

**INSTITUTE FOR PLASMA RESEARCH**  
**NEAR INDIRA BRIDGE, BHAT, GANDHINAGAR 382 428**  
**GUJARAT STATE**

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**TENDER NOTICE DATED 29-6-2016**

Sealed tenders are invited in **TWO PART** from reputed and eligible parties for the following.

Sr. No	Tender Notice No.	Item	Qty.	Due Date & Time for		Tender Fee (Rs.)	EMD (Rs.)
				Submission of tender	Opening of tender		
1.	IPR/TN/ PUR/5/16- 17 (TWO PART TENDER)	Design, fabrication, testing, supply, installation and commissioning of 25 Ton Double Girder EOT Crane for PEB Lab building at IPR site	1 No.	10-8-2016 by 1.00 p.m.	10-8-2016 at 2.30 p.m.	1000.00	60000.00

Tender documents are available on IPR Website : <http://www.ipr.res.in/documents/tenders.html>. Tenderers meeting the eligibility criteria mentioned in the tender documents may, at their option, download the tender documents from the website and submit their offer along with prescribed **Tender Fee (non refundable) and EMD** in the form of Demand Draft from any nationalized/scheduled bank drawn in favour of **Institute for Plasma Research** and payable at **Ahmedabad** as per the details given in the tender documents. It is to be noted that all further updates or amendments if any regarding the tender dates, specifications and terms & conditions shall be notified and uploaded on the IPR website and no separate corrigendum would be published in this regard. Therefore, interested bidders need to visit the website of IPR on a regular basis for such updates. In case party desires to collect the tender documents by post, they may contact the Purchase Officer along with prescribed tender fee. Tender documents will be issued upto **1-8-2016.**

Representative who is going to attend the tender opening should carry an authorization letter from the organization for participation in the tender opening failing which he/she will not be allowed to attend the tender opening.

**TENDER NOTICE No.IPR/TN/PUR/5/16-17 DATED 29-6-2016**  
**(TWO PART)**

**For Design, fabrication, testing, supply, installation and commissioning of 25 Ton Double Girder EOT Crane for PEB Lab building at IPR site – 1 No.**

**NOTE: THIS IS A TWO PART TENDER. KINDLY SUBMIT TECHNO-COMMERCIAL BID (PART-A) AND PRICE BID (PART-B) SEPARATELY IN TWO DIFFERENT ENVELOPES SUPERSCRIBING TECHNICAL BID AND PRICE BID IN ONE SINGLE ENVELOPE**

**NOTE:**

1. Full details and specifications of the items and general instructions to be followed regarding submission of tenders are indicated in the tender documents.
2. **Proof for fulfillment of eligibility criteria mentioned hereunder should be submitted along with the tender. If the tender is submitted without valid documents, we shall not consider your offer. Tenders received without proof of eligibility criteria will be rejected.**
3. Tender documents can also be obtained by submitting a written request to the Purchase Officer together with prescribed tender fee, provided that the eligibility criteria is fulfilled. Last date for issue of Tender documents is 1-8-2016.
4. While requesting for Tender Documents, such request shall indicate **the “REQUEST FOR TENDER DOCUMENTS AGAINST TENDER NOTICE NO.IPR/TN/PUR/5/16-17 DATED 29-6-2016”.**
5. **The tender fee of Rs.1,000/- (non-refundable) should be made in the form of DEMAND DRAFT issued in favour of *Institute for Plasma Research* and payable at *Ahmedabad*. Vendor's name and tender number shall be indicated on the reverse side of the Demand Draft.**
6. **DD should not be prior dated to the date of advertisement. Separate request letter and separate Demand Draft shall be sent for each tender.**
7. **Those who use the downloaded tender documents from IPR Website may submit the prescribed Tender Fee keeping in a separate envelope along with the tender.**
8. **Tenders received without the prescribed tender fee will be rejected.**
9. No request for the extension of due date will be considered.

10. Late/Delayed offers will not be accepted.
11. **Tender in a sealed envelope (Technical Bid, Commercial terms and conditions and EMD [Part-A] in one envelope and Price Bid [Part-B] in another envelope) superscribing the envelope with the above tender no., date, due date and brief description of tendered item should be submitted to the *Purchase Officer* at the above address by 1.00 p.m. on 10<sup>th</sup> August, 2016. Part-A (Technical Bid along with Tender Fee of Rs.1,000/-, commercial terms and conditions and EMD for Rs.60,000/-) received upto 1.00 p.m. on 10-8-2016 will be opened on the same day at 2.30 p.m. in the presence of attending tenderers.**
12. In the event of any date indicated above is a declared Holiday, the next working day shall become operative for the respective purpose mentioned herein.
13. IPR will not be responsible for any delay/loss of documents in transit.
14. Tenders received without the details asked for including proof of eligibility for participating in the tender may not be considered.
15. Tenderers should furnish/enclose full technical details/literature, delivery period and confirm the terms and conditions attached with the tender.
16. **Those who do not meet with the eligibility criteria need not submit Tender.**
17. **Those who are quoting on behalf of their foreign Principals should submit a Proforma Invoice of Foreign Principals in foreign currency.**
18. The Director, IPR reserves the right to accept or reject any offer in full or part thereof without assigning any reason thereof.
19. **Quotations received without EMD will not be considered.**
20. **AUTHORITY LETTER**
  - 20.1 **The representative who is going to attend the tender opening should carry an authorization letter from the organization for participation in the tender opening failing which he will not be allowed to participate in the tender opening.**
  - 20.2 **The tenderers representative, who reaches the venue of the tender opening late, i.e. after the starting time specified for opening of the tenders, may not be allowed to take part in the tender opening. It should be noted that only one representative of each tenderer will be permitted to participate in the tender opening.**

**ELIGIBILITY CRITERIA:**

**(The bidder is required to submit all supporting documents as proof for the compliance of the following criteria. The attachments must be serially labelled with the number as given in the table below. Bids received without valid documents and/or incomplete and irrelevant documents are likely to be rejected summarily)**

<b>Sr. No.</b>	<b>Essential Eligibility compliance</b>	<b>Evidence for submission</b>	<b>Attachment Sr.No. of proofs and evidence</b>
1.	Bidder should be a manufacturer and should have ISO Certificate and satisfactory evidence to show that they are licensed manufacturer, has adequate plant and manufacturing capacity and has a quality assurance programme	Copy of valid ISO certificate and manufacturing licence issued by the competent authority & company profile should be submitted as a proof	
2.	Bidders should have prior work experience of similar kind of work and must have supplied and commissioned at least 1 OR 2 Cranes of 20 ton capacities or more in the past three years (2012-2015) and such crane is presently working satisfactorily for more than one year after commissioning	Copies of Purchase order with technical details along with work completion/installation certificate/performance certificate should be submitted as a proof	
3.	Bidders should have supplied and installed cranes of single order value of 50 lakhs OR above for 20T crane or above in the last three years (2012-2015)	Copies of Purchase order with technical details along with work completion/installation certificate should be submitted with name of contact person, address, phone/mobile number etc. as a proof	
4.	Bidders should have in house or access to test facility of this type of crane.	List of test facilities available with bidders is to be furnished	
5.	The bidder must have an average annual turnover of not less than Rs.150 lacs over the past three financial years (2012-2013 to 2014-2015)	Audited balance sheet and Profit & Loss Account) for the past three financial years (2012-2013 to 2014-2015)to be submitted	

**NOTE: Issue of tender documents does not mean that a vendor is qualified to submit tenders. IPR's decision to consider as to whether a vendor has met with the eligibility criteria is final.**

**Title: Design, Fabrication, and installation of Top running type 25 ton double girder EOT Crane for PEB Lab building**

General technical Specification for EOT Crane

**Technical Specification for 25 T EOT crane**

- |   |   |   |
|---|---|---|
| 1)  | <b>Scope of work</b>                                | Design, Fabrication, manufacturing, testing, packing, forwarding, transportation to site, unloading, furnishing of final drawings and manuals, handling at site, erection, commissioning, performance demonstration and performance acceptance etc. of 25 ton, double girder EOT Crane, to make the system complete in all respects [including LT (Down Shop Lead) DSL, LT Rail, LT Gantry Girder and required civil work as per technical Specification for Double Girder EOT crane of tender document |
| 2)  | <b>Location</b>                                     | <b>PEB LAB building</b>   |
| 3)  | <b>Designation /Type</b>                            | Top running EOT   |
| 4)  | <b>Duty Class of Crane<br/>(As per IS:807-2006)</b> | M5  |
| 5)  | <b>Quantity</b>                                     | 01  |
| <b>Crane Classification as per IS 13834</b> |   |   |
| 6)  | <b>Mechanical</b>                                   | M5  |
| 7)  | <b>Electrical</b>                                   | M5  |
| 8)  | <b>Type</b>   | Overhead  |
| 9)  | <b>Type of Girder</b>                               | Double  |
| <b>Constructional Details</b>               |   |   |
| 10)   | <b>Girder Construction</b>                          | Box Girder of steel as per IS 2062  |
| 11)   | <b>End carriages</b>                                |   |
| <b>Capacity</b>                             |   |   |
| 12)   | <b>Main Hoist</b>                                   | 20 Ton  |
| 13)   | <b>Auxiliary hoist</b>                              | 5 Ton   |
| 14)   | <b>Span</b>   | ~20 ± 2 m   |
| 15)   | <b>Longitudinal Travel</b>                          | ~100 ±5 m   |
| <b>Lifting Range</b>                        |   |   |
| 16)   | <b>Main Hoist</b>                                   | ~ 16 m  |

**Type of Hook**

17) Main Hook /Auxiliary hook Plain shank with swiveling.

**Speeds in**

18) Main Hoist 3.0 meter /min

19) Long Travel 20.0 meter/min

20) Cross Travel 16.0 meter/min

21) Creep Speed Pre-settable. Minimum 10% to 100% in steps of 10% of full speeds by VVVF

**Operating Mode**

21) Pendant Push button trailing type

22) Remote Control Wireless remote control

# **Annexure 1: Technical Requirements**

## **1. Introduction**

This crane will be installed in PEB building of that will be constructed in front of new ITER laboratory near HP area. The technical specifications of electric overhead traveling crane top running type are as given in tender document. The detailed view of the PEB building where the crane will be installed is as shown in annexure-II. The crane will be class II EOT type with capacity of 25 T

## **2. Type of Crane**

Top-Running double girder EOT type crane

## **3. Service condition**

Indoor operation with minimum temp 20 C and maximum temperature 40C

## **4. Scope of Supply**

Design, Fabrication, manufacturing, testing, packing, forwarding, transportation to site, unloading, furnishing of final drawings and manuals, handling at site, erection, commissioning, performance demonstration and performance acceptance etc. of 25 ton double girder EOT Crane, to make the system complete in all respects [including LT (Down Shop Lead) DSL, LT Rail, LT Gantry Girder and required no of steel Pillars with required civil work all in line with Technical Specification for double Girder EOT crane of the tender document. It consist supply of following components

1. Bridge structure with platform and hand railing
2. Track wheels for longitudinal and cross travel
3. Traveling mechanism for longitudinal and cross travel
4. Hoisting mechanism.
5. Brake Mechanism separately for long travel, cross traverse and hoisting.
6. Trolley
7. Service Platform
8. Pendant Control and wireless remote operation for all movements.
9. Electrical motors, control gear and equipment.
10. AC variable frequency controls for all motions of the crane.

## **5. Design Standards**

The cranes shall be designed, manufactured, erected and tested in accordance with following standards. In the design of crane, adequate safety factor should be taken considering worst combination of loading.

1. IS: 3177-1999 (latest) - Indian Standard Code of Practice for electric overhead traveling cranes.
2. IS: 807- 2006 - Indian Standard Code of Practice for design, manufacture, erection and testing (structural portion) of cranes and hoists.

The crane should be designed for a minimum life of 25 Years.

## **6. Capability**

The crane should be capable of:

1. Hoisting, i.e. lifting and lowering of all loads up to the maximum specified working and load at different specified speeds
2. Traveling and traversing at specified speeds in both loaded and unloaded conditions.

3. Working in the air conditioned clean building. The structure should not shed particles/dust during operation.

### **7. Rigidity, Control and Safety**

1. The crane should be rigid, robust and of sturdy construction
2. Crane controls should be conveniently located. The various controls should be suitably interlocked to prevent accidental movement of the crane.
3. Suitable limit switches, one each for long and cross travel and two for main hoists, should be provided to stop the crane and prevent over-travel of various moving parts of the crane.
4. Suitable buffers should be provided to prevent over travel of the crane mechanism in both longitudinal and cross traverse directions.
5. Suitable guards or enclosures should be provided on the crane to prevent inadvertent contact with down shop leads or any other exposed electrical conductors and cables.
6. Suitable isolation switches and stop buttons should be provided to isolate the electric supply for maintenance or in the event of an emergency.
7. A safety hand railing of tubular construction should be provided on bridge footwalls, end carriages, trolley and any other places where access has been provided.
8. All sheaves should be provided with rigid guards to retain the ropes in the grooves. Guard should fit close to the flange.
9. The crane should comply with the relevant safety regulations under the Factories Act, Indian Electricity Rules and other statutory regulations as applicable.

### **8. Maintainability**

1. Safe accesses of maintenance and removal of all mechanical, electrical and structural components must be ensured. All parts requiring replacement, inspection and lubrication should be easily accessible without the need of dismantling other equipment or structures. Arrangements for access to important components must include a cradle for inspection and maintenance of DSL, such cradle being conveniently accessible.
2. All electrical cables should be so laid that they are not liable to damage and can be easily inspected and maintained.
3. Access walkways (wherever required) of minimum 500mm clear inside width with hand railings on both sides of girders for the full span length for inspection and maintenance of the crane shall be provided. Walkways shall be of chequered plate or non-slip steel surface of minimum 6mm thick. Walkways shall be of rigid construction and designed to sustain a distributed live load of not less than 3 kN/m<sup>2</sup>.
4. Materials used for equipment and structural should be free from cracks, blow holes, laminations, pitting etc. Except for areas where a superior grade of materials is required, steel class should be as per IS: 2062 (latest).
5. A tool box containing all tools required for the maintenance of the crane should be supplied with the crane.
6. Fasteners for pedestal blocks, gear boxes, etc., should be easily removable from the top of the platform.

### **9. Structural Details**

1. The crane bridge should comprise of **double girders of box type as per standard**.
2. In the main bridge girders, in addition to the required full length diaphragms, short diaphragms should be inserted wherever required to transmit the trolley wheel load to the web plates and to limit the maximum stress in the trolley rail to safe permissible limits. All diaphragms must bear against the top flange. Steel plates used for bridge girders and diaphragms should be as per IS:2062 (latest).
3. All fasteners should be hot dip galvanized.



4. The bridge girders should be connected to the end carriages by large gusset plates. Ground tight fit bolts in reamed holes should be used for bolted connections.
5. The calculated strength of joints made by High Strength Friction Grip (HSFG) bolts should not be less than calculated net strength of the member. The calculated strength of other bolted joints in structural members should not be less than the net strength of the member plus 25%.
6. All butt weldson structural members of bridge girders subject to **tension** should be radio graphically tested. All other welds should be subjected to Magna flux or Dye Penetration Test.
7. The box girders should be so constructed as to eliminate any possibility of accumulation of water or oil inside them.

## A. Mechanical Components for EOT crane

### **1. Lifting Hooks**

Shank type plain hooks with hook latch or closing figures as per IS 3815 and IS 5749.

### **2. End Carriages/End Trucks**

1. The crane bridge should be carried on end trolleys with **double flanged solid forged wheels**. The minimum end clearance on each side of the long travel wheels should be 10mm. The wheels should be mounted on fixed axle or suitable anti-friction spherical roller bearings which can be conveniently removed for maintenance.
2. End carriages should be designed to be strong enough to resist all stresses likely to be imposed upon them under varied service conditions, including collision with stops. The length of the end carriages should be such that no other part of the crane is damaged in the event of a collision.
3. End carriages should be fabricated from rolled steel sections or plates, welded together to form a box. Suitable stiffening diaphragms should be provided wherever required. The material used should be steel as per IS: 2062(latest).
4. Suitable jacking pads should be provided on each end carriage for jacking up the crane while changing track wheels. These jacking pads should not interfere with replacement of track wheels.
5. The end carriages should be fitted with suitable **safety lugs to** prevent the crane from **falling in excess in** the event of breakage of track wheel, bogie or axle. These safety stops should not interfere with the removal of track wheels.

### **3. Bridge**

1. The bridge shall consist of double girder fabricated of structural steel sections. The bridge shall be braced for rigidity and securely fastened to end tracks to maintain proper alignment.
2. Bridge rails will be square bars of suitable size (to be supplied & installed by supplier)

### **4. Trolley and its frame**

1. The trolley frame should be welded rolled steel box section, designed to transmit the load to the bridge rails without undue deflection. It should be made rigid by providing suitable diaphragms. The material used should be steel as per IS: 2062 (latest)
2. The drum bearings and supports for upper sheaves should be located so as to equalize the load on the trolley wheels as nearly as possible.

3. The trolley wheels should be double flanged. The wheel assembly should be fitted in suitable **housing**, for easy removal of wheel assembly.
4. The trolley should be motor driven through suitable gear reducer. An electric brake shall be furnished in this drive. The drive shall be shock free on starting and stopping.
5. All the mechanical and electrical equipment should be placed above the trolley top plate as far as practicable. For any parts placed below the trolley top plate, access for maintenance, repairs and replacement should be provided.

## 5. Rail Wheels

1. The rail wheels shall be double-flanged with straight tread.
2. These wheels shall be manufactured from medium carbon alloy steels, and shall be solid forged and heat treated to have minimum hardness of 36HRC (341 BHN) on the tread and flanges to a depth of not less than 8mm. The wheels should be shrink-fit on the axles.

## 6. Rope Drums

1. The rope drum shall be designed to withstand the compressive stresses caused by the wound on rope and the bending stress due to beam action of the drum and torsional stresses
2. The steel used shall be to IS: 2062 -1984(or latest) quality. The rope drum shall be stress relieved after fabrication. Welded Joints shall be radio graphically checked.
3. The drum shall be designed to take the entire length of the rope in a single layer. Free extra turns as specified in IS: 3177 shall also be provided. The drum shall be flanged at both ends.
  - a. Cranes shall be designed with number of rope having 4 falls.
  - b. Diameter and grooving of drum should be as per IS 3177

## 7. Wire Ropes

Wire rope in the crane should be galvanized and of reputed make as per IS 2266. If it is conventional type then it will be **6 x 36 construction** made from best plough steel with required tensile strength.

## 8. Rope Sheaves

All sheaves should be of cast/forged steel. They should be identical, with the exception of the equalizer sheave. The equalizer sheave should be mounted above the trolley floor and should be easily accessible and removable from the trolley floor level. Sheave grooves should be smooth finished and free from any defects for getting increased rope life. The supplier should further ensure that wire ropes are parallel with each other. Sheaves guard should be provided.

## 9. Track Wheels

All the parameters for Track wheel design must be as per IS 3177. The minimum hardness for material used (with ref to IS 3177) in traction wheels should be 350 BHN.

## 10. Drives

1. The wheels of each end carriage should be driven by independent synchronized drive motors mounted near each end carriage.
2. A separate cross traverse motor should be used for cross traverse drive through a suitable gear box.

## 11. Bearings

1. Ball and roller anti-friction bearings shall be of reputed make. The acceptable makes will be SKF, FAG, NORMA, NRB, NTN etc
2. For long and cross traverse wheels, spherical roller bearing shall be used

## 12. Gears

**Helical gears or spur gear** should be used as per their best suitability. The gearing in all motions should be of suitable case carburizing low carbon alloy steels and should conform to relevant Indian/International standards. They shall be in accordance with IS: 4460. **All gears should be hardened and profile ground for longer life and silent operation.** The minimum surface hardness of pinion should be in the range of 270 BHN-300 BHN. The hardness of gears should not be less than 20 BHN that of pinions. All gears should be heat treated and stress relieved.

## 13. Gear Boxes

1. All gear boxes shall be of completely enclosed splash lubricated type. **All gear boxes shall be oil tight and sealed with 'O' rings of suitable section.** All gear shafts shall be supported in bearings mounted in the gear boxes. All gear boxes shall be stress relieved and the method of doing so shall be explained in detail in the offer. Gear boxes shall be provided with breather vents, easily accessible drain plugs, and a suitable oil level indicator such as a dip stick. Adequate radial clearances between the gear box inner surface and outside diameter of the gears shall be ensured and clearance proposed to be provided shall be indicated in the offer.
2. **All gear boxes should have drip pans to avoid oil falling on shop floor**

## 14. Couplings

All coupling shall be made from cast/forged steel and heat treated. It should be suitable for maximum torque operation. Flexible coupling shall be provided wherever necessary.

## 15. Fasteners

All the keys, Key ways, bolts, nuts, washer etc will be provided as per relevant IS standard for the same. All the bolts, nuts and screws shall be made up of high tensile alloy steel. All washer should be in accordance with IS 1364 and IS 1367.

## 16. BUFFERS

Spring loaded or other suitable buffers should be fitted on the four corners of the crane also at the four ends of the bridge girders. Buffers should be rigidly bolted in place, preferably along the centre line of the crane rail or trolley rail as the case may be. All buffers should have sufficient

energy absorbing capacity to stop the bridge or trolley in either direction when traveling at a speed of least 40% full load rated speed.

## 17. BRAKES

- a. The hoisting motion shall be provided with **fail-safe D.C. Disc brakes** of reputed make.
- b. The brake shall be designed in such a way that it should exert 50% more restraining torque than maximum torque transmitted to brake under given loading condition. The braking torque should not be more than motor pullout torque.
- c. Suitable type of gears for arresting cross traverse motion should be provided.

## 18. LUBRICATION

- a. All mating gears and bearings enclosed inside gear boxes should be splash lubricated. Greasing point should be provided wherever necessary.
- b. A lubricating chart and details of supplier for same should be provided in the manual, indicating all lubrication points, the type of lubricants required and the recommended frequency of lubrication.

## 19. PAINTING & COLOUR

The crane should be epoxy painting (golden yellow) after obtaining surface finish better than or equal to SA 2½. All motors, brakes and panels should also be epoxy painted.

- a. All parts of the crane shall be thoroughly cleaned of all loose mill scales, rust or foreign matter.
- b. All parts inaccessible after assembly shall be painted before assembly.
- c. The interior of all gear box housing shall be painted with two coats of oil resistant enamel paint.

## B. Electrical Components for EOT cranes

All accessories and auxiliary electrical equipment including drive motors, electrically operated brakes, controllers, AC variable frequency controls, conductors, protective devices, operating devices, cables, conduits etc. necessary for the safe and satisfactory operation and maintenance of the crane shall be included in the Vendor's scope of supply. **Electrical equipment shall be adequately rated to permit simultaneous operation of any combination of motions of the crane for its duty service.**

The scope of supply relating to electrical portion shall cover:-

1. Shrouded down shop leads.
2. **Main current Collectors (one in forward and another in rear)**
3. Power disconnecting switch on the crane bridge walk way, to be provided, immediately after the main current collection gears.
4. Motors (ABB/Siemens/Crompton Greeves/BBL/Kirloskar/LHP/GEC make with IP 55 protections).
5. Protective Switch gears
6. Motor control panels.
7. **Squirrel cage motors with variable frequency drive for all LT, CT & hoist motion.**
8. DC disc brakes for all motions
9. Limit Switches

10. Socket outlets
11. **Power and control cables CT motion cables should run in cable drag chain.**
12. Drag link cable system of reputed make like IGUS.
13. Indicating lamps
14. Double step push buttons on pendent and wireless remote control.
15. Only MCBs should be used in the crane in lieu of HRC fuses.
16. Earth wire on crane portion.
17. The control pendent should have separate movement in CT direction independently from trolley.
18. Shrouded bus bar GI conductor along with Isolator switch at the ground level. Cabling from the Isolator to the shrouded bus bar should be in vendor's scope.
19. Lighting fixtures with HPMV lamps 250W x 4 nos. under arm type operable from pendant as well as from the wireless remote control.

All sundry erection material required for installation and connecting up of electrical equipment with cable laying and fixing accessories shall be included in the price of the crane.

### **1. Motors**

1. All crane motors shall be totally enclosed fan cooled squirrel cage type with respect to IS 325, IS 1231 or IS 2233. Motor enclosure shall be as per IS 44, IS 55 or IS 25 as per their suitability. All the motors parameters should be accordance with IS 3177
2. The motor shall capable of maximum torque required for motion in most unfavorable loading condition.
3. Motors shall be capable of withstanding a maximum speed of 2.5 times rated speed or 2000 rev/min whichever is less
4. It should be located in such a way that it shall be accessible for maintenance and inspection.

### **2. Power Supply**

Power shall be available at  $415 \pm 10\%$  volts, 3 phases,  $50 \pm 3\%$  Hz

### **3. Bus Bar Conductor**

It should be provided as per relevant IS standard

### **4. Controls for Cranes**

1. **Controllers** shall be as per relevant Indian standards. Controllers shall be adequately protected to prevent accidental contacts with live parts
2. **Pendant push button control and remote control** for long travel, cross travel and hoist motions. For switching ON and OFF the motor of a particular motion, the supply voltage to the pendant control shall be 24V AC/DC which shall be obtained through a suitable transformer. Necessary flexible multi core cable with sufficient length shall be supplied to enable the crane to be operated from floor level. Pendant shall be moving type and the movement of pendant will be independent of trolley along girder length.
3. The pendant control shall be capable of withstanding rough handling without being damaged. The cover shall be firmly secured.
4. The mass of the pendant shall be supported independently of the electric cable by means of wire rope/chain. The pendant should be of reputed make and the push buttons should be double step type.

5. Adequate guards shall be provided to prevent accidental contact of pendant ropes or holding wire rope/chain with cross traverse
6. Suitable control circuits, rectifiers, braking controls and acceleration controls shall be provided as per IS 3177.

## **5. Electrical Protective devices**

### **5.1. CONTACTORS**

1. All contactors shall be of AC 4 Class of duty with rating sufficiently higher than the full load current of the respective motors at the specified duty cycle. The directional contactors of all motions shall be suitably interlocked for correct sequence of operation.
2. The contactors shall have high contact reliability and should be accordance with IS 2959
3. All contactors shall be of ABB, Siemens, L&T and Cutler Hammer make

### **5.2. CIRCUIT PROTECTIVE SWITCH GEAR**

1. In the crane push button operated contactor shall be provided for circuit protection.
2. Each control circuit branch to every contactor panel shall be provided with facility for isolation and protection against short circuits and sustained high overloads by means of appropriately rated miniature circuit breaker.

### **5.3. LIMIT SWITCHES & LOCKS**

1. All hoist motions shall be provided with limit switches to prevent crane from over hoisting and over lowering. Two limit switches shall be provided for proper back up protection. The first limit switch shall act in the event of over hoisting and over lowering shall be of snap action/pin type self resetting feature and incorporated in the control circuit of respective drive motor.
2. Any other limit switches viz. for slewing, skewing of crane etc. shall be provided if required.
3. Limit switch for hoist cross and long travel motion shall be supplied installed and wired by the manufacturer.
4. Audio & Visual Alarm for all the limit switches should be provided.
5. Safety latch and swiveling lock should be provided for hook.

### **5.4 EMERGENCY STOP PUSH BUTTONS**

Safety switches of sustained contact type shall be provided at each end of Crane Bridge so that under any emergency conditions, by operating anyone of the switches, the incoming circuit breaker is tripped thus cutting power to all motions. One no. of emergency stop push button should also be provided on pendant.

### **6. CONTROL PANEL (IP 55 class protection)**

1. All power and aux. contactors shall be mounted in sheet steel cubical with lockable hinged doors. The door hinges shall be of such type that during the repair works inside the panel the entire door can be lifted out and placed away enabling better access inside the panel. Each motion shall have its individual Panel. However, common panel with

separate compartment for each motion shall be acceptable. **Interiors of panel shall be dust and vermin proof.**

2. Panels shall be front wired with readily accessible terminal blocks for making connections in the external equipment. Panels shall be pre wired into terminal strip. **Single core, copper conductor shall be used for control circuit wiring in the panel.**
3. All contactors etc. shall be mounted securely in a vertical arrangement with the consideration of the vibrations encountered in the operation of cranes. The bottom most row of the equipment mounted inside the panel except terminals strips shall be at least 150 mm above the panel bottom cover to facilitate inspection and repairs.
4. All the equipment's shall be so mounted in panel as to enable its easy removal/replacement from the front.
5. The terminal strips shall be fixed inside the panel preferably in a horizontal manner leaving enough space underneath the strip for termination of cables in a convenient manner. Power and control terminals shall be segregated. Power terminals blocks shall be separated from each other by means of replaceable insulated spacers. Terminal block shall have adequate clearance to avoid tracking. A minimum of 20% spare terminals block shall be provided in terminals strips.
6. All equipment's inside the panel shall have permanent identification labels in accordance with circuit diagram as also the power and control terminals. Terminal blocks shall be of robust and of such construction as to preclude possibility of cable connections getting loose during vibration on crane.
7. Sheet steel used for fabrication of panels shall have a minimum thickness of 2.0 mm. Panels shall be mounted such that bottom of panel is at least 150mm above the floor.
8. Contactor panels shall be well braced to the crane structure and each panel shall be provided with adequate number of lifting lugs.

## **7. CABLING**

1. The cabling used for wiring shall comply with relevant Indian standard specification. All wiring for power control circuit shall be carried out with **PVC insulated copper cables** as per IS 694 and IS 1554.
2. Minimum size of power & control cables shall be 4 mm<sup>2</sup>, 2 & 2.5 mm<sup>2</sup> respectively.
3. All cables shall be systematically laid on G.I. trays or in cable drags of suitable type.
4. All cables shall be of reputed make and approved ISI brands.

## **8. IDENTIFICATION OF CIRCUITS**

All switches, fuses, contactors, relays, controllers, resistors etc, shall be adequately labeled or marked to facilitate identification of circuits and replacement. All panels, controllers etc. shall be properly marked for each motion. All power control cable and other cables shall be ferruled at both ends as per cables numbers indicated in the supplier's drawing for quick identification. All equipment terminals shall also to be numbered and tagged.

## **9. LIGHTENING REQUIREMENTS**

Necessary lightning arrangement and approached shall be provided for maintenance and inspection of crane

## **10. EARTHING**

The crane structure, motor frames and metal cases of all electrical equipment's including metal conduit or cable guards shall be effectively connect to earth as per Indian Electricity rules.(IS 3043). Earthing to the crane shall be effected through track rails crane structure. As such, all the electrical equipment's mounted on crane shall be connected to the crane structure by means of earthing links.

## C. Documents, Certificate and drawing

Following drawings, test certificate and manuals shall be provided to purchaser at time of delivery

### **1. Drawings and Reports of Components**

- a. Drawing of crane
- b. Drawing of carriage
- c. Drawing of individual mechanism
- d. Drawing of bridge, end girder and their connection
- e. Subassembly drawing for Hoist Drum, Wheels, Hooks, Gears box etc
- f. Design calculation for crane, girder and their connection
- g. Design calculation for selection of motor, reducer, brake, coupling etc
- h. General arrangement drawings which consist of all leading dimension and details important for installation
- i. Circuit diagram and wiring diagram
- j. Operating and maintenance manual
- k. Recommended spare part list
- l. External termination drawing and cable schedules
- m. Test certificate for applicable components
- n. Details of all bought such as motors, brakes, gear boxes, brakes with their makes and manufacturer
- o. GA drawings for all electrical lines
- p. Details of wire, ropes used, their make and manufacturer
- q. QAP (Quality Assurance Plan)

### **2. Test report and Test Certificate**

- a. NDT testing certificate for weld joints with Digital radiography method as per ASTM standard
- b. Liquid penetrate testing of weld joints
- a) Test certificates for electric motors
- b) Test certificates for Brakes
- c) Test certificates for Limit switches
- d) Test certificates for wire ropes
- e) Test certificates for Hook
- a) Test certificates for control panels.
- b) Chemical analysis of raw-materials
- c) Mechanical properties
- d) Hardness tests

### **3. Manuals and related documents**

Following documents and its associated manual will be supplied with final consignment

- Purchase order number.
- Contractors equipment serial number
- General information regarding equipment
- Principal technical data with design, calculation
- Description of components with part lists.
- Assembly drawing
- Erection drawing and instructions.
- Recommendations for lubrications and lubricants.
- Schedule of inspections and checking
- Maintenance and repair instructions



- L.T. machinery sub-assembly (L.T. mechanism)
- C.T. Mechanism
- Hoist Mechanism
- Crab sub-assembly
- Hook block assembly
- Bogie assembly
- Trolley current collection system
- Rope receiving diagram
- Wheel assembly drawing (LT & CT)
- Anchoring arrangement
- Sectional details of gear boxes
- Cable layout
- Motor HP calculations and brake calculations
- Design and wheel load calculations
- Any other related drawings as per future requirement.

## **Annexure-2. Inspection, Commissioning, Testing and General Requirements**

### **1. Inspection requirements**

1. All the mechanical and electrical equipment will be tested as per relevant Indian standard at premises of supplier/crane manufacturer as well as on purchaser site.
2. The crane shall be inspected and tested during different stages of its manufacture, starting from raw-materials till the completion of the crane, by the Purchaser or his authorized representative at the supplier's or his sub-supplier's works. However, the purchaser or his authorized representative is free to enquire any further checks also, if he so desires.
3. The crane will be tested for no load, full load and 25% overload for hoisting at supplier/crane manufacturer premises before erection at purchaser premise. Same will be again repeated on purchaser premises.
4. Satisfactory operation of each control switch, contractor, limit switches and other control and protective device
5. Satisfactory operation of all motors, brakes, resistors et
6. Dimensional inspection as per IS: 3177& IS: 807.
7. The supplier shall carry out the start up and trial operation tests (commissioning test) on receipt of authorization from the Purchaser. In addition to tests indicated in IS: 3177(latest), the following shall also be shown. The earthing of the crane and control equipment, to be tested as per Indian Electricity Rules.
8. It will be tested for satisfactory function of various components such as control switches, contactors, relays etc. All emergency systems as well as breaking system will be tested.
9. All the parameters for testing components of crane shall be accordance with IS 3077
10. Insulation test shall be done after erection at Purchaser premises with required instruments (arranged by supplier) and any defect occurred should be rectified and corrected.
11. There should no skewness in crane during long travel and cross travel motions, presence of vibrations and unusual noise in operation
12. Vertical deflection of bridge should be proved as per IS 3077

### **2. Erection and Commissioning requirements**

1. The supplier shall arrange erection and commissioning of the cranes. Adequate number of teams of technical experts will be made available so that erection and commissioning delays are eliminated.
2. The contractor or his agent shall commission the crane within 60 days from the date of intimation by the consignee in respect of readiness of site/gantry etc.
3. Following items of work shall be performed by the Contractor
  - a. Checking of alignment of gantry rail at site. Any rectification required, however, will be done by the purchaser. Installing of the crane structure and associated machinery in position.
  - b. Complete fitting and wiring of all electrical items
  - c. Fixing of down shop leads.
  - d. Commissioning of the equipment. The crane performance shall be demonstrated after successful commissioning.
4. The loading and transportation of crane and its associated components from supplier / Manufacturer premise to purchaser will be in supplier scope. Arrangement of necessary

equipment's for erection, commissioning and installation of EOT crane at purchaser premises shall be supplier responsibility.

5. In the interest of early commissioning, the supplier shall ensure minimum amount of assembly is necessary at site. **The supplier, before proceeding with design details, shall check the span of gantry rails from us.**
6. During the trial operation, all necessary adjustments shall be made so as to ensure compliance with the operating characteristics for the complete equipment as stipulated in the technical specifications.

### **3. Acceptance Criteria**

1. The components will accepted only when it is fulfilled all technical requirement as well as inspection and testing requirements as per applicable IS standard
2. The EOT crane will be accepted after its successful operational requirement at purchaser premises.

### **4. Spares**

**To be quoted separately for two years of maintenance**

### **5. Training**

Technical training for employs for operation and maintenance of should be arranges at Purchaser /supplier premises. Training should consists of for experts of the manufacturer during erection & commissioning of cranes will fully and adequately train operators / maintenance staff nominated by the consignees.

### **6. Guarantee**

The supplier shall guarantee for free replacement, repair, and of parts found faulty or defective material, bad workmanship and efficient performance of crane for designed loading. One year period (excluding shutdown period due to faults) from the date of acceptance after successful installation and commissioning .The supplier shall have to provide service for faults and replace damage material free of cost during guarantee period.

### **7. Documents to be attached with Quotation**

1. Outline drawings indicating required clearances, end approaches, horsepower and full load current rating of all motors and wheel loading
2. Manufacturers name and catalog number of any equipment number to be furnished
3. Name and addresses of manufactures representative nearest plant site maintaining 24 hour service facilities and complete stock of spare parts
4. Detail quality assurance programme indicating QAP applicable at various stages of crane fabrication starting from raw material to final crane testing.

**Note: A detailed QAP, drawings documentation and calculation for obtaining necessary approval should be submitted to purchaser before taking up crane fabrication.**

## 8. Applicable Standards and Codes:

1. IS:210:1978 - Grey Iron Castings
2. IS:325:1978 - 3 Phase Induction Motors
3. IS:807:1976 - Code of Practice for Design, manufacture, erection  
i. and testing (structural portion) of Crane and Hoist.
4. IS:816:1969 - Code of Practice for use of metal arc welding for  
i. general construction in mild steel.
5. IS:823:1963 - Code of practice for manual metal arc welding of mild steel
6. IS:900:1965 - Code of practice of installation and maintenance of  
i. induction motors.
7. IS:1030:1971 - Carbon steel castings for general engineering purposes.
8. IS:1964:1967 - Precision and semi-precision hexagonal bolts, screws,  
i. bolts, screws, nuts and lock nuts
9. IS:477:1971 - Code of practice for painting of ferrous metals in building  
a. Part I & II allied finishes.
10. IS:1852:1973 - Rolling and cutting tolerances for hot rolled steel products
11. IS:2062:1969 - Structural steel (fusion welding quality)
12. IS:2147:1962 - Degree of production provided by enclosures for low  
i. voltage switchgear and control gear.
13. IS:2208:1962 - HRC Cartridge fuse-link up to 650 V.
14. IS:2266:1977 - Steel Wire Ropes for general engineering purpose.
15. IS:2269:1967 - Hexagon socket head screw.
16. IS:2607:1967 - Air brake isolators for voltage not exceeding 1000 V.
17. IS:2707:1933 - Carbon steel castings for surface hardening.
18. IS:2821:1964 - Thermo Sampler
19. IS:2959:1975 - A.C. Contactors of voltage not exceeding 1000 V.
20. IS:3043:1966 - Code of practice for earthing.
21. IS:3177:1977 - Code of practice for design of over head traveling cranes  
i. and cranes other than steel works
22. IS:3815:1969 - Point hooks with shanks for general engineering purpose.
23. IS:3938-1983 - Specification for Electric Wire Rope Hoists
24. IS:4029:1967 - Guide for testing 3 phase induction motors.
25. PP-P-93 - Magnetic practical inspection of metallic surface.
26. PP-P-97 - Radiographic inspection of metallic surfaces.
27. IS:P-101 - Liquid penetrate inspection of metallic surfaces
28. ASME Boiler and pressure vessel code section IX. – Welding and bracing qualification.
29. IS:4137 - Code practice for HD electric overhead traveling cranes  
i. including special service machines for use in steel works.
30. ASTM code wherever specified.

**Information needs to be supplied by Bidder**

The following information should be furnished by the bidder with their tender.

**1. Type and Class of Crane**

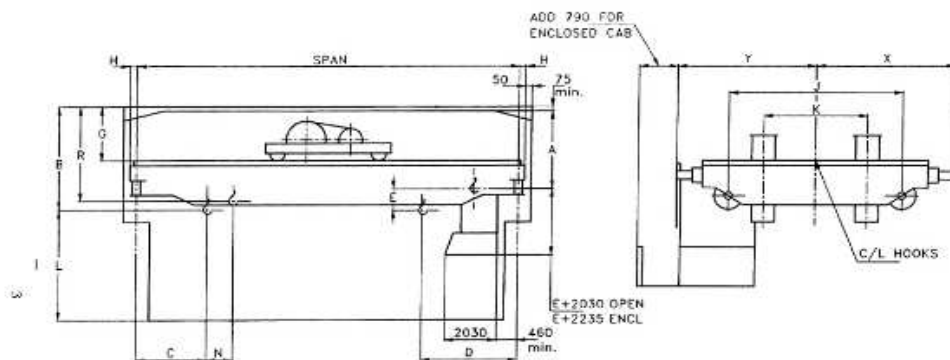
a	Crane Structure		
b	Maximum Capacity of main hoist along with safe working load		
c	Maximum Capacity of auxiliary hoist along with safe working load		
d	Cross Traverse		
e	Long Traverse		
f	Span (Centre to centre of rails)		

**2. Speed of Operation**

		Full Speed	Creep Speed
a	Main Hoist		
b	Auxiliary Hoist		
c	Cross Traverse		
d	Long Travel		

**3. Minimum working clearances required as per fig in IS 3177**

a	Distance from centre of gantry rail to nearest side obstruction		m
b	Vertical distance from top of gantry rail to nearest side obstruction		m
c	Distance from floor to top of gantry rail		
d	Position of hook from centre line of gantry rails for both main hoist and auxiliary hoist		
e	Vertical clearances underside of bridge		m



RATED LOAD	SPAN	A	B	C	D	E	G	H	I	K	L	X	Y

2A E. O. T. Clearance Diagram  
 FIG. 2 DIMENSIONS FOR E. O. T. CLEARANCE AND GANTRY CRANE CLEARANCE DIAGRAM (Continued)

IS 3177 : 1999

4. Type of Hook supplied

a	Main hook		
b	Auxiliary hook		

5. Position of Hooks

a	Distance of main hook from floor		m
b	Distance of auxiliary hook from floor		m

6. Rope Drum Details

a	Material		
b	Diameter		
c	Length		
d	Flange/Flangeless		

7. Rope Details

a	Rope construction		
b	Tensile strength		
c	Diameter of rope		
d	Length of rope		
e	No. of falls		
f	Minimum braking load		
g	safety factor		

8. Sheaves Details

		Main Hoist	Auxiliary Hoist
a	Material		
b	Diameter of sheaves (Main as well as Equalizers)		
c	Type of Guards provided		

9. Coupling details for

a	Between Motor and Gear box		
b	Between Gear Box and Rope Drum		
c	Between Gear Box and Wheels		

		Main Hoist	Auxiliary Hoist
a	Type of Coupling		
b	Torque rating		
c	Size		

10. Gear Box Details

		Main Hoist	Auxiliary Hoist	Cross Travel	Long travel
a	Type of mounting				
b	Classification				
c	Total no. of reduction				
d	Reduction ration				
e	Hardness				
f	Type of bearing				

**11. Type of Drive arrangement**

Main Hoist	Auxiliary Hoist	Cross Travel	Long travel

**12. Wheel details**

		Cross Travel	Long travel
a	Material		
b	Hardness		
c	Process of Hardening		

**13. Brakes**

		Main Hoist	Auxiliary Hoist	Cross Travel	Long travel
a	Diameter of brake				
b	Torque rating				
c	Type of break				

**14. Type of bridge Girder provided**

a	Size		
b	Type of connection to end carriages		
c	Width		
d	Length		

**15. Type of Platform provided**

a	Number		
b	Length		
c	Width		
d	Position of access point		

**16. Power supply at crane L.T. collectors**

a	ac or dc voltage		
b	No. of phase		
c	No. of conductors		
d	Type of earthing provided		
e	Length and size of conductors		

**17. Controls provided**

a	Type of pendant control		
b	Type remote control		
c	Limited range required		
d	Warning devices provided		

**18. Motor details**

		Main Hoist	Auxiliary Hoist	Cross Travel	Long travel
a	Man. of motor				
b	Class of insulation				
c	Duty Class				
d	Frame size				
e	Speed				
f	kW rating				

**19. Details of Protection/safety devices**

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**20. Weight details of various components**

a	Total weight of crane		
b	Weight of girder		
c	Weight of end carriage		
d	Weight of trolley		

**21. Tools and accessories supplied**

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**22. Life of crane in working hours and its design basis**

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**Bidder has to attach the Compliance sheet duly filled-in and signed by them.**

**COMPLIANCE SHEET**

<b>Sr. No.</b>	<b>Description</b>	<b>IPR Specification</b>	<b>Vendor specification</b>
1.	Type of Crane a) Double Girder b) Top Running EOT c) Girder Construction	a) Double Girder b) Top Running EOT c) Box Girder of steel as per IS 2062	
2.	Capacity of Hoist, in ton a) Main Hoist b) Auxiliarry Hoist	a) 20T b) 5T	
3.	Span, in Meter	20m ± 2m	
4.	Height of Lift, in meter above floor/ground level a) Main Hoist b) Auxiliarry Hoist	a) 16m b) 16m	
5.	Long Travel Length/Bay length, in meter	100m ± 5m	
6.	Speed, in meter/minutes a) Main Host b) Auxiliary hoist c) Cross Travel d) Long Travel	a) 3m/min b) 16m/min c) 16m/min d) 20m/min	

<b>Sr. No.</b>	<b>Description</b>	<b>IPR Specification</b>	<b>Vendor specification</b>
7.	Creep speed through VVF drives	Pre-settable. Minimum 10% to 100% in steps of 10% of full speeds by VVVF	
8.	Duty class	As per IS:807-2006 M5	
9.	Indoor/Outdoor	Indoor	
10.	Ambient Temperature, in Celcius a) Maximum b) Minimum	a) 50 Deg	
11.	Mode of Operation a) Push Button b) Radio Remore control (Push button type)	a) Push button trailing type  b) Push button	
12.	Power Feeding at Centre/ One end/Two end	One End	
13.	Type of Hook	Plain shank with swivelling	
14.	Details asked in tender documents titled as "Information need to be supplied by Supplier/Manufacturer from point No.1 to 22"		

**Place:**

**Date:**

**Signature of Bidder with official seal**

**Note to the Vendor:**

1. The following Drawings are provided for the PEB building where Crane would be installed. The said PEB building is under construction now. As per the schedule given by the building contractor the roofing would be completed by 31<sup>st</sup> October 2017. Hence the EOT Crane Vendor can be provided access in the month of November for the installation of the EOT Crane.

Drawing No.	Drawing Title	Revision
A.1.101	Ground floor Plan Lab building	R0
A.1.106	Second Floor Upper level Plan- Lab Building	R0
A.1.204	Section- Lab Building	R0
SS.1.16	Layout of Gantry	R0

2. The scope of work of EOT vendor would start after the girder Level (Please refer drawing no. SS.1.16). Power supply would be provided at one Point. The EOT vendor needs to provide us the details of specific Power requirement.

**(1) INSTRUCTIONS TO BIDDERS AND TERMS AND CONDITIONS**

- 1.1 The quotation and any order resulting from this tender/enquiry shall be governed by our General Conditions of contract and supplier quoting this tender shall be deemed to have read and understood the same in toto.
- 1.2 Where counter terms and conditions have been offered by the supplier, the same shall not be deemed to have been accepted by us, unless our specific written acceptance thereof is obtained.
- 1.3 **Tender Fee:** Tenders received without the prescribed Tender fee will be rejected.
- 1.4 **Eligible Bidders**
- 1.4.1 This Invitation of Bids is open to all suppliers who meet the **Eligibility criteria** mentioned in the tender documents.
- 1.4.2 The Bidder shall bear all costs associated with the preparation and submission of its bid and the Purchaser will no case be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.
- 1.5 **Clarifications:**
- 1.5.1 Any technical and commercial questions, information, clarifications etc. that may be required pertaining to this tender may be obtained from the Purchase officer. Bidder will send the request for such clarifications to the Purchase Officer minimum 10 working days prior to the due date to submit the bid.
- 1.5.2 Bids shall be complete in all respects and shall include properly filled in prices, other specifications, schedules, relevant drawings and catalogues as necessary along with the bid covering letter, all in duplicate.
- 1.6 **Scope of work/Supply and Specifications:**
- 1.6.1 Scope of work/supply, specifications and drawings under this tender notice are given in **Part-A(i)**. Materials should be offered strictly conforming to the specifications within acceptable tolerance level given in specifications / drawings given in tender document. Deviations, if any, should be clearly indicated by the bidder in their bid. The supplier should also indicate the Make/Type number of the materials offered and catalogues, technical literature and samples, wherever necessary should accompany the quotation.
- 1.6.2 Any fittings or accessories which may not be specifically mentioned in the Specifications or Particulars but which are usual or necessary for proper and efficient functioning of the Stores as per the specifications of the tender shall be supplied by the Contractor without extra charge to the Purchaser; the Stores supplied shall be complete in all respects.

1.7 **Alteration of specifications, Patterns and Drawings:**

1.7.1 The Purchaser reserves the right to alter, whenever necessary, specifications, patterns and drawings. As from the date, the Stores shall be in accordance with the specifications, patterns and drawings so altered, which the contractor is bound to comply with.

1.7.2 In the event of such alteration involving a revision in the cost, or in the delivery period, the same shall be discussed and mutually agreed to, taking into account the unit rates of similar items in the Contract. In case of disagreement, the decision of the Purchaser, in the cost or the delivery period, shall be final and conclusive.

1.8 **Minor modifications / Additional Scope of Work:** Minor modifications / additional scope of work to the tune of 2% of the total contract value will be carried out by the contractor without any extra cost to IPR.

1.9 **Subletting or Assignment of Contract:**

1.9.1 The Contractor shall not sublet, transfer or assign the Contract or any part thereof or bills or any other benefits, accruing therefrom or under the contract without the prior written consent of the Purchaser (All Sub-contractors are required to be appraised and approved by the Purchaser before placement of orders by the Contractor/Supplier). However, such consent shall not be unreasonably withheld by the Purchaser, if such stores are not normally manufactured by the Contractor, such assignment or subletting shall not relive the Contractor from any contractual obligation or responsibility under the Contract.

1.9.2 Any breach of this condition shall entitle the Purchaser to cancel the Contract or any part thereof and to purchase from other sources at the risk and cost of the Contractor and shall recover from the Contractor damages arising from such cancellations.

1.9.3 In case the Contractor sublets, transfers or assigns any part of the Contract with the prior written consent of the Purchaser, all payments to the Sub-Contractor shall be the responsibility of the Contractor and any requests from such sub-Contractor shall not be entertained by the Purchaser.

1.10 **Conditional Discount:** In case the tenderer offers any conditional discount with regard to acceptance of their offer within a specific payment terms, delivery, quantity etc. the purchaser will not take into consideration such conditional discount while evaluating their offer.

1.11 **Past performance:** In case the past performance of the tenderer is not found to be satisfactory with regard to quality, delivery, warranty obligation and non-fulfillment of terms and conditions of the contract, their offer is liable to be rejected by the purchaser.

1.12 **Compliance with the Security Requirements of the Purchaser:** The Contractor shall strictly comply with the Security Rules and Regulations of the Purchaser in force and shall complete the required formalities including verification from Police and any other authority and obtain necessary prior permission for entry into the Purchasers premises, wherever authorized by the Purchaser.

1.13 **Manner & method for submission of tenders**

1.13.1 **Language of Bid:** The bid prepared by the Bidder, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Purchaser, shall be written in English language only especially when the details are technical.

1.14 **Submission of tenders:**

1.14.1 All tenders in response to this invitation shall be submitted in TWO PARTS as under and in the different envelopes.

1.14.2 **Part-A (Techno-commercial):** This part of the tender shall include/contain all technical details, technical specifications, drawings and also the commercial terms and conditions of contract for the supplies to be made and the services to be rendered **EXCLUDING ANY PRICE DETAILS THEREOF.**

**Part-A (Techno-commercial)** should contain/include only technical specifications, technical details, literature, reference to earlier supplies of similar equipment, drawings, quantity, time required for submission and approval of drawings, manufacturing and delivery schedule, inspection/testing procedure, itemized list of spares and quantity (without price) recommended by the tenderer for purchase, term of price, mode and terms of payment, mode of dispatch, the quantum/percentage of statutory levies payable by the purchaser as extra and all related commercial terms and conditions for the supplies and for the services like erection and commissioning to be rendered by the tenderers. This part of the tender, i.e. Part-A (Techno-commercial without price) shall be enclosed separately in an envelope duly sealed and super scribed with the purchaser's tender number and the last date and time specified for receipt and opening indicated in the instruction sheet of this tender document. The tenderer shall take special care NOT TO MIX UP the price of the stores in this part of the tender.

1.14.3 **Part-B (Price):** This part should contain only the prices of the stores offered for the services to be rendered.

**Part-B (Price)** shall include/contain only price, price break-up, freight/safe delivery charges, charges for training of the Purchaser's engineers wherever applicable, lumpsum charges for erection and commissioning work or per diem charges for the supervision of erection and commissioning work as is envisaged in the Purchaser's tender document, testing charges, third party inspection charges, etc. This part of the tender, i.e. Part-B (Price) shall be enclosed separately in an envelope duly sealed and superscribed with the Purchaser's tender number and the last date and time specified for receipt and opening of the tenders as in the tender document.

1.14.4 If tenderer includes prices of any nature in Part-A (Techno-commercial) of the tender such offers are liable for rejection without any notice to the tenderers.

1.14.5 **Deadline for submission of Bids:**

1.14.5.1 Bids must be received by the Purchaser at the address specified in Invitation for bids not later than the time and date specified therein. In the event of the specified date for the submission of Bids being declared a holiday for the Purchaser, the Bids will be received up to the appointed time on the next working day. Any delay / loss in transit for submitting the hard copy of the bid will not be entertained.

1.14.5.2 The Purchaser may, at its discretion, extend the deadline for submission of bids by issuing a **Corrigendum** in which case all rights and obligations of the Purchaser and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

1.14.6 **Late Bids:**

1.14.6.1 Any bid received by the Purchaser after the deadline for submission of bids prescribed by the Purchaser will be rejected.

1.14.6.2 Such tenders shall be marked as late and not be considered.

1.15 **Confidentiality:**

1.15.1 Information relating to the examination, evaluation, comparison, and post qualification of bids, and recommendation of contract award, shall not be disclosed to bidders or any other persons not officially concerned with such process until the Purchase Order is released.

1.15.2 Any effort by a Bidder to influence the Purchaser in the examination, evaluation, comparison and post qualification of the bids or contract award decisions may result in the rejection of its Bid.

1.16 **Bid Prices:**

1.16.1 The Bidder shall indicate on the appropriate price schedule form, the Unit prices and total bid prices of the goods it proposes to supply under the contract. Bidders should confirm that the price quoted is the lowest export price applied to scientific and educational institute in India.

1.16.2 Quotation should be submitted on door delivery basis without extra charge wherever possible. For quotations on Ex-Works, Ex-godown basis the approximate packing and forwarding charges should be indicated by the supplier. In the case of local suppliers, the material is to be delivered at our stores free of charge. Unit rate/s should be valid throughout the validity of purchase order/contract period for addition/deletion purposes. Break-up of price should be furnished. The quoted price should not be subject to price escalation for whatsoever reasons. The quoted price shall be firm, fixed and non-revisable during the validity/extended validity of purchase order/contract.

1.16.3 The prices quoted must be FIRM and preference will be given to such tenders. In exceptional cases (e.g. items involving substantial use of raw materials susceptible to sharp fluctuations in prices) if prices quoted subject to variation it shall be on the basis of a standard 'Price Variation Formula'. The basis for calculation shall be very clearly stated. Here again preference will be given to the tenders with a specific ceiling on escalation. Price escalations occurring during the extended delivery

period are not allowed. However, PVC is considered only if the delivery period is more than 18 months.

- 1.16.4 Prices are required to be quoted according to the units indicated in the tender form. When quotations are given in terms of units other than those specified in the tender form, relationship between the two sets of units must be furnished.
- 1.16.5 Wherever options are specified in the tender documents, IPR reserves the right to accept any option/s irrespective of whether all the vendors have quoted for all the options or not. The decision of IPR in this regard will be final.
- 1.16.6 The purchaser reserves the right to accept tenders for any quantity of his choice and the tenderer shall be bound to accept a contract for any quantity. The Purchaser also reserves the right to accept or reject lowest or any tender in full or in part without assigning any reasons. If tenderer wishes, they can offer price for different quantity slabs.
- 1.17 **TDS/Work Contract Tax/or any other leviable taxes or duties:** If applicable, the same shall be recovered from the contractors bill and necessary certificate will be issued to the contractor.
- 1.18 Tender should be free from Correction and Erasures. Corrections, if any, must be attested. All amounts shall be indicated both in words as well as in figures. Where there is difference between amounts quoted in words and figures, amount quoted in words shall prevail.
- 1.19 IPR shall be under no obligation to accept the lowest or any tender and reserves the right of acceptance of the whole or any part of the tender or portion of the quantity offered and the tenderers shall supply the same at the rates quoted.
- 1.20 **Sales tax/VAT:** IPR does not issue "C" or "D" form. The percentage of Sales Tax/VAT, surcharge, if applicable and other levies legally leviable and intended to be claimed should be clearly indicated in the tender. Where this is not done, no claim on these accounts would be admissible later.
- 1.20.1 **VAT Registration:** Bidder may submit a copy of VAT Registration certificate along with their quotation (if applicable).
- 1.21 **Service Tax:** Wherever Service tax is applicable, it should be mentioned clearly. You may indicate percentage of Service Tax in your quotation.
- 1.22 **Excise Duty:** IPR is exempted from payment of Excise Duty under Government of India Notification No.10/97-CE (Central Excise) dated 1-3-1997. Excise Duty Exemption Certificate, wherever applicable, and as per rules will be issued at the appropriate time. Hence Excise Duty should not be included in the BID. However, prevailing percentage of Excise Duty may be indicated.
- 1.23 **Customs Duty:** IPR is exempted from payment of Customs Duty as per notification No.51/96 Customs. However from 1st March 2002 the



Government of India has imposed an advalorem Customs Duty up to 5% vide Notification 24/2002 Customs on all imports covered under Notification No.51/96 as amended by notification no. 24/2007 Customs dtd. 1-3.2007. Accordingly Certificate will be issued from IPR. Bidders are requested to take into account this at the time of submitting the bids.

1.24 **Packing, forwarding and insurance:** The contractor will be held responsible for the stores being sufficiently and properly packed for transport by rail, road, sea or air, to withstand transit hazards and ensure safe arrival at the destination. The packing and marking of the packages shall be done by and at the expense of the contractor. The purchaser will not pay separately for transit insurance, all risks in transit being exclusively of the contractor and the purchaser shall pay only for such as are actually received in good conditions, in accordance with the contract.

1.25 **Octroi:** Octroi is not applicable in our case.

1.26 **Delivery, installation and commissioning:**

1.26.1 **Delivery:** The delivery of material should be made **within** \_\_\_\_\_ from the date of approval of drawings.

1.26.2 **Installation & Commissioning:** Installation and commissioning should be completed within **sixty (60) days** from the date of intimation by IPR in respect of readiness of site/gantry etc.

The time for and the date of delivery stipulated in the Purchase Order/Contract shall be deemed to be the essence of the contract. Delivery must be completed within the dates specified in Delivery Schedule.

1.27 **Despatches:** The contractor is responsible for obtaining a clear receipt from the Transport Authorities specifying the goods dispatched. The consignment should be dispatched with clear Lorry Receipt. If sent in any other mode, it is at the risk of the contractor. Purchaser will take no responsibility for short deliveries or wrong supply of goods when the same are booked on 'said to contain' basis Purchaser shall pay for only such stores as are actually received by them in accordance with the contract.

1.28 **Acceptance of Stores:**

(a) The contractor shall tender the stores for inspection at such places as may be specified by the purchaser at the contractor's own risk, expenses and cost.

(b) It is expressly agreed that the acceptance of the stores contracted for is subject to final approval by the Purchaser, whose decision shall be final.

1.29 **Inspection:** Materials on its arrival at IPR will be inspected by Stores Officer, and his decision in the matter will be final.

- 1.30        **Earnest Money Deposit (EMD):**
- 1.30.1      The e Bidder shall submit, as part of its bid, interest free Earnest Money Deposit (EMD) for an amount as specified in the Invitation for Bids. EMD shall be submitted by way of Demand Draft from **any scheduled bank** issued in favour of "**Institute for Plasma Research**" and payable at **Ahmedabad. Tender received without EMD will be rejected. (For this tender, the EMD amount is Rs.60,000/-).**
- 1.30.2      The EMD of unsuccessful Bidder will be discharged/returned after finalizing award of the Contract/placement of Purchase order.
- 1.30.3      The successful Bidder's EMD shall be discharged upon the Bidder submitting the Security Deposit as specified in the contract/purchase order, without any interest.
- 1.30.4      **Exemption from payment of EMD:** The firms registered with DGS&D, NSIC and registered MSME's are exempted from payment of EMD subject to submission of valid registration certificate. In the case of foreign bidders, payment of EMD is exempted if they submit their bid directly or through their Indian agent in **foreign currency** against the tender document bought by them, so that the order can be placed directly on their Principals.
- 1.31        **The EMD may be forfeited:**
- 1.31.1      If a Bidder withdraws or amends or modifies or impairs or derogates its bid during the period of bid validity specified by the Bidder on the Bid Form; or
- 1.31.2      In case of a successful Bidder, if the Bidder fails to furnish order acceptance within 15 days of the order or fails to submit the Security Deposit within 21 days from the date of contract/order.
- 1.32        **Period of validity of Bids:**
- 1.32.1      Bids shall remain valid for minimum of 120 days after the date of bid opening prescribed by the Purchaser.
- 1.32.2      In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. A Bidder granting the request for extension will not be required nor permitted to modify its bid.
- 1.33        **Clarification of Bids:**  
To assist in the examination, evaluation, comparison and post qualification of the bids, the Purchaser may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing. However, no negotiation shall be held except with the lowest bidder, at the discretion of the purchaser. Any clarification submitted by a bidder in respect to its bid which is not in response to a request by the purchaser shall not be considered.

- 1.34 **Preliminary Examination:**
- 1.34.1 The Purchaser shall examine the bids to confirm that all documents and technical documentation requested in the tender specification/documents have been provided, and to determine the completeness of each document submitted.
- 1.34.2 The Purchaser shall confirm that the following documents and information have been provided in the Bid. If any of these documents or information is missing, the offer shall be rejected.
- 1.34.3 Tenders submitted in accordance with the tender specification/documents.
- 1.34.4 All the tenders received will first be scrutinized to see whether the tenders meet the basic requirements as incorporated in the tender enquiry document. The tenders, who do not meet the basic requirements, are to be treated as unresponsive and ignored. The following are some of the important points, for which a tender may be declared as unresponsive and to be ignored, during the initial scrutiny:
- (i) The Bid is unsigned.
  - (ii) The Bidder is not eligible.
  - (iii) The Bidder has quoted for goods manufactured by a different firm without the required authority letter from the proposed manufacturer.
  - (iv) Bidder has not agreed to give the required Security Deposit
  - (v) The goods quoted are sub-standard, not meeting the required specification, etc.
  - (vi) Against the schedule of Requirement (incorporated in the tender enquiry), the tenderer has not quoted for the entire requirement as specified in that schedule.
  - (vii) The tenderer has not agreed to any essential condition(s) incorporated in the tender enquiry.
- 1.35 **Responsiveness of Bids:**
- 1.35.1 Prior to the detailed evaluation, the purchaser will determine the substantial responsiveness of each bid to the bidding documents. For purposes of this clause, a substantive responsive bid is one, which conforms to all terms and condition of the bidding documents without material deviations, reservations or omissions. A material deviation, reservation or omission is one that:
- (a) affects in any substantial way the scope, quality, or performance of the Goods and Related Services specified in the Contract; or
  - (b) limits in any substantial way, inconsistent with the Bidding Documents, the Purchasers rights or the Bidders obligations under the Contract; or
  - (c) if rectified, would unfairly affect the competitive position of other bidders presenting substantially responsive bids.
- 1.35.2 The purchases determination of bids responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.

1.35.3 If a bid is not substantially responsive, it will be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the material deviation, reservation or omission.

1.36 **Non-Conformity, Error and Omission:**

1.36.1 Provided that a Bid is substantially responsive, the Purchaser may waive any nonconformities or omissions in the Bid that do not constitute a material deviation.

1.36.2 Provided that a bid is substantially responsive, the Purchaser may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the bid related to documentation requirements. Such omission shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.

1.36.3 Provided that the Bid is substantially responsive, the Purchaser shall correct arithmetical errors on the following basis:

- (a) if there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of the Purchaser there is an obvious misplacement of the decimal point in the unit price, in which case the line item total as quoted shall govern and the unit price shall be corrected;
- (b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
- (c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.

1.36.4 Provided that a bid is substantially responsive, the purchaser may request that a bidder may confirm the correctness of arithmetic errors as done by the purchaser within a target date. In case, no reply is received then the bid submitted shall be ignored and its EMD may be forfeited.

1.37 **Examination of Terms & Conditions, Technical Evaluation:**

1.37.1 The Purchaser shall examine the Bid to confirm that all terms and conditions specified in the tender documents have been accepted by the Bidder without any material deviation or reservation.

1.37.2 The Purchaser shall evaluate the technical aspects of the Bid submitted in accordance with the technical specifications mentioned in the tender documents, to confirm that all requirements specified in Schedule of Requirements of the Bidding Documents have been met without any material deviation or reservation.

1.37.3 If, after the examination of the terms and conditions and the technical evaluation, the Purchaser determines that the Bid is not substantially responsive in accordance with the tender specification, it shall reject the Bid.

1.38 **Conversion to Single Currency:**

To facilitate evaluation and comparison, the Purchaser may convert all bid prices expressed in the amounts in various currencies in which the bid prices are payable to Indian Rupees.

1.39 **Evaluation and comparison of Bids:**

1.39.1 The Purchaser shall evaluate each bid that has been determined, up to this stage of the evaluation, to be substantially responsive.

1.39.2 The bids shall be evaluated on the basis of final landing cost which shall be arrived as under:

- (a) The price of the goods quoted ex-works including all taxes already paid.
- (b) VAT and other taxes like excise duty etc. which will be payable on the goods if the contract is awarded.
- (c) Charges like packing, forwarding, insurance and transportation/freight required for delivering the goods at the desired destination.

**Note:** Where there is no mention of packing, forwarding, freight, insurance, taxes etc. such offers shall be treated as incomplete.

1.39.4 The Purchaser shall compare all substantially responsive bids to determine the lowest valued bid, in accordance with the tender specifications.

1.40 **Contacting Purchaser**

1.40.1 Subject to clause No.1.33 hereinabove, no Bidder shall contact the Purchaser on any matter relating to its bid, from the time of the bid opening to the time the Contract is awarded.

1.40.2 Any effort by a Bidder to influence the Purchaser in its decisions on bid evaluation, bid comparison or contract award may result in rejection of the Bidder's bid.

1.41 **Award of Contract:**

1.41.1 **Negotiations:** There shall not be any negotiation normally. Negotiations, if at all, shall be an exception with the lowest evaluated responsive bidder.

**1.41.2 Award Criteria:** Subject to the conditions mentioned under clause No.1.41.3, the Purchaser will award the contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined to be the lowest evaluated bid, provided further that the Bidder is determined to be qualified to perform the contract satisfactorily.

**1.41.3 Purchaser's right to accept Any Bid and to reject any or All Bids:** The Purchaser reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders.

**1.41.4 Purchaser's right to vary Quantities at the time of Award of contract:** The Purchaser reserves the right at the time of Contract award to modify the quantity of goods and services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions, if it is felt absolutely necessary.

**1.41.5 Notification of Award:** The Purchaser will notify the successful bidder in writing by registered letter/speed post or fax or e-mail that the bid has been accepted and a separate purchase order shall follow through post.

**1.41.6** Until a formal contract/purchase order is prepared and executed, the notification of award should constitute a binding contract.

**Security Deposit:**

**1.41.7** Within 21 days of receipt of the notification of award/PO, the Supplier shall furnish Security Deposit for 10% of the contract/order value by way of Bank Guarantee valid till final acceptance of the material.

**1.41.8** In case the tenderer is registered with DGS&D, NSIC or MSME's, they can be considered for exemption from Security Deposit to the extent of the monetary limit of such registration, subject to production of proof of valid registration certificate.

**1.41.9** The Security deposit shall be forfeited in case the selected Bidder does not start the work within the time limit specified or fail to complete the work within the stipulated delivery period or fail to comply with any of the terms and conditions in the purchase order/contract.

**1.41.10** The Security Deposit shall be submitted in Indian Rupees for the offers received for supplies within India and submitted in the currency of the contract in the case of offers received for supply from foreign countries.

**1.41.11** The Security Deposit shall be in one of the following forms:

A Bank guarantee issued by SBI/Nationalized Bank or any one of the scheduled banks mentioned in the bracket (Axis Bank, HDFC Bank, ICICI Bank and IDBI Bank) located in India for the offers received for supplies within India and in the case of imports a first class international reputed bank with preferably its operating branch in India in the form provided in the bidding documents.

- 1.41.12 The Security Deposit will be discharged by the Purchaser and returned to the Supplier not later than 60 days following the date of completion of the Supplier's performance obligations without levy of any interest.
- 1.41.13 Whenever, the bidder submits the Security Deposit in the form of Bank Guarantee, he should advise the banker issuing the Bank Guarantee to immediately send by Registered Post (A.D.)/Speed post/Courier an unstamped duplicate copy of the Guarantee directly to the Purchaser with a covering letter to compare with the original BG for the correctness, genuineness, etc.

**(2) GENERAL CONDITIONS OF CONTRACT**

**2.1 Scope of supply:**

The Goods and related services as specified in the contract/purchase order is/are to be supplied as per the specifications and technical details mentioned in the tender documents.

**2.2 Suppliers Responsibilities:**

The Supplier shall supply all the Goods and Related Services included in the Scope of Supply in accordance with Scope of Supply Clause of the Contract/purchase order, and the Delivery and Completion Schedule, as per Clause relating to delivery and document.

**2.3 Standards:**

The Goods supplied and services rendered under this Contract shall conform to the standards mentioned in the Technical Specifications, and, when no applicable standard is mentioned, to the authoritative standard appropriate to the Goods' country of origin and such standards shall be the latest issued by the concerned institution.

**2.4 Use of Contract Documents and Information**

2.4.1 The Supplier shall not, without the Purchaser's prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample or information furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far, as may be necessary for purposes of such performance.

2.4.2 The Supplier shall not, without the Purchaser's prior written consent, make use of any document for information enumerated above except for purposes of performing the Contract.

2.4.3 Any document, other than the Contract itself, enumerated above shall remain the property of the Purchaser and shall be returned (in all copies) to the Purchaser on completion of the Supplier's performance under the Contract if so required by the Purchaser.

## 2.5 **Patent Indemnity**

2.5.1 The Supplier shall, subject to the Purchasers compliance with Clause 2.5.2 mentioned herein below, indemnify and hold harmless the Purchaser and its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of any nature, including attorneys fees and expenses, which the Purchaser may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright, or other intellectual property right registered or otherwise existing at the date of the Contract by reason of:

- (a) the installation of the Goods by the Supplier or the use of the Goods in India; and
- (b) the sale in any country of the products produced by the Goods.

2.5.2 If any proceedings are brought or any claim is made against the Purchaser, the Purchaser shall promptly give the Supplier a notice thereof and the Supplier may at its own expense and in the Purchasers name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claims.

## 2.6 **Terms of Payment:**

2.6.1 10% of supply portion will be paid as advance against submission of Bank Guarantee for an equivalent amount from SBI/nationalized banks or any one of the scheduled banks mentioned in the bracket (Axis Bank, HDFC Bank, ICICI Bank and IDBI Bank) valid till delivery of the entire material covered in the contract/purchase order. This payment will be made only after signing the contract/Purchase order and submission of Security Deposit.

2.6.2 10% of supply portion will be paid after approval of drawings by IPR and on receipt of Bank Guarantee for an equivalent amount from SBI/nationalized banks or any one of the scheduled banks mentioned in the bracket (Axis Bank, HDFC Bank, ICICI Bank and IDBI Bank) valid till delivery of the entire material covered in the contract/purchase order.

2.6.3 60% of supply portion + 100% of all other charges will be paid on pro-rata basis against delivery of material at IPR site, its verification by IPR representative and on receipt of Proforma Invoice in triplicate.

2.6.4 The final 20% of supply portion and 100% of installation and commissioning charges will be paid within 30 days from the date of



final acceptance of the system at IPR and on receipt of Performance Bank guarantee for 10% of the contract value from SBI/nationalized banks or any one of the scheduled banks mentioned in the bracket (Axis Bank, HDFC Bank, ICICI Bank and IDBI Bank) valid throughout the guarantee period mentioned in the contract/purchase order.

**2.6.5 Advance payments other than mentioned above will be loaded with interest @ 12% p.a. up to the delivery period quoted for the purpose of comparison of price amongst the bidders.**

2.6.6 Wherever, advance payment is involved, it will be paid only against submission of Bank Guarantee from SBI/nationalized banks or any one of the scheduled banks mentioned in the bracket (Axis Bank, HDFC Bank, ICICI Bank and IDBI Bank). Bank Guarantees should be furnished as per IPR format.

2.6.7 **Bank Charges:** All bank charges to be borne by the Contractor/Supplier.

2.6.8 No correspondence will be entertained within 30 days from the date of receipt of material and bills, whichever is later.

**2.7 Delivery:**

Delivery of the Goods and completion and related services shall be made by the contractor in accordance with the terms specified Purchaser in the contract including additional requirements, if any.

**2.7.1 Extension of delivery period:**

2.7.1.1 Delivery of the Goods and performance of the services shall be made by the supplier in accordance with the time schedule specified by the purchaser

2.7.1.2 If at any time during performance of the contract, the supplier or its sub-contractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the Supplier shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of Supplier's notice, Purchaser shall evaluate the situation and may, at its discretion, extend the Suppliers time for performance with or without penalty, in which case the extension shall be ratified by the parties by amendment of the Contract.

2.7.1.3 If the completion of supply of Stores/Goods is delayed due to reasons of Force Majeure such as acts of God, acts of public enemy, acts of Government, fires floods, epidemics, quarantine, restrictions, strikes and freight embargoes, the Contractor shall give notice within 5 days to the purchaser in writing of his claim for an extension of time. The purchaser on receipt of such notice after verification, if necessary, may agree to extend the Contract delivery date as may be reasonable but without prejudice to other terms and conditions of the contract.

**2.7.2 Delay in completion/Liquidated Damages:**

2.7.2.1 If the contractor fails to deliver the Stores/Goods within the time specified in the Contract or any extension thereof, the purchaser shall recover from the Contractor as liquidated damages sum of half percent (0.5 percent) of the total Contract price (Basic price) for each calendar week of delay. The total liquidated damages shall not exceed five percent (5 %) of the contract price. Stores/Goods will be deemed to have been delivered only when all its component parts are also delivered. If certain components are not delivered in time, the Stores/Goods will be considered as delayed until such time as the missing parts are delivered.

2.7.2.2 Where the Contract entered into is a composite one with supply cum erection and installation/commissioning activities and the completion of erection and installation/commissioning is delayed irrespective of the fact that whether supply of material has been made within the original delivery period, the contract is to be considered as a whole and Liquidated Damages will be recovered on the total contract value.

**2.7.3 Recovery of Sums Due:**

2.7.3.1 Wherever any claim for the payment of Liquidated Damages or loss suffered by the Purchaser arises in terms of money out of the contract against the Contractor, the Purchaser shall be entitled to recover such sums from any due payment under the Contract. In the event of this amount being insufficient, then the amount of damages or loss shall be recoverable from the payment that may become due to the contractor from this Contract or any other Contract with the Purchaser. Should this sum be not sufficient to cover the amount of damages or loss that may be recoverable, the Contractor shall pay to the Purchaser on demand, amount due. Similarly if the Purchaser had made any claim against the contractor under this contract or any other contract with the Purchaser, the payment of all sums payable under the Contract to the Contractor shall be withheld to the extent of claims due according to the Purchaser till such claims of the Purchaser are finally paid by the Contractor, pending which the same will be adjusted. Notwithstanding the provision for recovery through adjustment the Purchaser shall be free to recover his claims from the contractor as per the terms of this contract.

2.7.3.2 All demurrage, wharf age and allied expenses incurred by the Purchaser, if any, due to delayed clearance of Stores in view of non receipt, incomplete or delayed receipt of documents by the Purchaser, shall be recovered from the payment due to the Contractor.

**2.8 BAR/PERT Chart:**

To be provided as per the requirement of Purchaser.

**2.9 Subcontracts:**

The Contractor shall not subcontract, awarded under this Contract/purchase order if not already specified in the tender document.

**2.10 Assignment:**

The Contractor shall not assign, in whole or in part, its obligations to perform under the Contract, except with the Purchaser's prior written consent.

**2.11 Termination for Default**

2.11.1 The Purchaser may upon written notice of default to Contractor terminate the contract in whole or in part in circumstances detailed hereunder:

- (a) If in the judgment of the Purchaser the Contractor fails to make delivery of Stores/Goods within the time specified in the Contract Agreement or within the period for which extension has been granted by the Purchaser to the Contractor.
- (b) If in the judgment of the Purchaser the Contractor fails to comply with any of the other provisions of this contract.

2.11.2 In the event the Purchaser terminates the contract in whole or in part as provided in clause No.2.11.1 hereinabove, the Purchaser terminates the right to Purchase upon such terms and in such a manner as he may deem appropriate stores similar to that terminated and the Contractor shall be liable to the Purchaser for any additional costs for such similar stores and / or for liquidated damages for delay as defined in clause No.2.7.2 above until such reasonable time as may be required for the final supply of stores.

2.11.3 If the contract is terminated as provided in clause No.2.11.1, the Purchaser in addition to any other rights provided in the Article, may require the Contractor to transfer title and deliver to the Purchaser under any of the following cases in the manner and as directed by the Purchaser.

- (a) Any completed Stores
- (b) Such partially completed Stores, drawing information and contract rights there in after called manufacturing material as the Contractor has specifically produced or acquired for the performance of the contract as terminated. The Purchaser shall pay to the Contractor the Contract price for completed Stores delivered to and accepted by the Purchaser and for manufacturing materials delivered and accepted.

2.11.4 In the event the Purchaser does not terminate the Contract as provided in Clause No. 2.11.1 the Contractor shall continue the

performance of the Contract in which case he shall be liable to the purchaser for liquidated damages for delay as set out in Clause 2.7.2 until the Stores are accepted.

**2.12 Replacement:**

If the Stores/Goods or any portion thereof is damaged or lost during transit, the purchaser shall give notice to the Contractor setting forth particulars of such stores damaged or lost during transit. The replacement of such Stores shall be effected by the Contractor within a reasonable time to avoid unnecessary delay in the intended usage of the stores.

**2.13 Rejection:**

In the event that any of the Stores/Goods supplied by the Contractor is found defective in material or workmanship otherwise not in conformity with the requirements of the Contract specification, the purchaser shall either reject the Stores/Goods or request the Contractor, in writing to rectify the same. The Contractor, on receipt of such notification shall either rectify or replace the defective Stores/Goods free of cost to the Purchaser.

If the Contractor fails to do so, the purchaser may at his option either:

- (a) replace or rectify such defective Stores/Goods and recover the extra cost so involved from the Contractor or
- (b) terminate the Contract for default as provided under Clause No.2.11 and its sub-clauses above
- (c) acquire the defective Stores/Goods at a reduced price considered equitable under the circumstances. The provision of this article shall not prejudice the purchaser's rights under Clause No. 2.14.

**2.14 Guarantee/Warranty & Replacement:**

- (a) The Contractor shall guarantee the stores/goods supplied shall comply fully with the specifications laid down, for material, workmanship and performance.
- (b) The Stores/material/goods/equipment offered by the bidder should be guaranteed for a minimum period of twelve months from the date of acceptance, against defective materials, design, workmanship, operation or manufacture. If any defects are discovered therein or any defects therein are found to have developed under proper use arising from faulty materials, design or workmanship, contractor shall remedy such defects at his own cost provided he is called upon to do so within a period of 12 months from the date of acceptance thereof.
- (c) Should Contractor fails to rectify, the purchaser shall have the right to reject or repair or replace at the cost of the

- Contractor the whole or any portion of the defective Stores.
- (d) The decision of the purchaser, notwithstanding any prior approval or acceptance or inspection thereof on behalf of the Purchaser, as to whether or not the Stores supplied by the Contractor are defective or any defect has developed within the said period of twelve months after the acceptance of the stores or as to whether the nature of the defects requires renewal or replacement, shall be final, conclusive and binding on the Contractor.
  - (e) To fulfill guarantee/warranty conditions outlined in Clause 2.14 (a) to (c) above, the Contractor shall furnish a Bank Guarantee as per IPR format from a nationalized/scheduled Bank for an amount equivalent to 10% of the value of the Contract. The Bank Guarantee shall be valid through out the guarantee/warranty period. On the performance and completion of the Contract in all respects, the Bank Guarantee will be returned to the Contractor without any interest.
  - (f) All the replacement Stores/Goods shall also be guaranteed for a period of 12 months from the date of arrival of Stores/Goods at Purchaser's site.

## **2.15 Contractor's Liability for Defective Stores:**

2.15.2 The Purchaser may accept the Stores, if it is complete in all respects or alternatively accept the same on such terms as may be considered appropriate. If the Stores, after the acceptance thereof is discovered to have defects, latent or otherwise, notwithstanding that such defects could have been discovered at the time of inspection, or any defects therein are found to have developed during the Guarantee Period while under proper use of subsequently it is found that Stores failed to fulfill the requirements or Particulars of the Contract or developed defects after erection / put into use within a period of 12 (twelve) months from the date of acceptance, the Purchaser shall be entitled to give a notice to the Contractor within 12 months from the date of acceptance of stores setting forth details of such defects or failure and Contractor shall forthwith make the defective Stores good or alter the same to make it comply with the requirements of the Contract at his own cost. Further, if in the opinion of the Purchaser, defects are of such a nature that the same cannot be made good or repaired without impairing the efficiency or workability of the Stores or if in the opinion of the Purchaser, such opinion being final, the Stores cannot be repaired or altered to make it comply with the requirements of the Contract, the Contractor shall remove and replace the same with a Stores confirming in all respects to the stipulated specifications at the Contractor's own cost. If the Contractor fails to make the desired repairs/ replacement within reasonable time then such repairs/replacement at the cost of the Contractor shall be carried out by the Purchaser, with Stores of the same Particulars or when the stores conforming to the stipulated

particulars are not in opinion of the Purchaser readily procurable, such opinion being final, then the nearest available substitute thereof.

2.15.3 Should the Contractor fails to comply within a reasonable time of issue of notice, the Purchaser may reject at the cost of the Contractor, the whole or any part of the Stores as the case may be, which is defective or fails to fulfill the requirements of the Contract and make the desired repairs/replacement as stipulated above.

2.15.4 In the event of such rejection the Purchaser shall be entitled to use the Stores in a reasonable and proper manner for such time as sufficient to enable the Purchaser to obtain replacement, as hereinbefore provided.

2.16 The Contractor/Supplier shall at all times indemnify the purchaser against all claims which may be made in respect of the stores/material/goods/equipment for infringement of any right protected by Patent Registration of design or Trade Mark and shall take all risk of accidents or damage, which may cause failure of supply from whatever cause arising and the entire responsibility for sufficiency of all means used by him for the fulfillment of the contract.

2.17 **Amendments:**

Any amendment to the Contract which may be necessary will be a result of a mutual agreement between the Parties. It will be established within a reasonable time in the form of an amendment to the Contract, to be signed by both the Parties.

2.18 **Force Majeure:**

Force Majeure is herein defined as any cause which is beyond the control of the Contractor or the Purchaser, as the case may be which they could not foreseen or with a reasonable amount of diligence could not have foreseen and which substantially affects the performance of the Contract, such as:-

- (i) Natural Phenomena, including but not limited to floods, droughts, earthquakes, and epidemics.
- (ii) Acts of any Government, domestic or foreign including but not limited to war-declared or undeclared, priorities, quarantines, embargoes.
- (iii) Other Phenomena including but not limited to hostilities riots, civil commotion and declared lock-out in Contractor's works.
- (iv) Provided that Parties shall not be liable for delays in performing its obligations resulting from any Force Majeure causes as referred to/or defined above. The date of completion will subject to hereinafter provided, be extended by reasonable time even though such cause may occur after contractors performance of his obligations has been delayed for other cause. However, the

Contractor is not entitled to increase in statutory levies that have come into force during the extended delivery period.

2.19 **Exercising the Rights and Powers of the Purchaser:**

All the rights, discretion and powers of the Purchaser under the Contract shall be exercised by the Purchaser through written communications which shall be given by the Director or other officers authorized by him for and on behalf of the Purchaser.

2.20 **Jurisdiction:** The contract/Purchase order shall be governed by the Laws of India for the time being in force. The Courts of Ahmedabad only shall have jurisdiction to deal with and decide any legal or dispute arising out of this contract.

2.21 **Settlement of disputes:**

2.21.1 The Purchaser and the Contractor shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract.

2.21.2 If the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.

2.21.3 The dispute settlement mechanism/arbitration proceedings shall be concluded as under:

In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Arbitrators one each nominated by the Purchaser and Contractor from their respective organizations. In case the said Arbitrators are not able to settle the dispute by themselves, the matter shall be referred to the Arbitrator mutually nominated by the Purchaser and the Contractor and whose decision will be final and binding on both the parties.

2.21.4 The venue of the arbitration shall be the place from where the purchase order or contract is issued.

- 2.21.5 Notwithstanding any reference to arbitration herein, the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree; and the Purchaser shall pay the Supplier any due to the Supplier.
- 2.22 **Permits and Licenses:** The Contractor shall secure and pay for all permits and licence which he may require to comply with in respect of all laws, ordinances and regulations of the Government or Public Authorities in connection with the performance of his obligations under the Contract. The successful contractor shall be responsible for all damages and shall indemnify and save the Purchaser harmless from and against all claims for damages and liability which may arise due to his failure to comply with what is stated above.
- 2.23 **Training:** The successful tenderer shall, if required by the Purchaser, provide facilities for the practical training of Purchaser's engineering or technical personnel for their active association on the manufacturing process throughout the manufacturing period of the Contract/stores, number of such personnel to be mutually agreed upon. If demanded by the Purchaser, such training shall be conducted at Purchaser's site by the Contractor free of charge. The duration of training shall be mutually decided upon by the Purchaser and the Contractor.
- 2.24 **Operation/Instruction Manual:** Where operation/instruction manual is essential to enable the Purchaser to put the Stores to proper use, the Contractor shall furnish such operation/instruction manual along with the Stores in duplicate or the quantity required by the Purchaser.
- 2.25 **Test Certificate:** Wherever required, test certificates should be sent along with the despatch documents.
- 2.26 **Indemnity:** The Contractor shall warrant and be deemed to have warranted that all stores supplied against this contract are free and clean of infringement of any Patent, copy right or trade mark and shall at all times indemnify the Purchaser against all claims which may be made in respect of the stores for infringement of any right protected by patent. Registration of design or Trade Mark and shall all risk of accidents of damage which may cause a failure of the supply from whatever cause arising and the entire responsibility for the sufficiency of all the means used by him for the fulfilment of the contract.
- 2.27 **Counter terms and conditions of Suppliers:** Where counter terms and conditions printed or cyclostyled conditions have been offered by the supplier, the same shall not be deemed to have been accepted by the Purchaser unless specific written acceptance thereof is obtained.
- 2.28 **Erection of plant & Machinery:**
- 2.28.1 Tenderers must clearly and separately furnish in their offers the terms of supervision of erection and commissioning particularly in respect of plant/machinery/equipment.



2.28.2 Whether erection of a plant or machinery is the responsibility of the contractor as per the terms of the contract and in case the contractor fails to carry out the erection as and when called upon to do so within the period specified by the purchaser, the purchaser shall have the right to get the erection done through any source of his choice. In such an event, the contractor shall be liable to bear any additional expenditure that the purchaser is liable to incur towards erection. The contractor shall, however, not be entitled to any gain due to such an action by the Purchaser.

2.28.3 In respect of Contractors involving installation and commissioning by the overseas supplier where identifiably charges for the same has been quoted by the tenderer, he shall bear the income tax liability as per the rates prevailing at the time of undertaking the job in accordance with the income tax act in force in India, which at present is 20% on the installation and commissioning charges.

2.28.4 In all cases where contracts provide for supervision of erection and commissioning or for test at the Purchaser's premises the Purchaser except where otherwise specified, shall provide free of charge, such labour, Materials, fuels, stores, apparatus and instruments as may be required from time to time and as may reasonably be demanded by the contractor to carryout efficiently such supervision of erection and commissioning and for the requisite test. In case of contracts requiring electricity for the completion of erection and commissioning and testing at site, such electricity shall be supplied free to the Contractor.

2.29 **Free Issue Material (FIM) (If specified in the tender documents):**

2.29.1 Wherever contracts envisage supply of Free Issue Material (FIM) by the Purchaser to the contractor, such Free Issue Material shall be safeguarded by an insurance policy to be provided by the Contractor at his own cost for the full value of such materials and the insurance policy shall cover, the following risks specifically and shall be valid for six months beyond the contractual delivery date.

- **Risk to be covered:** Any loss or damage to the Purchaser's material due to fire, theft, riot, burglary, strike, civil commotion, terrorist act, natural calamities etc. and any loss or damage arising out of any other causes such as other materials falling on purchaser's materials.
- **Insured by:** (Name of the Contractor)
- **Beneficiary:** Institute for Plasma Research, Near Indira Bridge, Bhat, Gandhinagar-382428.
- **Amount for which insurance policy to be furnished:** The amount will be indicated in the respective contract. The approx. value of FIM for this tender is Rs.23,49,464/- plus insurance to cover the unforeseen damages to the surrounding equipment for a worth of Rs.3 crore.

Free Issue Material (FIM) will be issued to the Contractor only after receipt of the Insurance Policy from the Contractor. The contractor shall arrange

collection of the FIM from the Purchaser's premises and safe transportation of the same to his premises at his risk and cost.

Notwithstanding the insurance cover taken out by the Contractor as above, the contractor shall indemnify the purchaser and keep the Purchaser indemnified to the extent of the value of free issue materials to be issued till such time the entire contract is executed and proper account for the FIM is rendered and the left over/surplus and scrap items are returned to the Purchaser. The contractor shall not utilize the Purchaser's free issue materials for any job other than the one contracted out in this case and also not indulge in any act, commission or negligence which will cause/result in any loss/damage to the Purchaser and in which case, the Contractor shall be liable to the Purchaser to pay compensation to the full extent of damage/loss. The Contractor shall be responsible for the safety of the free issue materials after these are received by them and all through the period during which the materials remain in their possession/control/custody. The free issue materials on receipt at the Contractor's works shall be inspected by them for ensuring safe and correct receipt of the material. The Contractor shall report the discrepancies, if any, to the Purchaser within 5 days from the date of receipt of the material. The Contractor shall take all necessary precautions against any loss, deterioration, damage or destruction of the FIM from whatever cause arising whilst the said materials remain in their possession/custody or control. The FIM shall be inspected periodically at regular intervals by the Purchaser for ensuring safe preservation and storage. The contractor shall also not mix up the FIM with any other goods and shall render true and proper account of the materials actually used and return balance remaining unused material on hand and scrap along with final product and if it is not possible within a period of one month from the date of delivery of the final product covered by this purchase order. The Contractor shall also indemnify the Purchaser to compensate the difference in cost between the actual cost of the FIM lost/damaged and the claim settled to the Purchaser by the insurance company. The decision of the Director, Institute for Plasma Research, as to whether the Contractor has caused any loss, destruction, damage or deterioration of the FIM while in his possession, custody or control from whatever cause arising and also on the quantum of damage suffered by the government, shall be final and binding upon the Contractor.

- 2.30 **Governing Language:** The contract shall be written in English language which shall govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in the English language only.
- 2.31 **Applicable Law:** The Contractor shall be interpreted in accordance with the laws of the Union of India and all disputes shall be subject to place of jurisdiction as specified in the Contract.
- 2.32 **Taxes and Duties:**
- 2.32.1 For goods manufactured outside India, the Supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside India.

- 2.32.2 For goods Manufactured within India, the Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred till its final manufacture/production.
- 2.32.3 If any tax exemptions, reductions, allowances or privileges may be available to the Supplier in India, the Purchaser shall make its best efforts to enable the Supplier to benefit from any such tax savings to the maximum allowable extent.
- 2.32.4 All payments due under the contract shall be paid after deduction of statutory levies (at source)(like ESIC, WCT, IT, etc.) wherever applicable.
- 2.32.5 **Excise Duty:** If the supply is within India, this institute is exempted from payment of Excise Duty as per notification No.10/97 Central Excise, dated 1st March, 1997 as amended by notification no. 16/2007 - Central Excise dtd. 1.03.2007.
- 2.32.6 **Customs Duty:** If the supply is from abroad this institute is permitted to import goods as per notification No.51/97 as amended by notification No.24/007 Customs dated 01.03.2007.
- 2.32.7 We do not issue C/D form.
- 2.33 Late/delayed tenders will not be accepted. Incomplete tenders may be rejected at the discretion of IPR.
- 2.35 **IPR is not bound to accept the lowest tender. IPR reserves the right to select any vendor at its sole discretion.**
- 2.36 **Result of the tenders:** Unsuccessful tenderers will not be informed of the result of their tenders.
- 2.37 The Director, IPR reserves the right to accept or reject any quotation/tenders fully or partly without assigning any reason.
- 2.38 IPR reserves the right to place order on a single party or to split the order at its sole discretion.

## **ADDITIONAL TERMS & CONDITIONS**

### **COMPLIANCE WITH VARIOUS ACTS :**

- The Contractor shall be fully responsible for complying with all the relevant statutory obligations as applicable from time to time including :
  - ⇒ Contract Labour (Regulation and Abolition) Act
  - ⇒ Minimum Wages Act
  - ⇒ Payment of Wages Act
  - ⇒ Employees Provident Fund Act
  - ⇒ ESI/Workmen's Compensation Act
  - ⇒ Bonus Act
  - ⇒ Fatal Accident Act
  - ⇒ Gratuity Act
  - ⇒ Any other act, as applicable from time to time
- Consequences arising out of the non-compliance with statutory requirements shall be the entire responsibility and be borne by the contractor.
- All the relevant records / documents / registers / correspondences / receipts etc., for the above may be produced for verification whenever desired by the Institute.
- The tender if awarded, the contractor will have to provide the necessary manpower only after getting the police verification done of each of the individuals.
- The contractor shall be responsible for lapses committed or omitted either inside or outside the premises by the persons deployed by the contractor in the campus.
- The contractor shall not assign or sublet, transfer or sub-contract the job awarded to them in favour of any other contractor or agency.
- There shall be no employee or employer relationship between the persons deployed by the contractor and the Institute as the essence of the contract shall be hiring the services which constitute expertise, security functions, enquiries/surveys and monitoring of security functions and not that of the persons.
- Within 15 days of the award of the contract, the contractor will be required to register themselves as the contractor with the concerned authorities and shall produce one copy of the licence to the Chief Administrator Officer.

- The contractor shall be fully responsible for all disputes, issues, claims & matters related to employment, non-employment & terms of employment as far as employees engaged by him are concerned. The contractor shall indemnify IPR for all appointment of his personnel under him and that they shall have no claim for permanent employment at IPR.
- There shall not be any privity of contract between the Institute on one side & employees engaged by the contractor on the other side and the contractor alone should be responsible for all matters arising out of employees engaged by him. There would be no direct control / supervision of the Institute on the employees of the contractor.
- The work should be carried out as per the instructions of Officer in charge. The contractor shall be required to ensure maintenance of Institute's decorum himself and by all the persons deployed by him.
- In case the contractor abruptly stops the work with/without sufficient notice, the Institute may decide to terminate the contract forthwith and will make immediate alternative arrangements. In such case, the Contractor shall be liable for making good the additional expenditure that may be incurred by the Institute for making alternative arrangements, till appropriate arrangements are made through calling the quotations, besides forfeiture of security deposit.
- The contractor shall ensure that all the persons deployed by him are free from all communicable contagious infectious and other diseases and the contractor shall have them medically examined in case of any illness at his own cost. IPR also reserves the right to direct the contractor to get his persons medically examined by a physician approved by IPR at the sole expense of contractor. If in the opinion of the IPR any person deployed by the contractor is found to be suffering from any such communicable diseases or if any of the persons of the contractor is found to commit any misconduct or misbehaves, IPR may restrain such person from entering the premises and the contractor will have to replace him by a suitable person.
- The contractor shall be responsible for the persons deployed by him observing all safety rules from time to time. In case, IPR suffers any loss etc. of whatever nature from the persons deployed by you not following the safety regulations/instructions, the contractor shall be liable to make good all such losses as may be right to recover all such losses etc. from the security deposit and/or dues payable by IPR to the contractor besides other remedies open to IPR.
- The contractor shall maintain a fully equipped medical first aid box, which should be easily available to the persons deployed by him. In case of accident or death of any personnel deployed by the contractor while on duty it shall be the sole liability of the contractor.

- The contractor would be required to arrange the screening/scrutiny of personnel, which he intends to deploy at this Institute, on the date/time convenient to us before final selection is done. The contractor would be required to submit the Police verification certificate of all the personnel to be engaged for security work at any of the premises of the Institute.
- The contractor will be required to submit a copy of bio-data with the permanent address, one passport size photograph in respect of each of the security personnel to be deployed by him at the Institute.
- In the event of having found that the contractor or his personnel have contributed to a theft by deliberately convincing or by themselves taking part in such an activity, the Director, IPR reserves the right to forfeit the security deposit and terminate the contract immediately.
- The contractor will be required to provide identity cards to his security personnel under applicable labour laws.
- **DAMAGES FOR LOSS/DESTRUCTION / THEFT & PILFERAGE:**  
It shall be the duty of the contractor to ensure that no property, assets, instruments, machineries of the Institute are damaged, destroyed, pilfered or taken away by any person. In case, any such damage, destruction, loss, theft or pilferage arises due to negligence/lapse on the part of the persons deployed by the contractor, the contractor shall be fully accountable, responsible and liable for making good the loss.

**CONFIRMATION LETTER FROM BIDDER:**

Bidder will attach a confirmation letter (draft given below) with Part-A of the bid.

“This is to confirm that we have studied all documents and specifications of Tender notice for “Design, fabrication, testing, supply, installation and commissioning of 25 Ton Double Girder EOT Crane for PEB Lab building at IPR site” (Tender No.IPR/TN/PUR/5/16-17 dated 17-6-2016). We also hereby confirm that our Price Bid is in-line with the terms and conditions, management specifications and technical specifications given in this tender.”

**Place:**

**Date:**

**Signature**

**Name:**

**Name of the bidder:**

**Official Seal:**

**Note: A copy of the terms and conditions {Part-A(ii)} duly signed should accompany your quotation.**

**PRICE BID FORMAT**

*(Bidders are requested to offer their price bid in the following format)*

Sr.No.	Item Description	Quantity	UOM	Currency	Unit Price	Total Price
1	Design, fabrication, testing and supply of 25 Ton Double Girder EOT Crane for PEB Lab building at IPR site	1	No.			
2.	Installation and commissioning charges (including unloading, shifting, handling with accessories) <b>(Quote Lumpsum charge)</b>					
4.	<b>Spares (Optional)</b> Spares for two years of maintenance (Please provide separate list of spares with price break-up)	1	Lot			
4.	Other charges, if any					
	<b>Total</b>					

Description	Indicate percentage except Freight		
	Percentage	Included	Excluded
Packing and forwarding			
Excise Duty			
Sales Tax/VAT			
Insurance			
Service Tax on Sr.No.2 above			
Freight			

Description	Vendor Terms
Delivery terms	
Warranty	
Payment	
Delivery schedule	
Validity	
Any other terms	

**Place:**

**Date :**

**Signature of Bidder with seal**