be possible to release the brake manually, such releases requiring the permanent application of manual force so as to move the lift car in short stops. For this purpose suitable brake release equipment, wherever, necessary shall be supplied with each lift installation and the same shall be kept in safe custody to prevent misuse.

2.6. Hand winding wheel or handle: At times of lift stoppage due to any reason, it shall be possible to move the lift car to the nearest landing manually. The manual operation shall be by means of a 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 color advising the maintenance staff to switch off the main supply before releasing the brake and operating the wheel is to be prominently displayed.

2.7. Bearings: Bearings shall be either of the anti-friction metal sleeve type with oil reservoirs, self lubrication, oil gauges, capped filler openings and drains of the ball roller or sintered type subject to oil flood lubrication or grease lubrication. Grease lubricated bearings shall have grease gun connections and drain plugs. The bearings and lubricant reservoirs shall be dust tight and shall incorporate effective seals to prevent leakage. The outer end of the bearings shall be closed with a removable oil tight plate. Thrust bearings shall be of the ball or roller type and shall have two sets of balls or rollers arranged to minimize backlash for efficient working.

### 3. Type of Controls:

#### 3.1 Single Speed Alternating current control:

For control of a driving machine induction motor shall be such which can arrange to run at a single speed.

3.2 Variable Voltage – Variable Frequency : Incoming mains AC power is first rectified to DC and then inverted to provide controlled AC current to the elevator drive. Precision monitoring of motor speed and car direction, position and load enable the pulse width of the AC power supplied to the motor to be adjusted to ensure that elevator speed is maintained very accurately to an ideal profile. Thus in VVVF controls pulse width modulation control of AC motors has the following advantages

compared with the older servo controlled elevators:

- a) Total control at all stages of the motion cycle.
- b) A consistent fully adjustable smooth ride
- c) Better leveling accuracy under all the conditions
- d) A higher power factor
- e) Lower starting currents
- f) Energy saving through reduced power consumption.

#### 4. Installation Aspects:

4.1 Installation in machine room: Lift machine room to accommodate the drive machinery, controller, etc. shall as far as possible be located on top of the lift shaft. The layout of equipment there should be such as to allow free movement of maintenance personnel inside. Machine room shall not be used for storage purposes.

4.1.1 Ventilation of Machine Room: Machine room shall be provided with natural air and mechanical ventilation to avoid over heating of the electrical equipment and to ensure proper operation of the controller. Entry of dust etc. shall also be suitably prevented.

4.1.2 Vibration and Isolation: Vibration and isolation arrangement shall be provided to prevent transmission of vibration to the building and the structure.

#### 4.2 General Illumination of Lift well :

Suitable light point shall be provided in the lift well at a spacing of not more than 10 meters in between, starting at the ground floor. All the points should be group controlled from the M/C room. The wiring shall be carried out in surface conduit as per CPWD General Specifications. One socket outlet shall be provided in the shaft for use by maintenance personnel at a level slightly above the ground floor landing.

5.0 Guide Rails : Guide rails shall be in accordance with clause 3 of IS:14665 (Part 4 Section 2) 2000. Only machined guide rails shall be permitted for cars for passenger lifts.

Formed sheet metal rails shall be used upto speed of 1.75mps for counter weight application. The Guide rails shall be continuous throughout the entire travel and shall withstand without any deformation the action of safety gear with a fully loaded car. Generally the guide rails shall be supported by brackets secured to the hoist way frame at each floor. The rails shall be securely fastened to the brackets or other supports by approved heavy rail clamps. All necessary guide rails packing or additional supports shall be provided to prevent guide rail deflection and stresses exceeding the prescribed limit. The stresses on the guide rail due to the horizontal forces imposed on it during loading, unloading and running calculated without impact, shall not exceed 1100 kg/sq. cm based upon the class of loading and the deflection shall not exceed 5mm. The guide rail brackets, their fastenings and supports shall be capable of resisting the horizontal forces mentioned above, with the total deflection at the point of support not in excess of 3mm.

Guide rails shall extend from pit floor to the underside of concrete slabs or grating at top of the lift well. They shall be erected in plumb and parallel with a maximum deviation of 3mm. All shimming required shall be of metal securely held in place. Jointing plates shall be so located as not to interfere with supporting clamps and brackets. The bolts shall be used with spring lock washers. The guide rail anchorage at pit floor must be made without puncturing the water proofing. The expansion joints in the guide rails shall be so designed as to avoid jerks in the lift car.

Machined guide rails shall have finished surfaces which shall be coated with corrosion preventive compound which shall be maintained till the commissioning of the Installation. Before the car is placed in operation, the preventive coating shall be removed and the guide rails thoroughly cleaned and smoothed.

6.1 Car Frame: The car frame shall be in accordance with clause 4 of IS 14665 (Part 4 Section 3): 2001 made of sheet steel of rigid construction to withstand without permanent deformation the operation of safety gear. The car shall be so mounted on the frame that vibration and noise transmitted to the passengers inside is minimized.

## 6.2 Car Apron, Landing Thresholds and Sills:

An apron shall be fitted to the car platform so that no dangerous gap exists at any time when the landing door is opening, Threshold and sill plates shall be provided at the landings also. The distance between landing sill and the sill on car platform shall not be more than 30mm.

## 6.3 Inter Communication System:

Provision of both i.e. telephone with minimum two connections – one at the electrical 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 feedback 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. Provision of group indicator panel in the control room shall be made to indicate working of lifts.

## 6.4 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.

## 6.5 Ratings and Instructions

Inside the lift car, the lift supplier shall also provide a stainless steel metallic plate indicating the rated load and detailed instructions for the passengers. This shall be mounted at a suitable place.

## 6.6 Lift Car Interior Finish

The side, rear and fascia panel shall be of scratch free stainless steel sheet. The flooring shall be with 3mm thick PVC tiles for passenger lifts. The false ceiling in the lift car shall be crafted from mild steel powder coated to suitable colour with CFL lamps and fan diffuser(s) in different colour.

## 6.7 Operating Panel inside the Car

The car operating panel shall be of metal, flush mounted and duly finished to match the car interior décor and shall contain all the devices as may be specified depending upon the type of operation required. In addition separate illuminated panel for indicating the floor and direction may be provided on the top or the door way. All switches shall be fade proof and the devices shall be of suitable quality. Each device and its operating position shall be legible fade proof and marked.

## 7. Car and Landing Entrances

The car and landing doors shall be of flush type sheet only for power operation. The flush type may further be of single sliding, centre opening or two speed construction. Power operated car and landing doors shall be so designed as not to injure any person during their closure by means of provision of a safety pressure switch which shall cause the doors to reopen on the slightest pressure. In case of power operated doors, it shall be possible on power failure, to open them from the car side. All the openings for passenger lifts shall be 2000mm clear in height. The door opening and closing shall be accomplished smoothly and quickly without undue noise, vibration and shock and their movements shall be cushioned and checked at both limits.



## 7.1 Car Doors

7.1.1 The car shall be hung from the top MS fabricated track and means shall be provided to prevent the door from jumping off the track. The doors shall be provided with two point suspension sheave type hangers suitable for the type of door operation specified. The hangers shall be securely fastened on bearings mounted on a malleable iron or steel bracket. Arrangement shall be provided for vertical and lateral adjustment of car doors. The sheaves shall move on a MS fabricated track so shaped as to permit free movement of sheaves with regard to vertical adjustment of sheave bracket or housing. The car door shall be centre opening flush type sliding stainless steel scratch proof (hairline finish).

7.1.2 A potential cause of accidents could be attempts made to open the landing door lock of lower floor in case the car stops away from floor level due to power failure. Since the car door can be opened in case of power failure so as to improve the ventilation and avoid claustrophobic situations etc. as outlined in IS 14665 (Part 2 Section ) 2000 para 10.9.1 there is a tendency among trapped passengers to make attempts to open any accessible landing door which can be opened by a electromechanical latch in the landing doors as the lock is accessible through open car doors. This attempt in panic may result in accidental fall into the lift pit. In order to ensure that the trapped passenger do not attempt opening the landing door, the electromechanical latch should be so designed that it is inaccessible or invisible to the passengers in the car.

7.1.3 In order to avoid accidental closure of doors while boarding or alighting the car, a tamper proof infrared curtain covering almost the entire height of the door should be provided in the lift doors.

## 7.2 Provisions as per Barrier Free Requirements

7.2.1 A hand rail not less than 600mm long at 900mm above floor level shall be fixed adjacent to the control panel.

7.2.2 The time of an automatically closing door should be minimum 5 second and the closing speed should not exceed 0.25M/Sec.

7.2.3 The interior of the cage shall be provided with a device that audibly indicate the floor the cage has reached and indicate that the door of the cage for entrance / exit is either open or closed.

## 8. Landing Doors

8.1 Each landing door shall be complete with locks, headers, sills, frame, rims, hanger support with cover plates, fascia plates etc. The finished work shall be strong, rigid and neat in appearance. Plain surfaces shall be smooth and free warp or buckle. Moulded surfaces shall be clean out, straight and true. Fastenings shall be concealed from the face side of the material. Steel sills shall be provided with a suitable nosing of approximately 25mm depth on the shaft side.

8.2 The opening for the landing gates or doors shall not be wider than that of the lift car. In the case of bi-parting type steel doors, the locking of the two leafs locking of the doors should be positive.

## 8.3 Car Landings

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

8.3.2 For the purpose of identification, the lift number should be displayed outside the landing door, inside the car and in the machine room. This numbering may be used as reference for the purpose of routine/ preventive maintenance, for operating from machine rooms and reporting of any incident etc.

## 9. Instructions

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

9.1.2 It is seen generally, that though the instructions on DO's and Don'ts, as per provision of the relevant IS, are displayed in lift cars but the same are either displayed in Inconspicuous location, or are very small in size or are in one language only. To make these instructions serve the intended purpose, and not a mere compliance of relevant IS clause; that these instruction should be displayed at a conspicuous location with larger and understandable script and should be written in Hindi and English.

## 9.2 Leveling:

All lift(s) shall be incorporated with suitable floor leveling devices. In 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  $\pm 5\text{mm}$  shall be incorporated.

## 9.3 Counter Weight

The counter weight for lift cars shall be in accordance with clause 6 of IS 14665 (Part 4 Section 3) 2001 and shall be designed to balance the weight of empty lift car plus approximately 50 percent of the rated load. It shall consist of cast sections firmly secured in relative movement by at least two number steel tie rods having lock nuts/split pins at each end and passing through each section and housed in a rigid steel frame work. Cracked and broken sub weights shall not be accepted.

## 9.4 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.

## 10. Guide Shoes

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

### 10.1 Type of Shoes:

Sliding guide shoes shall be used. Sliding guide shoes for car shall be always flexible and for counter weight solid guide shoes can be used.

### 10.2 Flexible type/ Solid type sliding guide shoes

The car shall be provided with solid or spring loaded swiveling guide shoes with renewable liners.

### 10.3 Mounting of guide shoes

Guide shoes shall be provided with adjustable mountings and shall be rigidly secured in accurate alignment at the top and bottom on each side of the car sling and counter weight frame construction. When oil buffers attached to the bottom of counter weight are used, additional guide shoe shall be provided on each side of the buffer frame. The design of guide shoes and car safety device shall be coordinated so as to ensure the provision and installation of equipment with specified clearance.

### 11. Lift Ropes – IS 14665 (Part 4 Section 8) 2001

Round strand steel wire ropes made from steel wire ropes having a tensile strength not less than 12.5 tonnes/cm<sup>2</sup> and of good flexibility shall be used for lift.

Lubrications between the strands shall be achieved by providing impregnated hemp core. The lift ropes shall conform to IS 14665 (Part 4 Section 8) 2001 and the prescribed factor of safety shall be adhered to.

#### 11.1 Rope Fastening:

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

#### 11.2 Guards For Lift Ropes:

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

#### 11.3 Number and 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 certificate of ropes from the rope manufacturers.

### 12. Safety Equipments

12.1 Every lift installation shall necessarily be provided with the following safety features:

The safety gear shall be provided in accordance with IS 14665 (Part 4 Section 4) 2001, each type of car safety shall be actuated by a speed governor.

12.2 Governor – The car safety shall be operated by speed governor located overhead and driven by governor rope suitably 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 phosphor bronze. These shall be in accordance with IS 14665 (Part 4 Section 4) 2001. Governor for car safety gears shall be adjusted to actuate the safety gear at the following speeds:

- a. For rated speeds upto 1m/s maximum governor tripping speed shall be either 140 percent of rated speed or 0.88m/s whichever is higher.
- b. Minimum governor tripping speed shall be 115 percent of the rated speed.

12.2.1 The governor shall be of "V" groove wheel design and only wheel is stopped to actuate the car safety upon a pre-determined over speed downward without damaging the rope.

12.3 The governor, rope and sheave shall be so located so as to minimize danger of accidental injury to the equipment.

12.3.1 The governor sheave and tension sheave shall be according to para 2.4 and the sheave bearing shall be according to para 2.7 supra.

12.3.2 The requirement for field test on car safety and governor and for drop tests to sliding type car safeties shall be as specified in IS codes.

#### 12.4 Terminal limit switches

##### 12.4.1 Terminal Switches

These shall stop the car automatically at terminal floors within the top and bottom permissible over travel. They shall act independently of the operating devices, the ultimate limit switches and the buffers. They shall be in accordance with clause 8 of IS 14665 (Part 3 Section 1) 2000.

12.4.2 Terminal stopping devices located in shaft or in the car and operated by cams shall be fitted with rollers having a rubber or other approved composition to provide silent operation when actuated by the cam. When the lift car cross head is 60cm from the nearest obstruction above it, no projection on the car shall strike any part of the overhead structure.

##### 12.5 Ultimate Terminal Switches

These shall be provided in accordance with the statutory requirements and standing practices. When provided these shall arrange to stop the car automatically within top and bottom clearance independently of the normal terminal switches but with the buffers operative. These shall be in accordance with clause 8 of IS: 14665 (Part 3 Section 1) 2000.

##### 12.6 Buffers IS 14665 [Part 4 Section1] 2001

Buffers shall be spring / oil type. Buffers shall be suitable for installation in the space available. Buffer anchorage at pit floors shall be installed avoiding puncturing of water proofing. Oil buffers of the car and counter weight shall be of the spring return type or 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 manufacturers 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 60cms 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 car cross head is 60 cm from the nearest obstruction above it, no projection on the car shall strike any part of the overhead structure.

The contactor must indicate the name of buffer manufacturers, buffer stroke and certified maximum loads.

##### 12.7 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.

All the locks and contacts shall conform to IS 14665 (Part 1 Section 6) 2001 shall be positive and pass the prescribed endurance and reliability test from a recognized testing laboratory. They shall be so located as to be inaccessible to unauthorized personnel. The electromechanical latch should be so designed that it is inaccessible or invisible to the passengers in the car.

### 12.8 Other Safety

Besides these safety devices mentioned above, motor operated mechanical brake (para 2.6 supra) counter weight guards (para 9.1 supra) alarm bell, emergency door lock release operating key and associated safety and other safety requirements shall also be included.

## 13 Lift operation

### 13.1 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 single landing button at each landing, all electrically connected to 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 car and also when car stops at floor landing, other landing call buttons are in-operative for a predetermined time. The pressing of car button shall automatically start the car and send it to the desired landing. In all the cases, the starting of the car is contingent on the establishment of landing door and car interlock circuits. To indicate the availability, or 'in use' light shall be placed in the landing call button panel. When light shall be 'OFF' the passenger shall be able to call the car. In case of manual 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 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 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 attendant by the provision of 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 of low rising building having a single lift installation.

### 13.2 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 button at the landings, wherein all stops registered by the momentary actuation of the car made as 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 landings are 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 travelling in the up direction and all 'down' landing calls are

answered when the car is travelling 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 of the direction of travel of the car.

#### 14. Controlling Equipment

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

##### 14.1 Control Circuit

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.

##### 14.2 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

##### 14.3 Auxiliary Switches:

14.3.1 Emergency stop switches . On top of the lift car an emergency stop switch shall be provided for use by maintenance personnel. Stop switch shall be provided in the machine room.

Operation of these switches/ buttons shall cancel all the registered calls and landing calls for that particular lift.

##### 14.3.2 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.

##### 14.3.3 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 the calls to all the lifts and the lifts will stop at the next nearest landing if travelling upward. The doors will not open at this landing and the lift will start travelling to ground floor. If these were already travelling down, they will go straight to ground floor direct without stopping enroot.

##### 14.3.4 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 r

oom 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 stop of the car.

#### 14.3.5 Safety Line Indicators:

If specified visual tell tale 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 visual indication of the safety line open circuit and also its location for easier fault finding.

#### 14.4 Control Wiring:

##### 14.4.1 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 and shall conform to I.E. Rules 1956 and CPWD. Specifications for Electrical Works. Following general principles shall be followed in wiring:

- a. Control cables carrying DC and power cable carrying AC shall not be run in the same conduit or metal duct and they shall be laid as per IE Rules.
- b. Metal duct with removable inspection cover shall be preferred.
- c. In case of control cables also the harness shall be separate as far as feasible for separate functions and laid separately in suitably dimensioned metal duct or in a separate conduit such as the signing, locking, lamp indication and safety. Control cables for different voltages in the lift installation works should be laid as per IE Rules.

#### 15. Testing & Test Results, Performance

Specifications also include the performance guarantee tests of the equipments, parts, mountings accessories and wirings etc.

Some tests are performed in the manufacturer's work shop (type test)

- (i) Safety tests for all the equipment particularly for rope, gears, and brakes
- (ii) High voltage test for dielectric test of electrical equipments, apparatus, controls
- (iii) Other test results which may be required by the JNAFAU.

The result of such tests shall be submitted by the contractor to the JNAFAU. Some tests are to be performed after completion of the Job

- (i) Load test.
- (ii) Emergency landing test on power failure.
- (iii) Emergency landing test on failure of main contactor and coil.
- (iv) Emergency landing test on misbehavior of the system.
- (v) Emergency landing test on phase failure.
- (vi) Emergency landing test on failure of control board, transformer, rectifier, inverter etc.
- (vii) Over travel test in the pit.
- (viii) Tripping test of lift motor.
- (ix) Power failure and its restoration while car travel without passenger(s).
- (x) Not entertaining any call from inside or outside of the car during emergency operation.

#### 16. Installation of Lifts.

It shall be carried out in conformity with the following Statutory Acts, Rules, Regulations, Standards and Safety Codes.

##### 16.1 Local Lift Acts and Rules

Where no local lift Act is in force the Bombay Lift Act and Rules shall be followed. The installation shall also conform to requirements of Local Municipal Bylaws.

## 16.2 Indian Electricity Acts and Rules:

All electrical works in connection with installation of electric lifts shall be carried out in accordance with the provisions of Indian Electricity Act 1910 and the Indian Electricity Rules 1956 amended upto date. The electrical works shall also conform to CPWD General Specifications for Electrical works Part – I (Internal) 1994 and Part – II (External) 1994 as amended upto date wherever relevant.

16.3 Statutory Regulations for Safety and Contract Labour Regulations and Abolition Rules 1971 The contractor shall at his own expenses arrange for the safety provisions as per the statutory regulations. IS recommendations, regulations under Factory Act etc, where applicable, and instructions issued from time to time in respect of labour employed by him directly or indirectly for the installation of the lift.

The contractor shall provide necessary barriers, warning signs and other safety measures etc., wherever necessary, so as to avoid accident. In case of default the Institute shall be at liberty to make arrangements and provide facilities as aforesaid and recover the cost from the contractor. He shall also indemnify Institute against claims for compensation arising out of his negligence in this regard.

## 16.4 Fire Regulations:

The installation shall be carried out in conformity with the Local Fire Regulations and rules there under wherever they are in force.

## 17. IS Codes and Specifications for Lifts:

The following IS codes and specifications for the lifts shall be applicable:

S. No.	IS Code	Particulars
1	4666 — 1980	SPECIFICATIONS FOR ELECTRIC PASSENGER AND GOODS LIFTS
2	2332 — 1963	NOMENCLATURE FOR FLOORS AND STOREYS
3	4289 — 1984	ELASTOMER INSULATED CABLES AND PART 2 : PVC INSULATED CIRCULAR CABLES
4	1860 — 1980	CODE OF PRACTICE FOR INSTALLATION, OPERATION AND MAINTENANCE OF ELECTRIC PASSENGER AND GOODS LIFTS
5	3534 — 1976	OUTLINE DIMENSIONS OF ELECTRIC LIFTS
6	2365 — 1963	SPECIFICATIONS FOR STEEL WIRE SUSPENSION ROPES FOR LIFTS, ELEVATORS & HOISTS
7	14665 — 2000	PART 1: ELECTRIC TRACTION LIFTS - PART 1 : GUIDELINES FOR OUTLINE DIMENSIONS OF PASSENGER, GOODS, SERVICE AND HOSPITAL LIFTS
8	14665 — 2000	PART 2 SECTION 1 AND 2: ELECTRIC TRACTION LIFTS - PART 2 : CODE OF PRACTICE FOR INSTALLATION, OPERATION AND MAINTENANCE - SECTION 1 : PASSENGER AND GOODS LIFTS - SECTION 2 : SERVICE LIFTS



9	14665 — 2000	PART 3 SECTION 1 AND 2: ELECTRIC TRACTION LIFTS - PART 3 : SAFETY RULES - SECTION 1 PASSENGER AND GOODS LIFTS - SECTION 2 : SERVICE LIFTS
10	14665 — 2001	PART 4 SECTION 1 TO 9: ELECTRIC TRACTION LIFTS - PART 4 : COMPONENTS - SECTION 1 : LIFTS BUFFERS - SECTION 2 : LIFT GUIDE RAILS AND GUIDE SHOES - SECTION 3 : LIFT CARFRAME, CAR, COUNTERWEIGHT AND SUSPENSION - SECTION 4 : LIFT SAFETY GEARS AND GOVERNORS
11	14665 — 1999	PART 5: ELECTRIC TRACTION LIFTS - SPECIFICATION - PART 5 : INSPECTION MANUAL
12	6620 — 1972	CODE OF PRACTICE FOR INSTALLATION ,OPERATION AND MAINTENANCE OF ELECTRIC SERVICE LIFTS
13	6383 — 1971	SPECIFICATIONS FOR ELECTRIC SERVICE LIFTS
14	3043 — 1966	CODE OF PRACTICE FOR EARTHING
15	2309 — 1969	CODE OF PRACTICE FOR THE PROTECTION OF BUILDING AND ALLIED STRUCTURES AGAINST LIGHTNING
16	4591 — 1968	CODE OF PRACTICE FOR INSTALLATION AND MAINTENANCE OF ESCALATORS

#### 18. Technical Requirement of Lifts

Technical Requirement of lifts are given in the table A.

**TABLE - "A"**

<u>LIFT ( ELEVATOR) SPECIFICATIONS FOR (6 STOPS FOR SPA BUILDING)</u>	
Passenger Lift ( Elevator) – (0.7MPS) Servicing ground floor to fourth floor ( G+5).	
Model	Lift ( Elevator)
Number of lifts ( Elevators)	01No.
No of Stops	6 Stops.
Type	06 passenger
Capacity	06 pass / 408 kgs
Speed	0.7 meter / sec
Controller Type	LVA
Location of machine room	PM Gearless (Located in shaft on top of guid rails).
Travel	25M
Well size required	1600 mm wide x 1500mm deep
Head room in lift shaft	4000mm from last landing
Pit depth	1350mm depth from finish ground level

Power supply	400/415 Volts (3 Phase)
Auxiliary required	Single phase , 50 Hz, AC Supply + Earthing
Car size clear in side	1000 mm W x1050 mm D x 2200 mm D.
Car enclosure ( type of design)	SS hairline finish car
Electric light	Fluorescent
Fan	300mm sweep-one no.
No. of entrance	One location front
Car entrance	Centre opening power door ( SS hairline finish ) Flush type sliding door
Landing entrance and door frames	Centre opening power door ( SS hairline finish ) Flush type sliding door
Clear opening for car door	800mm wide x 2000mm height
Indicator in car	Direction and position indicator
Indicator in landing	Direction and position indicator
Flooring	Vinyl Tiles
Lift operation	Full collective operation
Position of Machine room	Top of lift well
Position of counter weight	Right or left side / Back side of car travel
Other features	
Micro processor based full collective with / without attended switch :	
Steel painted ceiling	
Full length infra red safety light curtain:	
Battery operated emergency alarm & light:	
Hand rail and Mirror:	
Fire rescue device:	
3 way intercom	
Proposed date for commencement :	
Proposed date for completion:	
Booklet giving complete details of maintenance schedule and circuit diagram – 8 copies	

**TABLE - "B"**

<b>LIFT ( ELEVATOR) SPECIFICATIONS FOR (3 STOPS FOR FINE ARTS BUILDING)</b>	
Passenger Lift ( Elevator) – (0.7MPS) Servicing ground floor to fourth floor ( G+3).	
Model	Lift ( Elevator)
Number of lifts ( Elevators)	01No.
No of Stops	4 Stops.
Type	06 passenger
Capacity	06 pass / 408 kgs
Speed	0.7 meter / sec
Controller Type	LVA
Location of machine room	PM Gearless (Located in shaft on top of guid rails).
Travel	10 M
Well size required	1600 mm wide x 1500mm deep
Head room in lift shaft	4000mm from last landing
Pit depth	1350mm depth from finish ground level
Power supply	400/415 Volts (3 Phase)

Auxiliary required	Single phase , 50 Hz, AC Supply + Earthing
Car size clear in side	1000 mm W x1050 mm D x 2200 mm D.
Car enclosure ( type of design)	SS hairline finish car
Electric light	Fluorescent
Fan	300mm sweep-one no.
No. of entrance	One location front
Car entrance	Centre opening power door ( SS hairline finish ) Flush type sliding door
Landing entrance and door frames	Centre opening power door ( SS hairline finish ) Flush type sliding door
Clear opening for car door	800mm wide x 2000mm height
Indicator in car	Direction and position indicator
Indicator in landing	Direction and position indicator
Flooring	Vinyl Tiles
Lift operation	Full collective operation
Position of Machine room	Top of lift well
Position of counter weight	Right or left side / Back side of car travel
Other features	
Micro processor based full collective with / without attended switch :	
Steel painted ceiling	
Full length infra red safety light curtain:	
Battery operated emergency alarm & light:	
Hand rail and Mirror:	
Fire rescue device:	
3 way intercom	
Proposed date for commencement :	
Proposed date for completion:	
Booklet giving complete details of maintenance schedule and circuit diagram – 8 copies	

#### 19. Works to be done by the Contractor

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

19.1 All minor building work necessary for installation of equipment after dismantling of old lift. The scope of minor building work includes all grouting of foundation, concrete pads to be formed or made as base for supporting R.S. joists etc., grouting and anchoring of all boards clamps, supports, foundation bolts, installation in position of R.S. joists in the machine room, lift well or in the pit, or any other work/ repair required for the installation of lift.

19.2 Supply of necessary R.S. joists or angle iron supports, 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.

19.3 All the electrical works to the machine room shall be terminated on suitable switch fuse unit/ board. All the electrical works including inter-connection from this switch/ board and loo

p earthing from the earth bar to be provided in the machine room shall be done by the contractor.

19.4 Responsibility to ensure safety of lift materials against pilferage and damage till the installation is handed over to the JNAFAU.

19.5 All scaffolding as may be necessary in the lift well during erection work and subsequently removed.

19.6 Temporary barricades with caution boards at each landing to prevent accident during execution of work.

19.7 Supply and Installation of landing fascia plates made of steel, car apron plates, sill support angles with necessary clamps, foundation bolts support etc., as are necessary in connection with the installation of the lift.

19.8 Steel ladder to be provided for access to lift pit wherever required under regulations.

#### 19.9 COMPLETENSES OF TENDER

All fittings, equipments, units, assemblies and accessories, hardware, foundation bolts, terminal lugs for electrical connections, cable glands, junction box and items which are useful and necessary for efficient assembly in operation and installation are included in the scope of work. The installation shall be complete in all respect whether such details have been mentioned in the specifications or not.

#### 19.10 INFORMATION TO BE SUPPLIED BY CONTRACTOR AFTER AWARD OF WORK

Within a period of 15 (Fifteen) days from the date of receipt of letter of acceptance the contractor shall provide the JNAFAU his programme bar chart for submission of preliminary drawings, manufacturing of equipment, installation, testing, commissioning and handing over. The contractor shall be required to submit in triplicate the following drawings and information within the above period for approval before commencing the work:

(a) All general arrangement drawings including drawings of Machine Room with all the details ;

(b) Complete layout dimensions for every unit/ group of units with dimensions requirement for erection purposes.

(c) Any other drawing/ information not specifically mentioned above but deemed to be necessary for the job by the contractor.

#### 19.11 COMMENCEMENT OF WORK

As soon as the preliminary drawings are approved, the contractor should commence work. The contractor shall also send seven sets of final drawings to the Institute who shall return one copy

#### 20. Guarantee and Service

Guarantee provided by the contractor should cover the free replacement of parts which are found defective due to faulty material or workmanship in the guarantee period of 12 (twelve) month after the issue of the certificate of completion of work by the Engineer Incharge.

## AGREEMENT

THIS AGREEMENT made at Hyderabad on the \_\_\_\_\_ day of \_\_\_\_\_ 2018 between The Registrar , JNAFAU, Hyderabad (hereinafter called "JNAFAU, Hyderabad )which

expression shall, unless repugnant to the context or meaning thereof, include its administrators, successors and assigns) of the one part AND \_\_\_\_\_ (herein after called "The Contractor" which expression shall, unless repugnant to the context or meaning

Thereof, include its successors and permitted assigns) of the other part. WHEREAS The JNAFAU, Hyderabad is desirous of carrying out Supply, Installation, Testing, Commissioning & Maintenance of Lifts (02 No.) in the JNAFAU Campus as fully described in the layout drawings. The Works are to be executed as per drawings and specifications describing the works to be done. The Contractor has agreed to execute the said works viz. Supply, Installation, Testing, & Commissioning & Maintenance of Lifts (02 No.) for University subject to the provisions hereinafter contained and subject also to General Conditions of Contract, Safety Code, Model Rules for the protection of health and Sanitary arrangements for workers,

Specifications, Preambles and Schedule of Quantities and installation schedule (all of which are hereinafter collectively referred to as the 'said tender conditions') and strictly in accordance with the drawings annexed hereto at or for the respective rates set out in the Schedule of Quantities amounting to the sum as there under arrived at or such other sums as shall become payable there under (hereinafter referred to as the said tendered amount).

NOW IT IS HEREBY AGREED AS FOLLOWS:-

1. In consideration of the said tendered amount to be paid by the JNAFAU to the Contractor at the time and in the manner set forth in the said tender conditions and in accordance with the Schedule of Payments to execute and complete the work shown upon the said Drawings strictly in accordance with the specifications and
2. Schedule of Quantities.  
The said tender conditions and the annexures hereto shall be read and considered as forming part of this contract and the parties hereto shall respectfully abide by to the said conditions and perform the agreement on their part respectively contained in the said conditions.
3. The approved drawings, notice inviting tenders technical specification etc. shall also form the basis of this contract.
4. This contract is neither a Lump sum Contract, nor a piece work contract, but is a contract on item rate basis to be carried out and to be paid for according to the Schedule of Payments at the rates contained in the Schedule of Quantities.
5. The contract herein contained shall comprise not only the works mentioned above but all subsidiary works connected therewith within the same site as may be ordered to be done from time to time by the said Engineer In charge for the time being, even if such work may not be shown on the said Drawings or described in the said

Specifications and Schedule of Quantities.

6. The JNAFAU reserves to themselves the right of altering the drawings and the nature of the work by adding to or omitting from the scope of work any item of work or portions of the same without prejudice to this contract.

7. Time shall be considered as the essence of this contract and the Contractor hereby agrees to commence the work within 10 days from the date of work order or from the date of handing over of the site, as provided for in the said terms and conditions, whichever is later, and shall complete the entire work within the specified period, subject nevertheless the

provisions for extension of time as may be agreed to by the JNAFAU and as contained in the said conditions.

8. All payments by the JNAFAU under this contract shall be made only at Hyderabad.

9. All disputes arising out of or in any way connected with this contract shall be deemed to have arisen at Hyderabad and courts in Hyderabad only shall have jurisdiction to determine the same.

10. That the contract and several parts of this contract have been read by the contractor and fully understood by him. The contractor shall not be entitled for payment beyond tendered quantities unless ordered specifically by written instructions of EE (Bldg).

11. This contract shall be signed in triplicate, the original whereof shall be kept in the custody of the JNAFAU

Hyderabad, the duplicate with the Contractor and the triplicate with the Architect.

IN WITNESS WHEREOF the JNAFAU Hyderabad has set his hands hereunto and three duplicates hereof through his duly authorized official and the Contractor has caused these

presents and three duplicates hereof under his common seal by his duly authorized representative at the place and on the date month and year first herein above written.

SIGNED, SEALED AND DELIVERED by JNAFAU Hyderabad, by the hand of

Signature

Name

Designation

IN THE PRESENCE OF

Signature

Name

Designation

Signature

Name

Designation

SIGNED, SEALED AND DELIVERED BY the Contractor M/s. \_\_\_\_\_

\_\_\_\_\_

Signature

Name

Designation

IN THE PRESENCE OF

Signature

Name

Designation

Signature

Name

Designation

## General Rules & Directions for the guidance of contractors

1. All works proposed for execution by contract will be notified in a form of invitation to tender pasted in public places and signed by the officer inviting tender or by publication in News papers as the case may be. This form will state the work to be carried out, as well as the date for submitting and opening tenders and the time allowed for carrying out the work, also the amount of earnest money to be deposited with the tender, and the amount of the security deposit and Performance Security to be deposited by the successful tenderer and the percentage, if any, to be deducted from bills. Copies of the specifications, designs and drawings and any other documents required in connection with the work signed for the purpose of identification by the officer inviting tenders shall also be open for inspection by the contractor at the office of officer inviting tenders during office hours.

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

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

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

5. The officer inviting tender or his duly authorized assistant will open tenders in

the presence of any intending contractors who may be present at the time, and will enter the amounts of the several tenders in a comparative statement in a suitable form. In the event of a tender being accepted the contractor thereupon for the purpose of identification sign copies of the specifications and other documents mentioned in Rule-I. In the event of a tender being rejected, the earnest money shall there upon be returned to the tenderer without any interest.

6. The officer inviting tenders shall have the right of rejecting all or any of the tenders and will not be bound to accept the lowest tender.

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

8. The memorandum of work tendered for and the schedule of materials to be supplied by the Institute and their issue-rates, shall be filled in and completed in the office of the officer inviting tenders before the tender form is issued. If a form is issued to an intending tenderer with

hout having been so filled in and incomplete, he shall request the officer to have this done before he completes and delivers his tender.

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

9A. Use of correcting fluid, anywhere in tender document is not permitted. Such tender is liable for rejection.

10.Only rates quoted shall be considered. Any tender containing percentage below/above the rates quoted is liable to be rejected. Rates quoted by the tenderer in item rate tender in figures and words shall be accurately filled in so that there is no discrepancy in the rates written in figures and words. However, if a discrepancy is found, the rates which correspond with the amount worked out by the tenderer shall unless otherwise proved be taken as correct. If the amount of an item is not worked out by the contractor or it does not correspond with the rates

written either in figures or in words, then the rates quoted by the tenderer in words shall be taken as

correct. Where the rates quoted by the tenderer in figures and in words tally, but the amount is not worked out correctly, the rates quoted by him will unless otherwise proved be taken as correct and not the amount. In event no rate has been quoted for any item(s), leaving space both in figure(s), word(s), and amount blank, it will be presumed that the tenderer has included the cost of this/these item(s) in other items and rate for such item(s) will be considered as zero and work will be required to be executed accordingly.

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

12.The amount for each item should be worked out and requisite totals given. Special care should be taken to write the rates in figures as well as in words and the amount in figures only, in such a way that interpolation is not possible. The total amount should be written both in figures and in words. In case of figures, the word 'Rs.' should be written before the figure of rupees and in case of words, the word, 'Rupees' should precede followed by only. While quoting the rate in schedule of quantities, the word 'only' should be written closely following the amount and it should not be written in the next line.

13.The tender for the work shall not be witnessed by a contractor or contractors who himself/ themselves has/have tendered or who may and has/have tendered for the same work.

Failure to observe this condition would render, tenders of the contractors tendering, as well as witnessing the tender , liable to summary rejection TENDER FOR WORKS

I/We hereby tender for the execution of the work specified for the JNAFAU within the specified time in accordance with such conditions so far as applicable and in all the respects with the specifications and instructions in writing referred to in General Rules and Directions and in condition 15 of contract and with such material as are provided for by the Institute.

Memorandum:

- a. General Description of work: Supply, Installation, Testing, Commissioning and Maintenance of Lifts (02 Number) for main building of CFA & SPA buildings, JNAFAU, Hyderabad.
- b. Estimated Cost: Rs. 26.00 Lakhs/-.
- c. Earnest Money: Rs. 5% of contract value .
- d. Security Deposit including Earnest Money: 5% of the tendered amount .
- e. Percentage, if any, to be deducted from bills: 5% of the gross amount of the bill.
- f. Performance Security Deposit: 5% of the tendered amount .



- g. Time allowed for the completion of work: 4 months including rainy season.  
h. Rate for each item of work shall be quoted in the schedule of quantities given in Annexure A1 and A2.

I/We agree to keep the tender open for thirty (30) days from the date of opening of tenders t hereof and not to make any modifications in its terms and conditions.

The sum of Rs. 1,25,000/- is hereby forwarded in the form of Registrar JNAFAU Hyderabad demand draft or Pay order of any Nationalized or Scheduled Commercial Bank issued in favour of JNAFAU, payable at JNAFAU as earnest money. If I/w e, fail to execute the agreement of the work specified I/we agree that the said JNAFAU or his successors in office shall without prejudice to any other right or remedy be at liberty to forfeit the said earnest money 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. I/We hereby declare that I/we shall

treat the tender documents and other records connected with the work as secret/ confidential documents and shall not communicate information / derived there from to any person other than a person to whom I/We am/are authorised to communicate the same or use the information in any manner prejudicial to the safety of the institution.

I/we agree that should I/we fail to commence the work specified in the above memorandum after execution of agreement an amount equal to the amount of the earnest money and performance security deposit shall be absolutely forfeited to the Institute without prejudice to any other right or remedy available in law

Dated -----

Signature of Contractor

Postal Address

Witness

Address:

Occupation:

## ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of the JNAFAU for a sum of

Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_) only. The letters referred to below shall form part of this contract agreement:-

Registrar

JNAFAU

Dated

## GENERAL CONDITION OF CONTRACT

### 1. DEFINITIONS

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

- i. The CONTRACT shall mean the documents forming the tender and acceptance thereof together with the documents referred to therein including conditions, specifications, designs, drawings and instructions issued from time to time by the Engineer-in-Charge and all these documents taken together form one contract and shall be complementary to one another.

ii.

The works or work shall, unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the works, by virtue of the contract contracted, to be executed whether temporary or permanent, and whether original, altered, substituted or additional.

iii. The Site shall mean the land/or other places on, into or through which work is to be executed under

the contract or any adjacent land, path or street through which work is to be executed under the contract or any adjacent land, path or street which may be allotted or used for the purpose of carrying out the contract.

iv. The Contractor shall mean the individual, firm or company, whether incorporated or not, undertaking the works and shall include the legal personal representative of such individual or the persons composing such firm or company, or the successors of such firm or company and the permitted assignees of such individual, firm or company.

v.. The Registrar, JNAFAU, Hyderabad.

Vi The Institute shall mean the JNAFA University, Hyderabad. Vii

The Accepting Authority shall mean the Registrar, JNAFAU.

Viii. The Expected Risks shall mean risks due to riots (other than those on account of contractor's employees), war (whether declared or not) invasion, act of foreign enemies, hostilities, civil war, rebellion revolution, insurrection, military or usurped power, damages from aircraft, acts of God, such as earthquake, lightening and unprecedented floods, and other causes over which the contractor has no control and accepted as such by the Accepting Authority.

Ix. The Schedule(s) referred to in these conditions shall mean the relevant schedule(s) annexed to the tender document and the Standard Schedule of Rates of CPWD with the amendments thereto issued upto the date of issue of notice inviting Tenders. X. The Tendered Amount shall mean the amount of the work as stipulated in the letter of award.

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

3. Headings to the General Conditions of Contract shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof or of the contract

**WORKS TO BE CARRIED OUT**

4. The work to be carried out under the Contract shall, except as otherwise provided in these conditions, include all labour, materials, tools, plants, equipment and transport which may be required in dismantling & stacking on ground the existing lift preparation of and in the full and entire execution and completion of the works.

The descriptions given in the Schedule of Quantities shall, unless otherwise stated, be held to include wastage on materials, carriage and cartage, carrying and return of empties, hoisting, setting, fitting and fixing in position and all other labour necessary in and for the execution and completion of the work as aforesaid in accordance with good practice and recognized principles. **SUFFICIENCY OF TENDER**

5.

The contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices quoted in the Schedule of Quantities, which rates and prices shall, except as otherwise provided, cover all his

obligations under the Contract and all the matters and things necessary for the proper completion and maintenance of the works.

#### DISCREPANCIES AND ADJUSTMENT OF ERRORS

6. 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 drawings and figured dimensions in preference to scale and special conditions in preference to General Conditions.

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

(i) Description of Schedule of Quantities.

(ii) Particular Specification and Special Condition, if any.

(iii) Drawings.

(iv) CPWD Specifications.

(v) Indian Standard Specifications of BIS.

6.2

If there are varying or conflicting provisions made in any one document forming part of the contract, the

Accepting Authority shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on the contractor.

6.3 Any error in description, quantity or rate in the Schedule of Quantities or any commission there from shall not vitiate the contract or release the contractor from the execution of the whole or any part of the

work comprised therein according to drawings and specifications or from any of his obligations under the contract.

#### Performance Security

7.1 The contractor shall submit Performance Security 5% (Five percent) of the tendered amount in addition to other deposits mentioned elsewhere in the contract for his proper performance of the contract agreement, (not withstanding and/or without prejudice to any other provisions in the contract) within seven days from the date of issue of letter of acceptance. This period can be further extended by the Engineer Incharge on written request of the contractor stating the reasons for delays in procuring the Performance Security, to the satisfaction of the Engineer Incharge. This security shall be in the form of demand draft of any Nationalized or Scheduled Commercial Bank issued in favour of Registrar, JNAFAU payable at Delhi .

7.2 The Engineer Incharge shall make claim(s) under the Performance Security for amounts to which the Registrar is entitled under the contract (not withstanding and/or without prejudice to any other provisions in the contract agreement) in the event of failure by the contractor to pay the JNAFAU any amount due, either as agreed by the contractor or determined under any of the Clause/Condition of the agreement, within 30 days of the service of notice to this effect by the Engineer Incharge.

7.3 In the event of the contract being determined or rescinded under provisions of any of the Clause /Condition of the agreement, the Performance Security shall stand forfeited in full and shall be absolutely at the disposal of the Registrar, JNAFAU.

#### 8. Security Deposit

The contractor shall permit the Institute at the time of making any payment to him for work done under the contract to deduct a sum at the rate of 5% of the gross amount of each running bill till the sum along with the sum already deposited as earnest money will amount to security deposit of 5% of the tendered amount of the work or value of work actually executed whichever is more. Such deductions will be made and held by Institute by way of Security Deposit. All compensations or the other sums of money payable by the contractor under the terms of this contract may be deducted from his security deposit or from any sums which may be due to or may become due to the contractor by the Institute on any

account, whatsoever, and in the event of his Security Deposit being reduced by reason of any such deduction, as aforesaid, the contractor shall within 10 days make good the same in cash.

#### 9. Compensation for Delay

If the contractor fails to maintain the required progress in terms of condition 12 or to complete the work and clear the site on or before the contract or extended date of completion as per mile stones given in Annexure B he shall, without prejudice to any other right or remedy available under the law to the Institute

on account of such breach, pay as agreed compensation @ 1.5 % percent of the tendered amount per month of delay to be computed on per day basis

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

Provided always that the total amount of compensation for delay to be paid under this clause shall not exceed 10% of the Tendered Amount of work or of the Tendered Amount of the item or group of items of work for

which a separate period of completion is originally given. The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with the Institute. In case, the contractor does not achieve a particular milestone or the re-scheduled milestone(s) in terms of Clause

12.4 The amount shown against that milestone shall be withheld, to be adjusted against the compensation levied at the final grant of Extension of Time. With-holding of this amount on failure to achieve a milestone, shall be automatic without any notice to the contractor.

However, if the contractor catches up with the progress of work on the subsequent milestone(s), the withheld amount shall be released. In case the contractor fails to make up the delay in subsequent milestone(s), amount mentioned against each milestone missed subsequently shall also be withheld. However, no interest, whatsoever, shall be payable on such withheld amount. The decision of the Registrar, JNAFAU in this regard shall be final and binding.

10 . When Contract can be Determined: Subject to other provisions contained in this condition, the Engineer Incharge may, without prejudice to his any

other right or remedy against the contractor in respect of any delay, inferior workmanship, any claims for damages and/or any other provision of

this contract or otherwise, by notice in writing absolutely determine the contract in any of the following cases:

i. If the contractor having been given by the Engineer Incharge a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or unworkman like manner shall omit to comply with the requirement of such notice for a period of seven days thereafter.

ii. If the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence so that

in the opinion of the Engineer Incharge (which shall be final and binding) he will be unable to secure completion of the work by the date for completion and continues

to do so after a notice in writing of seven days from the Engineer In charge.

iii. If the contractor fails to complete the work within the stipulated date or items of work with

individual date of completion, If any stipulated, on or before such date(s) of completion and does not complete them within the period specified in the notice given in writing in that behalf by the Engineer Incharge.

iv. If the contractor persistently neglects to carry out his obligations under the contract and/ or commits default in complying with any of the term and condition

of the contract and does not remedy it or take effective steps

to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer Incharge.

v. If the contractor shall offer or give or agree to give to any person in the Institute service or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any act in relation to

the obtaining or execution of this or any other contract of the Institute.

vi. If the contractor shall obtain a contract with Institute as a result of wrong tendering or other non-bonafide methods of competitive tendering or commits breach of integrity pact.

vii. If the contractor being an individual, or if a firm, any partner thereof shall at any time be adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the

purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for

the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors.

viii. If the contractor being a company shall pass a resolution or the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle the court to make a winding up order.

ix. If the contractor shall suffer an execution being levied on his goods and allow it to be continued for a period of

21 days. If the contractor assigns, transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer, sublet or otherwise parts with the entire work or any portion thereof without the prior written approval of the Engineer -in-Charge.

When the contractor has made himself liable for action under any of the case aforesaid, the Engineer Incharge on behalf of the Registrar, JNAFAU shall have powers: a)

To determine the contract as aforesaid (of which termination notice in writing to the contract or under the hand of the Engineer Incharge shall be conclusive evidence). Upon such determination, the Security Deposit already recovered including Earn est Money Deposit and Performance Security under the contract shall be liable to be forfeited and shall be absolutely at the disposal of the Institute.

b) To measure up the work of the contractor and to take such whole, or the balance or part thereof, as shall be un-executed out of his hands and to give it to another contractor to complete the work in which case any expenses which may be incurred in excess of the sum, which would have been paid to the original contractor if

the whole work had been executed by him, shall be borne and paid by the original contractor and may be deducted from any money due or any become due to him by the Institute. The contractor, whose contract is determined as above, shall not be allowed to participate in the tendering process for the balance work.

In the event of above courses being adopted by the Engineer Incharge,

the contractor shall have no claim to compensation for any loss sustained by him by

reasons of his having purchased or procured any material or entered into

any engagement or made any advance on account with a view to the executing of the work or the performance of the contract. And in case action is taken under any of the provision aforesaid, the contractor shall not be entitled to recover or be pai

d any sum for any work thereof or actually performed under this contract unless and until the Engineer Incharge has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

11. Contractor remains liable to pay Compensation if action not taken under condition 10 Power to take Possession of or require Removal of or Sell Contractor's Plants In any case in which any of the powers conferred upon the Engineer Incharge by condition 10 thereof, shall have become exercisable and the same are not exercised, the non-exercise thereof shall not constitute a waiver of any of the conditions hereof and such powers shall, notwithstanding,

be exercisable in the event of any future case of default by the contractor and the liability of the contractor for compensation shall remain unaffected.

In the event of the Engineer Incharge putting in force all or any of the power vested in him under the preceding clause he may, if he so desires after giving a notice in writing to the contractor, take possession (or at the sole discretion of the

Engineer Incharge which shall be final and binding on the contractor), use as on hire (the amount of the hire money being also be the final determination of the Engineer Incharge ) all or any tool, plant, material and store in or upon the works, or the site thereof belonging to the contractor, or procured by the contractor and intended to be used for the execution of the work/or any part thereof, paying or allowing for the same in account at the contract rates, or, in the case of these not being applicable at current market rates to be certified by the Engineer Incharge, whose certificate thereof shall be final and binding on the contractor. The Engineer Incharge by notice in writing to the contractor require him to remove such tools, plant, materials, or stores from the premises (within the time specified in such notice). In the event of the contractor failing to comply with any such requisition, the Engineer Incharge may remove them at the contractor's expense or sell them by auction or private sale on account of the contractor and his risk in all respects and the certificate of the Engineer Incharge as to the expenses of any such removal and the amount of the proceeds and expenses of any such sale shall be final and conclusive against the contractor.

#### 12. Extension of time

The time allowed for execution of the work or the extended time in accordance with these conditions shall be the essence of the Contract. The execution of the works shall commence within 10 days from the date of work order or from the date of handing over of the site whichever is later.

If the contractor commits default

in commencing the execution of the work as aforesaid, the Engineer Incharge shall without prejudice to any other rights or remedy available in law, be at liberty to forfeit the Earnest Money and Performance Security absolutely.

12.1 As soon as possible after the Contract is concluded, the Contractor shall submit a Time and Progress Chart for each mile stone and get it approved by the Engineer Incharge. The Chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of the work. It shall indicate the forecast of the dates of commencement and completion of various trades of sections of the work. This may be amended as necessary by agreement between the Engineer In

charge and the Contractor within the limitations of time imposed in the Contract documents, and further to ensure good progress during the execution of the work. The contractor shall in all cases in which the time allowed for any work, exceeds one month (save for special jobs for which a separate programme has been agreed upon) complete the work as per approved mile stones.

12.2 If the work(s) be delayed by:

- (i) force majeure, or
- (ii) abnormally bad weather, or
- (iii) serious loss or damage by fire, or



(iv) civil commotion, local commotion of workmen, strike or lockout, affecting any of the trade employed on the work, or

(v) delay on the part of other contractors or tradesmen engaged by Engineer Incharge in executing work not forming part of the Contract, or

(vi) any other cause which, in the absolute discretion of the Engineer Incharge, is beyond the Contractor's control. Then upon the happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer Incharge but shall nevertheless use constantly his best endeavours to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer Incharge to proceed with the works

12.3 Request for rescheduling of mile stones and extension of time, to be eligible for consideration, shall be made by the Contractor in writing within fourteen days of the happening of the event causing delay on the prescribed form to the Registrar, JNAFAU through the Engineer Incharge. The Contractor shall indicate in such request the period for which extension is desired.

12.4 In any such case the Registrar, JNAFAU

may give a fair and reasonable extension of time and reschedule the mile stones for completion of work. Such extension shall be communicated to the Contractor by the Registrar JNAFAU in writing, within 3 months of the date of receipt of such request. Non application by the contractor for extension of time shall not be a bar for giving a fair and reasonable extension by the Registrar, JNAFAU and this shall be binding on the contractor

13. Completion Certificate

Within ten days of the completion of the work, the contractor shall give notice of such completion to the Engineer Incharge and within thirty days of the receipt of such notice, the Engineer Incharge shall inspect the work and if there is no defect in the work, shall furnish the contractor with a final certificate of completion, otherwise a provisional certificate of physical completion indicating defects (a) to be rectified by the contractor and/or (b) for which payment will be made at reduced rates, shall be issued. But no final certificate of completion shall be issued, nor shall the work be considered to be complete until the contractor shall have removed from the premises on which the work has been executed all scaffolding,

surplus materials, rubbish and all huts and sanitary arrangements required for his/their work

people on the site in connection with the execution of the works as shall have been erected or constructed by the contractor(s) and cleaned off the dirt from all wood work, doors, windows, walls, floor or other parts of the building, in, upon, or about which the work is to be executed or of which he may have had possession for the purpose of the execution; thereof, and not until the work shall have been measured by the Engineer Incharge. If the contractor shall fail to comply with the requirements of this Clause as

to removal of scaffolding, surplus materials and rubbish and all huts and sanitary arrangements as aforesaid and cleaning off dirt on or before the date fixed for the completion of work, the Engineer Incharge may at the expense of the contractor remove such scaffolding, surplus materials and rubbish etc., and dispose

of the same as he thinks fit and clean off such dirt as aforesaid, and the contractor shall have no claim in respect of scaffolding or surplus materials as aforesaid except for any sum actually realized by the sale thereof.

13.1 Completion Plan to be submitted by the Contractor

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

the contractor fails to submit the completion plan as aforesaid, he shall be liable to pay a sum upto 2.5% of the value of the work actually executed or tendered amount whichever is more subject to a

ceiling of Rs.25,000(Rs. twenty five thousand) only as may be fixed by the Registrar JNAFA U and in this respect his decision shall be final and binding on the contractor.

#### 14.1 . Material to be provided by the Contractor

The contractor shall, at his own expense, provide all materials, required for the works. The contractor shall, at

his own expense and without delay, supply to the Engineer Incharge samples of materials to be used on the work and shall get these approved in advance. All such materials to be provided by the Contractor

shall be in conformity with the specifications laid down or referred to in the contract. The contractor shall, if requested by the Engineer Incharge furnish proof, to the satisfaction of the Engineer Incharge,

that the materials so comply with the specifications. The Engineer Incharge shall within thirty days of supply of samples or within such further period as he may require intimate to the Contractor in writing whether samples are approved by him or not. If samples are

not approved, the Contractor shall forthwith arrange to supply to the Engineer Incharge for his approval, fresh samples complying with the specifications laid down in the contract. When materials are required to be tested in accordance with specifications, approval of the Engineer Incharge shall be issued after the test results

are received. The Contractor shall at his risk and cost submit the samples of materials to be tested or analyzed and shall not make use of or incorporate in the work any materials represented by the samples until the required tests or analysis have been made and materials finally approved by the Engineer Incharge. The Contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of materials. The contractor shall, at his risk and cost, make all arrangements and shall provide all facilities as the Engineer Incharge may require for collecting, and preparing the required number of samples for such tests at such time and to such place or places as may be directed by the Engineer Incharge and bear all charges and cost of testing unless specifically provided for otherwise elsewhere in the

contract or specifications. The Engineer Incharge or his authorized representative shall at all times have access to the works and to all workshops and places where manufacturing is being done. The Engineer Incharge shall have full powers to require the removal from the premises of all materials which in his opinion are not in accordance with the specifications and in case of default, the Engineer Incharge shall be at liberty to employ at the expense of the

contractor, other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials. The Engineer Incharge shall also have full powers to require other proper materials to be substituted thereof and in case of default, the Engineer Incharge may cause the same to be supplied and all costs of which may attend such removal and substitution shall be borne by the Contractor.

#### 14.2 Dismantled Material – Institute Property

The contractor shall treat all materials obtained during dismantling of a structure, excavation of the site for a work, etc. as Institute's property and such materials shall

be disposed off to the best advantage of Institute according to the instructions in writing issued by the Engineer Incharge.

15. Work to be Executed in Accordance with Specifications, Drawings, Orders etc. The contractor shall execute the whole and every part of the work in the most substantial and workmanlike manner both as regards materials and otherwise in every respect in strict accordance with the specifications. The contractor shall also conform exactly, fully and faithfully to the design, drawings and instructions in writing in respect of the work signed by the EE

(Bldg) and the contractor shall be furnished free of charge one copy of the contract documents together with specifications, designs, drawings.

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

#### 16 . Alterations in specifications and designs

The Engineer Incharge shall have power to make alteration in, omissions from, additions variations to, or substitutions for the original specifications, drawings, design s and

instructions that may appear to him to be necessary or advisable during the progress of the work and the contractor shall be bound to carry out the works in accordance with any instruction given to him in writing by the Engineer Incharge and such alterations, omissions, additions or substitutions

shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main work except as hereafter provided.

16.1 The time for completion of the works shall, in the event of any deviations resulting in additional cost over the tendered amount being ordered, be extended, if requested by the contractor, as follows:

(i) In the proportion which the additional cost of the altered, additional or substituted work, bears to the original tendered amount plus

(ii) 25% of the time calculated in (i) above or such further additional time as may be considered reasonable by the Registrar, JNAFAU.

#### 16.2 Deviation, Extra Item and Pricing

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

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

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

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

#### Deviation, Deviated Quantities and Pricing

In the case of contract items, substituted items, contract cum substituted items, which exceed the limit of 30% of the tendered amount, the contractor may within

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

16.3 The provisions of the condition

16.2 shall also apply to the decrease in the rates of items for the work in excess of the limit of 30% of the tendered amount and the Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.

16.4

The contractor shall send to the Engineer-in-Charge once every three months, an up to date account giving complete details of all claims for additional payments to which the contractor may consider himself entitled and of all additional work ordered by the Engineer-in-Charge which he has executed during the preceding quarter failing which the contractor shall be deemed to have waived his right. However, the Engineer Incharge may authorise consideration of such claims on merits.

16.5 The following works shall be treated as works relating to foundation unless and otherwise defined in the contract:

i) For buildings: All works up to 1.2 meter above ground level or up to floor level whichever is lower.

ii) For abutments, piers and well staining: All works up to 1.2 meter above the bed level.

iii) For retaining walls, wing walls, compound walls, chimneys, over head reservoirs/tanks and other elevated structures : All works up to 1.2 meter above the ground level.

iv) For reservoirs/tanks (other than overhead reservoirs/tanks): All works up to 1.2 meter above the ground level.

v) For basement: All works up to 1.2 meter above ground level or up to floor level whichever is lower.

16.6 For roads: All items of excavation and filling including treatment of sub

base. Any operation incidental to or

necessary for proper execution of the item included in the Schedule of quantities or in the schedule of rates mentioned above, whether or not, specifically indicated in the description of the item and the

relevant specifications, shall be deemed to be included in the rates quoted by the contractor or the rate given in the said schedule of rates, as the case may be. Nothing extra shall be admissible for such operations.

17. Foreclosure of contract due to Abandonment or Reduction in Scope of Work If at any time after acceptance

of the tender, Institute decide to abandon or reduce the scope of the works for any reason, whatsoever, and hence not require the whole or any part of the work to be carried out, the Engineer Incharge shall give notice in writing to that effect to the contractor and the contractor shall act accordingly in the matter. The

contractor shall have no claim to any payment of compensation or otherwise, whatsoever, on account of any profit or advantage which he might have derived from the execution of the works in full but which he did not derive in consequence of the foreclosure of the whole or part of the works. He shall have no claim for compensation by reason of any alteration having been made in the original specifications, drawings, designs and instructions which shall involve any curtailment of work as originally contemplated.

18. Action and Compensation Payable in case of Bad Work

If the contractor at any time makes default during currency of work or does not execute any part of the work with due diligence and continues to do so even after a notice in writing from the Engineer Incharge:

OR

commits default in complying with any of the term and condition of the contract and does not remedy it or takes effective steps to remedy it within 7 days even after notice in writing is given in that behalf by the Engineer Incharge;

OR

fails to complete the work(s) or items of work with individual dates of completion, on or before the date(s) so determined, and does not complete them within the period specified in the notice given in writing in that behalf by the Engineer Incharge. The Engineer Incharge without invoking action under condition 10 may, without prejudice to any other right

or remedy against the contractor which have either accrued or accrue thereafter to the Institute, by a notice in writing to take the part work / part incomplete work of any item(s) out of his hands and shall have powers to: (a)

Take possession of the site and any material, constructional plant, implement, store, etc., thereon; and/or

(b) Carry out the part work / part incomplete work of any item(s) by any means at the risk and cost of the contractor.

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

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

or to be incurred by Institute in completing the part work/ part incomplete work of any item(s) or the excess, loss, damages suffered or may be suffered by Institute as aforesaid after allowing such credit shall, without prejudice to any other right or remedy available to the Institute in law or as per agreement, be recovered from any money due to the contractor on any account, and if such money is insufficient,

the contractor shall be called upon in writing and shall be liable to pay the same within 30 days. If the contractor fails to pay the required sum within the aforesaid period of 30 days, the Engineer Incharge shall have the right to sell any or all of the contractors' unused materials, constructional plant, implements, temporary building at site etc.

and adjust the proceeds of sale thereof towards the dues recoverable from the contractor under the contract and if thereafter there remains any balance outstanding, it shall be recovered in accordance with the provisions of the contract.

In the event of above course being adopted by the Engineer Incharge, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any material or entered into any engagement or made any advance on any account or with a view to the execution of the work or the performance of the contract.

19 . Suspension of Work

The contractor shall, on receipt of the order in writing of the Engineer Incharge, (whose decision shall be final and binding on the contractor) suspend the progress of the works or any part thereof for such time and in such manner as the Engineer Incharge may consider necessary so as not to cause any damage or injury to the work already done or endanger the safety thereof for any of the following reasons:

(a) On account of any default on the part of the contractor; or

(b)

for proper execution of the works or part thereof for reasons other than the default of the contractor; or

(c) for safety of the works or part thereof.

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

#### 20. Action in case Work not done as per Specifications

All works under or in course of execution or executed in pursuance of the contract shall at all times be open and accessible to the inspection and supervision of the Engineer Incharge, his authorized subordinates in charge of the work and all the superior officers, officer of the Quality Assurance Unit of the Institute or any organization engaged by the Institute for Quality Assurance and the contractor shall, at all times, during the

usual working hours and at all other times at which reasonable notice of the visit of such officers has been given to the contractor, either himself be present to receive orders and instructions or have a responsible

agent duly accredited in writing, present for that purpose. Orders given to the Contractor's agent shall be considered to have the same force as if they had been given to the contractor himself.

If it shall appear to the Engineer Incharge or his authorized subordinates incharge of the work or to the officer in charge of Quality Assurance Unit or his subordinate officers or the officers of the organization engaged by the Institute for Quality Assurance that any work has been executed with unsound, imperfect, or unskillful workmanship, or with materials or articles provided by him for the execution of the work which are unsound or of a quality

inferior to that contracted or otherwise not in accordance with the contract, the contractor shall, on demand

in writing which shall be made within twelve months of the completion of the work from the Engineer Incharge specifying the work, materials or articles complained of notwithstanding that the same may have been passed, certified and paid for, forthwith rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and

suitable materials or articles at his own charge and cost. In the event of the failing to do so within the period specified by the Engineer In charge in his demand aforesaid, then the contractor shall be liable to pay compensation at the same rate as under condition

9 of the contract (for non-completion of the work in time) for this default. In such case the Engineer In charge may not accept the item of work at the rates applicable under the contract but may accept

such items at reduced rates as he may consider reasonable, if the item is so acceptable without detriment to the safety and utility of the item and the structure or he may reject the work outright

without any payment and/or get it with other connected and incidental items rectified, or removed and

re-executed at the risk and cost of the contractor. Decision of the Engineer Incharge to be conveyed in writing in respect of the same will be final and binding on the contractor.

#### 21. Contractor Liable for Damages, Defects during 12 months of Defects Liability Period:

If the contractor or his working people or servants shall break, deface, injure or destroy any part of building in which they may be working, or any building, road, road kerb, fence, enclosure, water pipe, cables, drains, electric or telephone post or wires, trees, grass or grassland, or cultivated ground contiguous to the premises on which the work or any part thereof is being executed, or if any damage shall happen to the work while in progress, from

any cause whatever or if any defect or other faults appear in the work within twelve months after a certificate final or otherwise of its completion shall have been given by the Engineer in charge as aforesaid arising out of defect or improper materials or workmanship the contractor shall upon receipt of a notice in writing from the Engineer in charge on that behalf make the same good at his own

expense or in default the Engineer in charge cause the same to be made good by other workmen and deduct the expense from any sum that may be due or at any time thereafter may become due to the contractor or from his performance security or security deposit.

The security deposit of the contractor shall not be refunded before the expiry of twelve months after the issue of the certificate, final or otherwise, of completion of work, or till the final bill has been prepared and passed whichever is later.

## 22. Contractor to Supply Tools & Plants etc

The contractor shall provide at his own cost all materials, tools, plant, appliances, implements, ladders, cordage, tackle, scaffolding and temporary works required for

the proper execution of the work, whether original, altered or substituted and whether included in the

specifications or other documents forming part of the contract or referred to in these conditions or not, or which may be necessary for the purpose of satisfying or complying with the requirements of the Engineer in charge as to any matter as to which under these conditions he is entitled to be satisfied, or which he is entitled to require together

with carriage therefor to and from the work. The contractor shall also supply without charge the requisite number of persons with the means and materials, necessary for the purpose

of setting out works, and counting, weighing and assisting the measurement or examination at any time and from time to time of the work or materials. Failing his so doing, the same may be provided by the Engineer in charge at the expense of the contractor and the expenses may be deducted, from any money due to the contractor, under this contract or otherwise and/or from his performance security and security deposit.

### 22.1 Recovery of Compensation paid to Workmen

In every case in which by virtue of the provisions sub-section (1) of Section 12, of the Workmen's Compensation Act, 1923, Institute is obliged to pay compensation to a workman employed by the contractor in execution of the works, the Institute shall recover from the contractor the amount of the compensation so paid; and, without prejudice to the rights of the Institute under sub-section (2) of Section 12, of the said Act, the Institute shall be at liberty to recover such amount or any part thereof by deducting it from the performance security and security deposit or from any sum due by Institute to the contractor whether under this contract or otherwise.

### 22.2 Ensuring Payment and Amenities to Workers if Contractor fails :-

In every case in which by virtue of the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 and of the Contract Labour (Regulation and Abolition) Central Rules, 1971, Government is obliged to pay any amounts of wages to a workman employed by the contractor in execution of the works, or to incur any expenditure

in providing welfare and health amenities required to be provided under the above said Act and the rules under clause 23H or under the CPWD Contractor's Labour Regulations, or under the Rules framed by Government from time to time for the protection of health and sanitary arrangements for workers employed by Institute Contractors, Government will recover from the contractor the amount of wages so paid or the amount of expenditure so

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

23. Labour Laws and Minimum Wages Act to be complied with:

The contractor shall comply with all the provisions of all the labour laws and Minimum Wages Act, 1948 amended from time to time and rules and regulations made there under. List of labour laws and minimum wages act is given below

- a) Contract labour (Regulation and Abolition) Act 1970
- b) Contract labour (Regulation and Abolition) Central Rules 1971
- c) CPWD Contractor's Labour Regulations
- d) Child Labour (Prohibition and Regulation) Act 1986
- e) Building and other Construction workers (Regulation of Employment and Conditions of Service) Act 1966
- f) Building and other Construction Workers Welfare Cess Act 1966
- g) Payment of Wages Act 1936
- h) Minimum Wages Act 1948
- i) Minimum Wages (Central) Rules 1950
- j) Employees Liability Act 1938
- k) Workmen's Compensation Act 1923
- l) Industrial Disputes Act 1947
- m) Maternity Benefits Act 1961
- n) CPWD Safety Code
- o) All the Rules for the Protection of Health and Sanitary arrangement for workers framed by the Government from time to time
- p) Rules of the Local Public Health and Medical Authority for the Sanitation of Labour Huts

The Contractor shall also comply with any other labour law affecting contract labour that may be brought into force from time to time.

24. Work not to be sublet. Action in case of insolvency

The contract shall not be assigned or sublet without the written approval of the Engineer Incharge. If the contractor shall assign or sublet his contract, or attempt to do so, or become insolvent or commence any insolvency proceedings or make any composition with his creditors or attempt to do so, or if any bribe, gratuity, gift, loan, perquisite, reward

or advantage pecuniary or otherwise, shall either directly or indirectly, be given, promised or offered by the contractor, or any of his servants or agent to any public officer or person in

the employ of Institute in any way relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract, the Engineer Incharge on behalf of the Registrar, JNAFAU shall have power to adopt the course specified in Clause 3 hereof in the interest of Institute and in the event of such course being adopted, the consequences specified in the said Clause 3 shall ensue.

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



## 26. Changes in firm's Constitution

Where the contractor is a partnership firm, the previous approval in writing of the EE (Bldg) shall be obtained before any change is made in the constitution of the firm.

Where the contractor is an individual or a Hindu undivided family

business concern, such approval as aforesaid shall likewise be obtained before the contract or enters

into any partnership agreement where under the partnership firm would have the right to carry out the works hereby undertaken by the contractor. If previous approval as aforesaid is not obtained, the contract shall be deemed to have been assigned in contravention of condition 24 hereof and the same action may be taken, and the same consequences shall ensue as provided in the said condition 24.

## 27. Works to be under direction of Engineer Incharge

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

## 28 . Settlement of Disputes & Arbitration

Except where otherwise provided in the contract, all questions and disputes relating to the meaning of the specifications, designs, drawings and instructions here-in before mentioned and as to the quality of workmanship or materials used on the work or as to any

other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works or the execution or failure to execute

the same whether arising during the progress of the work or after the cancellation, termination, completion or abandonment thereof shall be dealt with as mentioned hereinafter: If the contractor considers any work demanded of him to be outside the requirements of the contract, or disputes any drawings, record or decision given in writing

by the Engineer Incharge on any matter in connection with or arising out of the contract or carrying out of the work, to be unacceptable, he shall promptly within 15 days request the Engineer Incharge in writing for written instruction or decision. Thereupon, the Engineer Incharge shall give his written instructions or decision within a period of one month from the receipt of the contractor's letter.

If the Engineer Incharge fails to give his instructions or decision in writing within the aforesaid period or if the contractor is dissatisfied with the instructions or decision of the Engineer Incharge, the contractor may, within 15 days of the receipt of Engineer Incharge's decision, appeal to the Registrar, JNAFAU

who shall afford an opportunity to the contractor to be heard, if the latter so desires, and to offer evidence in support of his appeal. The JNAFAU shall give his decision within 30 days of receipt of contractor's appeal.

If the contractor is dissatisfied with the decision of the Registrar, JNAFAU he may within 30 days from the receipt of the Registrar, JNAFAU decision demand appointment of

sole arbitrator, failing which the said decision shall be final, binding and conducive and shall not be referable to adjudication by arbitrator.

On receipt of demand the JNAFAU shall appoint sole arbitrator.

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

It is a term of this contract that the party invoking arbitration shall give a list of disputes with amounts claimed in respect of each such dispute along with the

notice

for appointment of arbitrator and giving reference to the rejection of the appeal by the Registrar, JNAFAU.

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

The arbitration shall be conducted in accordance with the provisions of the Arbitration and Conciliation Act, 1996 (26 of 1996) or any statutory modifications

or re-enactment thereof and the rules made there under and for the time being in force shall apply to the arbitration proceeding under this clause. It is also a term of this contract that the arbitrator shall adjudicate on only such disputes as are referred to him by the appointing authority and give separate award against each dispute and claim referred to him.

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

the parties. It is also a term of the contract that the arbitrator shall be deemed to have entered on the reference on the date he issues notice to both the parties calling them to submit

their statement of claims and counter statement of claims. The venue of the arbitration shall be such place as may be fixed by the arbitrator in his sole discretion. The fees, if any, of

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

#### 29. Contractor to indemnify Institute against Patent Rights

The contractor shall fully indemnify and keep indemnified the Registrar, JNAFAU against any action, claim or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalty which may be payable in respect of any article or part thereof included in the contract. In the event of any claim made under or action brought against Institute in respect of any such matters as aforesaid,

the contractor shall be immediately notified thereof and the contractor shall be at liberty, at his own expense, to settle any dispute or to conduct any litigation that may arise there from, provided that the contractor shall not be liable to indemnify the Registrar, JNAFAU if

the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the Engineer Incharge in this behalf.

#### 30 . Lumpsum Provision in Tender

When the estimate on which a tender is made includes lump sum in respect of parts of the work, the contractor shall be entitled to payment in respect of the items of work involved or the part of the work in question at the same rates as are payable under his contract for such items,

or if the part of the work in question is not, in the opinion of the Engineer in Charge payable of measurement, the Engineer-in-Charge may at his discretion pay the lump-sum amount entered in the estimate, and the certificate in writing of the Engineer-in-Charge shall be final and conclusive against the contractor with regard to any sum or sums payable to him under the provisions of the clause.

#### 31. Action where no Specifications are specified

In the case of any class of work for which there is no such specification as referred to in condition 15, such work shall be carried out in accordance with the Bureau of Indian Standards Specifications. In case there are no such specifications in Bureau of Indian Standards, the work shall be carried out as per manufacturers' specifications. In case there are no such specifications as required above, the work shall be carried out in all respects in accordance with the instructions and requirements of the Engineer Incharge.

### 32. Withholding and Lien in respect of sum due from contractor

i. Whenever any claim or claims for payment of a sum of money arises out of or under the contract or against the contractor, the Engineer Incharge shall be entitled to withhold and also have a lien to retain such sum

or sums in whole or in part from the security deposit, and also have a lien over the same pending finalization or

adjudication of any such claim. In the event of the security deposit being insufficient to cover

the claimed amount or amounts the Engineer Incharge shall be entitled to withhold and have a lien to retain to the extent of such claimed amount or amounts referred to above, from any sum or sums found payable or which may at any time thereafter become payable to the contractor under the same contract or any other

contract with the Engineer Incharge pending finalization of adjudication of any such claim. It is an agreed term of the contract that the sum of money or moneys so withheld or retained

under the lien referred to above by the Engineer Incharge will be kept withheld or retained as such by the Engineer

Incharge till the claim arising out of or under the contract is determined by the arbitrator (if the contract is governed by the arbitration clause) or by the competent court, as the case may be, and that the contractor will have

no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to above and duly notified as such to the contractor. For the purpose of this

clause, where the contractor is a partnership firm or a limited company, the Engineer Incharge shall be entitled

to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner/limited company as the case may be, whether in his individual capacity or otherwise.

ii. Institute shall have the right to cause an audit and technical examination of the works and the final bills

of the contractor including all supporting vouchers, abstract, etc., to be made after payment of the final bill and if as a result of such audit and technical examination any sum is found to have been overpaid in respect of

any work done by the contractor under the contract or any work claimed to have been done by him under the contract and found not to have been executed, the contractor shall be liable to refund the amount of over-payment and it shall be lawful for the Engineer Incharge to recover the same from him in the

manner prescribed in sub-clause (i) of this clause or in any other manner legally permissible

### 33. Lien in respect of claims in other contracts

Any sum of money due and payable to the contractor (including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the Engineer Incharge.

It is an agreed term of the contract that the sum of money so withheld or retained under this clause by the Engineer Incharge will be kept withheld or retained as such by the Engineer Incharge till his claim arising out of the same contract or any other contract is either mutually settled or determined by the arbitration

clause or by the competent court, as the case may be, and that the contractor shall have no claim for interest or damages whatsoever on this account or on any other

ground in respect of any sum of money withheld or retained under this clause and duly notified as such to the contractor.

**34. Levy/Taxes payable by Contractor**

(i) GST, Building and other Construction Workers Welfare Cess or any other tax or Cess in respect of this contract shall be payable by the contractor and the Institute shall not entertain any claim whatsoever in this respect.

(ii) The contractor shall deposit royalty and obtain necessary permit for supply of the minor minerals.

**35. Termination of Contract on death of contract**

Without prejudice to any of the right or remedy under this contract, if the contractor dies, the Engineer Incharge on behalf of the JNAFAU shall have the option of terminating the contract

**36. Release of Security deposit after labour clearance**

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

**Annexure – A**

**SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF LIFT FOR SPA BUILDING JNAFAU, Hyderabad.**

<b>S.No</b>	<b>Description of Item</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate</b>	<b>Amount</b>
	Supply, Installation, Testing and Commissioning of Passenger Liftsof original equipment manufacturers of Capacity 06 Passenger/544 Kg speed 1m/Sec, with V3f drive geared machine unit, serving Ground Floor + 5 upper floors, 6 Stops/ 6 openings/ 6 Levels, entrance positions all EACH on the same side, machine r oom location on topof shaft, car enclosure to be stainless steel hairline finish panels should be as per IS/ manufacturers specifications. (For Detailed Specifications Refer Technical Specific ations	No.	01		
	TOTAL AMOUNT (in Rs)				<b>14,00000</b>

**Annexure – A1**

SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF LIFT FOR  
CFA BUILDING JNAFAU, Hyderabad.

S.No	Description of Item	Unit	Qty	Rate	Amount
	Supply, Installation, Testing and Commissioning of Passenger Lifts of original equipment manufacturers of Capacity 06 Passenger/544 Kg speed 1m/Sec, with V3f drive geared machine unit, serving Ground Floor + 3 upper floors, 4 Stops/ 4 openings/ 4 Levels, entrance positions all EACH on the same side, machine room location on top of shaft, car enclosure to be stainless steel hairline finish panels should be as per IS/ manufacturers specifications. (For Detailed Specifications Refer Technical Specifications	No.	01		
	TOTAL AMOUNT (in Rs)				<b>12,00000</b>

**Annexure – A2**

COMPREHENSIVE MAINTENANCE OF LIFT FOR MAIN BUILDING AT JNAFAU  
CAMPUS, NEW DEHI SCHEDULE OF QUANTITY

S. No	Description of Item	Unit	Qty	Rate	Amount
	Comprehensive maintenance of lift including routine, preventive & break down maintenance for a period of five years including consumables, repairs / replacement of worn out items with minimum down time and warranty & guarantee of repaired/replaced items after completion of one year defect liability period. (Maintenance period shall commence after expiry of defect liability period i.e. 12 months)	1 <sup>st</sup> Year	02 Lift		
		2 <sup>nd</sup> year	02 Lift		
		3 <sup>rd</sup> year	02 Lift		
		4 <sup>th</sup> year	02 Lift		
		5 <sup>th</sup> year	01 Lift		
	TOTAL AMOUNT (in Rs)				

Note: The rate should cover the regular servicing, intermediate service calls, consumables, repairs and replacement of worn out parts.

## Annexure – B

SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF LIFT FOR SPA & CFA BUILDING AT JNAFAU Campus.

Mile Stones for Completion of Work

Mile Stone	Description	Target Period
1 <sup>st</sup>	Supply of lifts at the site of work conforming to technical specifications	2.5 Months
2 <sup>nd</sup>	Installation of lifts at the site conforming to technical specifications	1.0 Months
3 <sup>rd</sup>	Testing and Commissioning of lifts as per technical specifications	0.5 Months
	Total period for completion of work	4.0 Months

## Annexure – C1

SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF LIFT FOR SPA & CFA BUILDING AT JNAFAU Campus.

Payment Schedule

Intermediate payments shall be made as under

S. No.	Description	Percentage of Tended Amount
1	Supply of lift at the site of work conforming to technical specifications	60
2	Installation of lift at the site conforming to technical specifications	25
3	Testing of lifts as per technical specifications	10
4	Commissioning of lift	5

## Annexure – C2

PAYMENT SCHEDULE

FOR

COMPREHENSIVE MAINTENANCE OF LIFT AFTER EXPIRY OF DEFECT LIABILITY PERIOD FOR SPA & CFA BUILDING AT JNAFAU Campus.

The Payment Shall be made on half yearly basis