



# Dr. B. Borooah Cancer Institute

(Regional Cancer Centre)

**Gopinath Nagar, A. K. Azad Road, Guwahati-781016**

No. BBCI / Misc-27/ RPP-IV/ NIT / 2709 / 2016

Date : 04.11.2016

## **NOTICE INVITING TENDERS**

Dr. B. Borooah Cancer Institute, Gopinath Nagar, Guwahati-16, invites sealed tender affixing court fee stamp worth Rs.8.25/- (Rupees eight and paise twenty five only) for supply, transport to site, installation and commissioning of **High Energy Linear Accelerator machine** from reputed and financially sound supplier / manufacturer/ dealer / firm / company etc. as per terms and conditions as indicated below:-

### **Important Dates**

**Last date & time of submission of sealed tenders : 07.12.2016 (Wednesday) upto 2:00 PM**  
**Opening of sealed tenders : 07.12.2016 (Wednesday) at 3:00 PM**

- [1] The tender shall consist of 3 parts, namely **Part-I, Part-II and Part-III**, in separate sealed covers. **Part-I** of the tender shall be the Earnest Money Deposit (EMD); **Part-II** shall cover **technical**; and **Part-III** the **commercial** aspects of the bid. **Part-I, Part-II and Part-III** offers shall be submitted in one sealed cover and this will be received upto **2:00 PM of 07.12.2016 (Wednesday)** and will be opened on the same day at **3:00 PM**. **The court fee stamp of Rs.8.25/- should be affixed in the Part-II (Technical Bid) of the tender.**

The tender will not be accepted after due date and time.

The tenderer or his representative may remain present at the time of opening provided they bring with them letters of authority from the corresponding tenderers.

In case the specified date of tender opening falls on / is subsequently declared a holiday or closed day for the purchaser, the tenders will be opened at the appointed time and place on the next working day.

- [2] Complete information should be given indicating among other things, facilities required for installation such as electric power supply, ventilation, ducting, minimum area required for housing the unit along with its control panel and optimum climatic condition for operating the system etc. Taking safety features into consideration they should also propose the detailed layout of the equipment.
- [3] The rate should be quoted as per the technical specifications to be offered by the vendor against the equipments to be quoted to perform the experiments enclosed herewith as **Schedule-‘A’**. The model, make & year of introduction with technical specifications may also be indicated. The tenderer if so desired may quote for more than one model / make.

**The details of the price of the equipment should be quoted in Part-III of the tender in the following manner:-**

- i. Basic price of the equipment with 2 (two) years warranty
- ii. Commercial offer of Optional items with 2 years warranty
- iii. Other charges such as freight, insurance, installation, charges on road permit, transportation upto site of installation, bank charges and any other charges whatsoever it may be;
- iv. Excise Duty, Customs Duty/ Octroi (*if applicable*)(*should be shown separately*)
- v. Road permit tax or any other entry tax (*if applicable*) (-do-)
- vi. State / Central Sales Tax / or VAT (*as may be applicable*) (-do-)
- vii. Comprehensive & non-comprehensive AMC charges for the period from 3<sup>rd</sup> to 10<sup>th</sup> year (i.e. beyond warranty period) for the basic equipments as well as optional items. All the items including consumables for functioning the equipment needs to be included in the CMC and no exclusion criteria will be accepted. The batteries of the UPS will be included in the CMC charges.
- viii. Various up-gradation modules available and price must be quoted separately.

**Note :**

- *If any tenderer quotes their commercial offer in any foreign currency other than Indian Rupee, the same will be converted into Indian Rupees for comparison taking the prevailing exchange rate on the date of opening of commercial offer.*
- *No exclusion criteria in terms of warranty coverage & comprehensive AMC (CMC) will be accepted.*

[4] To select the lowest bidder, the price comparison of technically shortlisted bidders will be made as follows:

- i. Basic price of the equipment with 2 (two) years warranty
- ii. Commercial offer of optional items with 2 years warranty (as recommended by Technical Assessment Committee)
- iii. Other charges such as freight, insurance, installation, charges on road permit, transportation upto site of installation, bank charges and any other charges whatsoever it may be;
- iv. Excise Duty, Customs Duty / Octroi (if applicable)
- v. Road permit tax or any other entry tax (if applicable)
- vi. State / Central Sales Tax / or VAT (as may be applicable)
- vii. Comprehensive CMC charges of the basic equipment and optional items for the period from 3<sup>rd</sup> to 10<sup>th</sup> year (including consumables & batteries of the UPS)

[5] Customs Duty Exemption Certificate on payment of customs duty, as may be admissible, will be provided in case of necessity.

[6] **Earnest Money Deposit of Rs.25,00,000/- (Rupees twenty five lakhs only)** must be submitted in form of Bank Draft (Nationalized Bank) in favour of **“Dr. B. Borooah Cancer Institute, Guwahati-16”** as **‘Part-I’** of the tender, which shall valid 60 (sixty) days beyond the validity period of the tender.

[7] The earnest money is required to protect the purchaser against the risk of the tenderer’s conduct which would warrant the forfeiture of the EMD. Earnest money of a tenderer will be forfeited, if the tenderer withdraws or amends its tender or impairs or derogates from the tender in any respect within the period of validity of its tender or if it comes to notice that the information / documents furnished in its tender is incorrect, false, misleading or forged without prejudice to other rights of the purchaser. The successful tenderer’s earnest money will be forfeited without prejudice to other rights of Purchaser if it fails to furnish the required performance security within the specified period.

[8] The Earnest Money Deposit will be returned to the tenderer by A/c payee cheque if the tender is not accepted. In case the tender is accepted, EMD will be returned without any interest, after receipt of performance security in form of Bank Guarantee from that tenderer.

- [9] Up-to-date valid Sales Tax Clearance certificate etc. from the appropriate authority should accompany the tender.
- [10] Successful tenderer will have to enter into a contract for supply, transportation, installation & commissioning of the equipment to the hospital as per the direction of the Institute in the prescribed format attached to this tender document '**Schedule-B**'.
- [11] Bank guarantee being 10% of the total value of work towards satisfactory performance and services during the warranty period of the items will have to be submitted by the successful tenderer in the prescribed format '**Schedule-C**' within 30 (thirty) days from the date of issue of notification of award by the purchaser after signing of the contract by all the parties to the agreement. The bank guarantee shall remain valid 60 days beyond the warranty period of the equipment.

In the case of Bank Guarantee furnished from banks outside India (i.e. Foreign Banks), it should be authenticated and countersigned by any nationalized bank in India by way of back-to-back counter guarantee.

The successful tenderer shall also submit performance bank guarantee @ 2.5% of the equipment value (as per contract) during the post-warranty Comprehensive Annual Maintenance Contract in the prescribed format '**Schedule-D**'.

[12] **Payment terms will be as follows:**

- (a) Payment for Indian origin items or foreign origin located within India will be made only on receipt of final Job Completion Report of the supply, installation & commissioning of the equipment from the Inspection Committee to be constituted by the Purchaser. In this connection, the supplier will submit bill for payment after satisfactory supply, installation & commissioning of the equipment.
- (b) Payment for imported items will be made through Letter of Credit. 70% of the total LC amount will be released to the Supplier against delivery of the equipment and balance 30% will be released on receipt of final Job Completion Report from the Inspection Committee to be constituted by the Purchaser after satisfactory installation and commissioning of the equipment.
- (c) Payment of Indian Agency commission, if any, will be made to the manufacturer's agent in the local currency for an amount in Indian rupees indicated in the relevant Price Schedule (as per prevailing rate of exchange ruling on the date of opening of commercial bid) and shall not be subject to further escalation / exchange variation. Payment shall be paid in Indian Rupees to the Indian Agent on proof of 100% payment to the Foreign Principal.

- [13] **The warranty** of the equipment / machinery including local items (and battery replacements for UPS) should be for a **minimum period of two (2) years** from the date of installation / commissioning. During the period of warranty of the equipment/ instrument with accessories to be supplied, the tenderer shall provide free maintenance services and replacement if required free of cost. Any new application software up-gradation will be provided free of cost and without any extra charges during the warranty period and no exclusion criteria will be accepted.

The **details of year-wise Annual Maintenance Contract (both comprehensive and non-comprehensive) from 3<sup>rd</sup> year to 10<sup>th</sup> year** beyond expiry of the warranty period of the equipment/ instrument should be quoted separately for the basic equipments and optional items. All the items including consumables for functioning the equipment needs to be included in the CMC and no exclusion criteria will be accepted. The batteries of the UPS will be included in the CMC charges.

All software updates should be provided free of cost during CMC period. The proforma for Annual Comprehensive Maintenance Contract will be as per '**Schedule-E**'.

The tenderer shall also give assurance for repairability, availability of spare parts for maintenance of the unit upto 15<sup>th</sup> year.

- [14] Various up-gradation modules available and price must be quoted separately.
- [15] Good after sales service facilities should be available for maintenance/repair of the equipment.
- [16] The tender document may be obtained during the office hours from the office of the undersigned on payment of **Rs.20,000/-** (Rupees twenty thousand only) (non-refundable) **either in cash or by A/c payee Demand Draft or banker's cheque** drawn in favour of '**Dr. B. Borooah Cancer Institute, Guwahati-16**'. **Photocopy of the document in support of the payment of the tender fee is to be submitted along with the Part-I of the tender invariably.**

The detail tender documents can also be downloaded from our website **www.bbcionline.org** (*see bulletin → tender..*). The tender document downloaded from the website will be accepted only on furnishing of non-refundable tender fee in the form of crossed Demand Draft / Banker's Cheque of **Rs.20,000/-** (Rupees twenty thousand only) separately drawn on any nationalized bank in favour of 'Dr. B. Borooah Cancer Institute, Guwahati.' In this case, the tender fee shall be submitted along with the EMD in the Part-I of the tender. However, the tender cost should not be mingled with EMD. If the tender document is downloaded from our website, while furnishing the tender, it should be superscribed legibly on the left corner of the sealed cover as "**TENDER COPY IS DOWNLOADED FROM BBCI WEBSITE**".

- [17] All pages of the Tender should be page numbered and indexed.
- [18] The tender is to be duly signed on all the pages as a token of having accepted all the terms and conditions (no thumb impression is to be affixed).
- [19] The tender documents are non-transferable.
- [20] **Process of opening / screening / selection of tender :**

- (a) In the first instance, the **Part-I** of the tender i.e. EMD (Earnest Money Deposit) will be opened by the Tender Opening Committee. **The offers without EMD (part-I) of the tender will not be considered for further process of evaluation.**
- (b) Thereafter, the valid **Technical Bids (Part-II)** of the tenderer will be opened. The valid technical offers will be evaluated by a **Technical Assessment Committee** of the Institute, for which the date and time of the meeting will be communicated in writing to the respective vendors.

Representative/s of the valid tenderers should be present during the course of technical assessment by the Technical Assessment Committee for technical clarification, if any. The TAC will recommend the technically short-listed vendors for further consideration.

- (c) The commercial offers of the technically shortlisted vendors/equipments will only be considered for price comparison / ranking purpose.
- (d) The date and time of opening of the commercial bids of the technically short-listed tenders will be intimated. Representatives of respective vendors / companies may remain present at the time of opening of the commercial bid, when intimated.
- [21] The equipment to be supplied should be of best quality of reputed manufacturer, i.e. to provide all latest and state of the art Equipment.

[22] The tenderer should submit their **credentials along with Part-II (Technical Bid)** of the tender consisting of the following:-

- i. Court fee stamp of Rs.8.25p (to be affixed)
- ii. Particulars of the participating firm / vendor / company (tenderer) in the prescribed format '**Schedule-F**'
- iii. Certificate of previous experience of similar job with list of institution / Govt. Department / Agency where supplied.
- iv. Certificate of dealership etc. from the appropriate manufacturer in case the tenderer is a dealer.
- v. Certificate in regard to license of manufacturing in case of manufacturer.
- vi. Certificate in regard to registration of firms along with trade license.
- vii. Certificate of quality control if any in respect of equipment to be supplied.
- viii. An affidavit duly attested by the Notary Public (in original) on a non-judicial stamp paper of Rs.10/- that the tenderer (company / firm) is not supplying the same item at lower rates quoted in this tender to any government / private organization or any other institution during past one year.
- ix. An affidavit duly attested by the Notary Public (in original) on a non-judicial stamp paper of Rs.10/- that there is no vigilance / CBI case pending against the firm / supplier.
- x. Performance Statement (for last 3 years) as per **Schedule-G** along with relevant copies of orders and end users' satisfaction certificate.
- xi. Detail technical specifications of the instruments / equipments with make and model to perform the experiments.
- xii. Photocopy of the document in support of payment of the tender fee.
- xiii. Bank Account details of the company / vendor
- xiv. Compliance statement based on technical specifications prescribed in the tender notice.

The brochure / leaflets / catalogue in respect of the equipment as and where applicable may also be enclosed.

[23] The tenderers quoting as authorized representative of the manufacturer shall have three years of experience in the related field and should obtain documents from principals / manufacturer fulfilling the requirements in taking full responsibility of technical support, service and organizational support in the prescribed format '**Schedule-H**'.

[24] The sealed tender is to be dropped in the tender box as will be kept in the office of the undersigned within the period and time as mentioned above. However, outstation tenderer may submit tender/s by speed post/courier service/registered post to be received by the undersigned on or before the date of closing time of tender. The undersigned will not be responsible for any postal delay in receipt of the tender in due date and time. The tender if sent by post or by courier, but not received by the undersigned within the stipulated date and time will not be accepted.

[25] The tendered rates and the validity of bids shall be for a minimum period of one year from the date, as the tender are finalized /awarded. Any tender valid for a shorter period shall be treated as unresponsive and rejected.

In exceptional cases, the tenderers may be requested by the purchaser to extend the validity of their tenders up to a specified period. Such request(s) and responses thereto shall be conveyed by surface mail or by fax/ e-mail followed by surface mail. The tenderers, who agree to extend the tender validity, are to extend the same without any change or modification of their original tender and they are also to extend the validity period of the EMD accordingly. A tenderer, however, may not agree to extend its tender validity without forfeiting its EMD.

In case the day up to which the tenders are to remain valid falls on/ subsequently declared a holiday or closed day for the purchaser, the tender validity shall automatically be extended up to the next working day.

- [26] The rate should be quoted both in figure and in words.
- [27] The break-up of the training cost of 2 physicists and 2 Oncologists should be shown separately in the commercial offer.
- [28] The successful tenderer shall have to supply the intended equipment to this Institute at his own risk and responsibility and in good condition in all respects.
- [29] Incomplete tender not in conformity with the terms and conditions as in this tender notice will be rejected outright.
- [30] The undersigned reserves the right either to accept or to reject any or all the tenders without assigning any reason thereof and is not bound to accept the lowest tender.
- [31] Decision of the Technical Assessment Committee / Purchase Committee / Finance Committee or the Management Council of the Institute shall be final and binding in all cases.



**Director**

Dr B Borooah Cancer Institute  
Guwahati-781016

## SCHEDULE – ‘A’

### Technical specifications

of

### ADVANCED HIGH ENERGY LINEAR ACCELERATOR (LA) SYSTEM

1. High Energy Medical Linear Accelerator shall have futuristic advanced platform and shall have minimum photons of 6 and 15 MV & any five electron beams from 4 to 20 MeV range. The Linac shall deliver IMRT, VMAT/RAPID, ARC, 3D CBCT, and gated Delivery / active breathing coordinator (ABC) system as package and shall be upgradable to 4D kV / Cone beam CT (IGRT), advanced MLC for practicing SRS techniques etc. in future. Such options shall be offered in the tender and shall have validity of at least 2 years for such upgrade / any options, if the hardware upgrade is required, that shall be costed in and quoted to avoid any hidden charges in executing such options / upgrades. The main equipment and major features shall have AERB type approval / NOC and shall have FDA or CE approval.

#### 2. BASIC EQUIPMENT

a. The accelerator shall be capable of producing two clinically useful photon beams with energies of 6 MV and 15 MV. The minimum characteristics of each energy for a 10x10 cm field at 100 cm TSD should be as follows:-

Nominal Energy (MV)	D max (cm)	% Depth Dose at 10 cm depth (10 x 10 field)
6	1.5 ± 0.2	67.1 ± 1.5
15	3.0 ± 0.2	76.5 ± 2.0

For all the energies quoted, specify the above characteristics. A difference of ± 2% in the depth dose data from the IEC published values.

#### b. Dose Rate Beam Stability

1. The X-ray dose rate shall be variable in steps and the X-ray dose rate shall be variable 100-600 MU/minute or more for both 6 and 15 MV X-ray energies. The treatment dose rate should be at least 600 MU/minute. Buyer may not accept any optional price for higher dose rates for flat photons.

#### Linac Dosimetry Control System

The LINAC shall have built in dosimetry chambers with two separate sealed or unsealed chambers. Parameters of dosimetry system shall be as follows:-

Precision ± 1% or 1 MU

Linearity ± 1% or 1 MU

Reproducibility ± 2% or 1 MU

Dose Rate Dependence

c. Photon Beam Energy Stability:

- a. The quality index of a photon beam should not vary with time by more than  $\pm 1\%$  or comply AERB requirements.
- b. The bend magnet system shall be provided with energy defining apertures such that the nominal energy of the electrons beam existing from the bend magnet shall be within  $\pm 3\%$  of the nominal energy selected at control console for both photons and electrons.

d. RF Source: Magnetron / Klystron, RF Driver, Thyretron (RF) and RF coupler combination with 5 years full replacement warranty on full RF chain

e. Waveguide Type : Standing / Travelling wave

The Wave guide shall have at least 15 years full replacement warranty.

f. Electron Gun : Sealed / Unsealed and shall have at least 5 years full replacement warranty.

g. Treatment Modes Normal – TSD / TAD

Rotation – CW / CCW

ARC – CW / CCW

Dose rate – MU / degree

3. Field size specifications

The field size is defined as the distance along the radial and transverse axes between the points of 50% density on an x-ray film taken at 100 cm TSD with minimum buildup. The display, light field size and mechanical display should be accurate to within  $\pm 1$  mm for field sizes  $\leq 10 \times 10$  cm<sup>2</sup> and  $\leq 2$  mm for field sizes  $>10 \times 10$  cm<sup>2</sup> or comply AERB requirements.

The accelerator shall provide a continuously variable rectangular, unclipped field size from  $1 \times 1$  cm<sup>2</sup> to  $35 \times 35$  cm<sup>2</sup> at 100 cm SSD. The Maximum clipped field size should be equal or exceed  $40 \times 40$  cm<sup>2</sup> at 100 cm SSD. Clipped corners are unacceptable for field smaller than  $35 \times 35$  cm<sup>2</sup>.

4. Radiation Field Penumbra

The width between the 20% and the 80% isodose lines measured for  $10 \times 10$  cm at depth of 10 cm at 100 cm SSD should not be more than 7 mm.

5. Congruence between optical & Radiation fields:

The congruence between optical and radiation fields for all photon energies for  $5 \times 5$  cm<sup>2</sup>,  $10 \times 10$  cm<sup>2</sup>,  $30 \times 30$  cm<sup>2</sup> or for a field of maximum dimension for 0 deg, 90 deg, 180 deg and 270 deg gantry angles with SSD=100 cm at the depth of reference plane should be as per FDA / AERB recommendation.



## 6. Beam Profile

Field Flatness Specifications Variation of x-ray intensity relative to the central axis shall be  $\pm 3\%$  at 100 cm SSD and 10 cm depth over the central 80% of the field for the longitudinal, transverse and diagonal axes of all field sizes from 10x10 cm to 40x40 cm. Stability of the flatness with gantry rotation at 0 deg, 90 deg, 180 deg and 270 deg at 10 cm depth on x, y and diagonal axis for all field sizes from 10x10 cm to maximum field size should not be more than  $\pm 3\%$  (As per IEC guideline). The flatness criteria applied to beam profile at D max should show peripheral horns not exceeding 105% of the central axis dose.

## 7. Field Symmetry Specifications:

The maximum percent difference of average doses shall not exceed  $\pm 2\%$  for the longitudinal and transverse halves of the field at 100 cm TSD and 10 cm depth at gantry angles of 0, 90, 180 and 270 degrees. Field sizes shall be specified as 10x10 and 40x40 cm<sup>2</sup>. Average dose is defined as the arithmetic average of minimum and maximum doses within the central 80% of the field for both axes.

## 8. X-ray Contamination

The X-ray / electron / Neutrons leakage and contaminations should comply the AERB guidelines. All safety systems including head leakage should be as per IEC / AERB guidelines.

The x-ray contamination of the electron beam shall be less than 5% of the maximum dose for all energies specified previously.

- a. X-ray absorbed dose due to leakage radiation (excluding neutrons) outside useful beam but inside a plane circular area of radius 2 m centered around and perpendicular to central axis at normal treatment distance as per AERB.
- b. The electron contamination should not be more than 1%.
- c. Radiation leakage limits shall be within appropriate regulatory agency guidelines as follows:-
  1. Photon leakage. The photon leakage rate at any point one meter from the target outside the cone defined by the primary x-ray collimator shall be less than 0.1% of the absorbed dose at the isocenter.
  2. Collimator transmission. The movable collimators shall not permit transmission of radiation exceeding 0.5% of the central axis dose at Dmax measured in air for both photon energies.
- d. Neutron leakage. The neutron leakage rate should not exceed 0.15% expressed in neutron dose equivalent (REM) when added to the photon leakage for a 10x10 cm field at the isocenter at any point one meter from the target when the jaws are closed or to comply AERB requirement.

9. Electron Energy : minimum 5 Beam energies between 4-18 MeV (more energies if available may be offered without any additional cost).

- a) Dose-Rate for electron energy : Please specify the dose rates and higher dose rates for special treatments.
- b) Field Size

The electron beam size is defined by the inside dimensions of the electron beam applicators projected geometrically to a plane surface at 100 cm SSD. At least 4 applicators preferably with Minimum – 5 x 5 cm<sup>2</sup>, Maximum – 20x20 cm<sup>2</sup> or more; there shall be an arc applicator provided for electron arc treatment.

A method to obtain irregular field shapes shall be provided.

It shall be possible to visualize both the field defining light and the optical distance indicator with an electron applicator in place.

- c) Beam Flatness (Electrons) Variation of electron intensity relative to the central axis shall not exceed 5% over within the central 80% of radial and transverse axes for photons field sizes 10x10 cm to 20x20 cm at 10 cm depth and satisfy local and Indian regulatory AERB requirements.
- d) Beam Symmetry:- The maximum percent variation in the average electron intensity to the longitudinal and transverse halves of the electron field at D max for a 10x10 cm and 25 x 25 cm field at 100 cm SSD shall not exceed  $\pm 2\%$  at gantry angles of 0, 90, 180 and 270 degrees.

The average electron intensity is the average of the maximum and minimum points within the central 80% of the field for each of the axes.

## 10. Other Specifications

- a) The target to axis distance should be 100  $\pm$  0.2 cm or to comply AERB requirement
- b) The isocenter shall lie within a sphere of radius 1 mm or to comply AERB requirement
- c) The accelerator gantry shall be capable of rotation equal to or greater than 360 degrees with a variation of the mechanical and radiation isocenter during rotation of less than  $\pm$  1.0 mm throughout the entire rotation with variable gantry speed.
- d) Digital scales indicating gantry angle position shall be provided both in then treatment room at the control console. Accuracy of the scales shall be  $\pm$  0.5 degree.
- e) The distance from the end of the lower collimator to the isocenter shall be  $\geq$  41 cm.
- f) The bottom of the blocking tray should be greater than 30 cm from the isocenter.

- g) The height of the isocenter above the finished floor shall be less than 130 cm
  - h) Digital scales indicating collimator angle position shall be provided both in the treatment room and at the control console. Accuracy of the scales shall be  $\pm 0.5$  degree.
  - i) The Chiller system shall be the integral part of the equipment supplied.
  - j) Imported voltage stabilizer shall be provided for power spike protection.
  - k) In addition to meeting above specifications for radiation leakage, the LINAC should also meet all the mandatory safety and radiation leakage regulations or as specified by AERB.
  - l) Focal Spot size should be 1-2 mm (smallest is preferable)
  - m) UPS along with battery should be provided to give back up at least 30min for the machine, machine room & control console room in case of power failure.
11. Photon Arc Therapy Bi-directional arc therapy should be included with Automatic calculation of Dose per Degree based on the Dose Rate selected and the Arc angle set.
12. Beam characteristics: for electrons and Photons shall satisfy local and Indian regulatory authority which is mandatory.

### **13. Gantry**

- a) Rotation  $\pm 180^0$  (360<sup>0</sup> total)
- b) Read out – Digital and Mechanical
- c) Accuracy dig-readout  $0.5^0$
- d) Control – Hand pendent and control –console
- e) Target – Axis Distance. -100  $\pm 2$  mm or better
- f) ODI Range – 75 cm to 150 cm
- g) ODI Accuracy  $\pm 0.1$  cm
- h) Gantry Rotation Isocentre less than or equal to 2 mm dia. Sphere please specify.

### **14. Collimator:**

- i) Rotation - Preferably  $\pm 180^0$  rotation
- j) Control – Hand pendent and control – console
- k) Readout accuracy -  $\pm 0.5^0$
- l) Collimator Rotation Isocentre 2 mm dia. Sphere

15. Physical / Motorized / Dynamic / Virtual Wedge – Please specify.

### **16. Asymmetric Collimators**

- a) X & Y both Asymmetrical
- b) Travel ranges – X & Y : Please specify

### **17. Multi-leaf collimator (MLC)**

- a) Field size : please specify.
- b) Independent drives for each leaves
- c) Leaf width : please specify
- d) Work station : Latest version.
- e) Integration (full Networking), conventional Simulator, CT scanner, CT Simulator, MRI & RFA should be done via Planning System)
- f) 3D CRT, IMRT, VMAT/RAPID ARC delivery shall be offered. VMAT / RAPID ARC shall have dynamic control of MLC, dose rate, diaphragm, gantry, collimator rotation and shall be capable of full field VMAT / RAPID ARC, SRT & SBRT capability.
- g) Leaf retracting position : please specify
- h) High over center travel of MLC leaves (>10cm) for all treatments.
- i) Leaf height : please specify
- j) Leaf material : please specify
- k) Coincidence of light & x-ray field  $\pm 2$ mm
- l) Penumbra shall be <7mm for 10x10 field
- m) Transmission within 0.5%
- n) X-ray leakage within 0.2%
- o) Minimum leaf speed shall be 0cm / second
- p) Maximum leaf (including each leaf guide excluding carriage) speed : please specify
- q) Positional accuracy of the leaves during treatment 0.5 mm
- r) Inter-digitization of leaves shall be provided.
- s) Two nos. of treatment in-room monitors 19" TFT to be provided.

### **18. Treatment Couch:**

- a) Versatile extended range shall be supplied
- b) Movement range : Please specify.
- c) Electrical & Mechanical Control in case of power failure
- d) Control-Local and / or Remote
- e) Shall have indexed carbon fibre table top

### **19. Accessories:**

- a) Front and back pointer – mechanical and / or laser
- b) CCTV / Camera Two nos. one wide angle & one remote control with remote zoom & focus facility
- c) Laser alignment system – Green / Red colour (3 cross + 1 line)
- d) A patient communication system with 6 channels shall be supplied.
- e) Interface mount to be provided for shadow trays.

### **20. Portal Imaging & Accessories**

- a) Portal imaging should be fully integrated with Accelerator
- b) Should be able to take images at any Gantry angles with variable X-Y movements, Robotics Arm with remote control.
- c) Should have Digital technology with High Resolution 1024 x 768 pixels or more Imaging (Amorphous Silicon Flat Panel Based Technology)

21. (a) Preferably KV based 3D IGRT and KV/MV based Portal Imaging shall be provided and such system shall have FDA/CE clearance. The System shall have x-ray source which may be manual or automatic movement with an automatic flat panel system of 1024 x 1024 pixel or higher and shall have software for 2D radiography, 2D fluoroscopy and 3D cone beam (volume) CT software's, with manual / automated DICOM. kV / MV IGRT QA tools.

(b) Respiratory gated treatment delivery system / active breathing coordinator (ABC) system which can be used in both CT scanner and Linear Accelerator shall be provided.

## **22. Oncology Information System complete with Networking**

Features shall include –

a) Record & Verify System

b) Transfer of all parameters from available CT Simulator / scanner, MRI, PET-CT, if DICOM is available to Treatment Planning System and contouring station for Automatic contouring etc.

c) Transfer of all parameters Treatment Planning System to the linear accelerator for Automatic treatment setup & delivery.

d) Transfer of Fluoroscopy images from CT Simulator to Portal Imaging System for Comparison.

e) Transfer & Execution of MLC Position Parameters for normal treatment & IMRT treatment including step & shoot and Sliding Window (Dynamic), VMAT/RAPID ARC or future SRS/SRT techniques from Treatment Planning System.

## **23. Dosimetry and QA**

### **Radiation Therapy Beam Analyzer**

Require a full-fledged three dimensional Water Phantom & Dosimetry System and therapy beam analyzer for performing Off-axis profiles, PDD, point dose measurement, beam symmetry tuning, Dose rate constancy check, vector scan and TG51 lead foil measurement for low and high energy Photon and electrons. All the measurements should be computer controlled and user friendly. All components comply with national and international regulations and safety rules. All components of the system and all available options are controlled by the same software that runs under Microsoft Windows of latest version of window 2000 and Windows XP. The system should be suitable to measure pulsed radiation with fluctuation dose rate.

### **Ion Chamber:**

Necessary thimble ionization chamber should be there for measurement of field and reference signal. A thimble chamber of 0.6 cc volume and a plane parallel chamber should be there for photon and electron absolute dose measurement. The necessary holding devices and extension cables for the above chambers must be included. The chamber specifications should be quoted. The position accuracy should be better than  $\pm 0.1\text{mm}$ . The chambers should be properly calibrated and given necessary calibration certificate.

The positioning tool should be there to allow easy and exact positioning of the chamber's geometrical centre in the central beam and at the water surface. Apart from this the exact position of the chamber in the radiation beam should be possible via software.

The detector unit should be driven by stepper motor and step length should be adjustable in steps of 0.1 mm. The scanning speed should be adjustable between 5mm/s and 50mm/s in 5mm/s small steps. Further the delay times for each step should also be adjustable by the user. The acceleration of the step movement should also be changed as and when required.

The system should allow simultaneous movement in available direction for any vector scan.

The zero point, reference point and limit of the different detector units should be stored separately and permanently in the control unit.

The control pendant should display the actual position of the chamber position at any given measuring time.

### **Water Phantom / Radiation Field Analyzer:**

The scanning volume should be large enough to scan and should not be less than 48x40x48 cm.

To avoid bending of the tank's walls by water pressure and water absorption of the acrylic material the wall thickness should be not less than 2.0 cm.

The motor of the moving mechanism should not touch nor dip to the water to avoid mechanical stress to the acrylic tank.

The reproducibility of a position should be  $\pm 0.1$  mm throughout the whole phantom.

The digitally driven stepper motors should provide hysteresis free movements (stick and slip free).

The lift table should be electrically as well as manually operable.

The velocity of the vertical motion should be quoted and preferably should have two vertical velocities.

The Water Tank must be rotatable into positions 0 degree,  $\pm 45$  degree and  $\pm 90$  degree.

A highly accurate Positioning device directly supplied by the principals must be included.

### **Water reservoir:**

The water reservoir should be large enough to store the water and can be pump and drain to the water phantom as quick as possible. The water Reservoir must be able to hold the entire weight of the water without any change.

The weight of the whole assembly can be push or pull through the wheel with polyethylene or equivalent.

The lifting carriage should be electromechanical / elevating screw mechanism that keeps the height absolutely accurate.

The Lifting carriage and Water Reservoir must be imported and directly from the suppliers and must be complete with all facilities including TPR and TMR measurements. Completely Integrated Lifting Carriage and Water Reservoir.

The Water Reservoir must be compatible for TPR measurements and hence for TPR measurements the pump of the reservoir should drive automatically and electromagnetic valves makes sure that no water can flow the phantom tank to the reservoir during automatic TPR measurement.

The water reservoir should have a safety circuit that avoids the dry pump running.

### **Control Unit / Electrometer:**

A separate control unit for controlling the movement of the detector in any three directions should be possible.

A separate electrometer to collect the ions / dose from the chamber / detector should be there. The voltage to the chamber should be adjusted in the electrometer in steps of 50 V. The polarity of the chamber should be toggled between +/- . The electrometer should also be able to measure absolute doses for low and high energy photon and electron.

The gain of the electrometer should be automatic depending upon the signal collected by the field and reference detector. Further the user should also be given an option to change the gain to field and reference separately.

Necessary software to use the electrometer for absolute measurements should be provided.

The time constant should allow 10ms measurement times.

The external dosimeter should also be connecting to the water phantom.

The control unit should permanently store zero point, reference point and limit points for water phantom, air scanner and mechanical film densitometer separately.

These different sets of limit, zero and reference points can be retrieved independently.

The co-ordinates of the probe should display for all directions, simultaneously on a control pendant.

The control pendant can be attached either to the water tank or to the control unit.

The communication between the control unit and the computer should performed by a standard RS232 interface.

The high voltage for the probe should be switchable independently for each decreased in different voltage and sign of the measuring signal can be reversed.

A solid, water equivalent phantom made up of slabs of different thicknesses shall be provided by the vendor for external beam teletherapy dosimetry. It shall be possible to use this phantom for both photon and electron beam dosimetry. The phantom shall be free of contaminants and air bubbles. The slab shall be of 30x30 cm or more size totaling a thickness of 30 cm.

**Control Computer:**

The latest version of windows computer should have all the latest feature with color monitor and with printer / plotter (color) and branded UPS (45 min. back-up).

**The software**

Measurements can be done against time, against a monitor signal or against reference chamber.

Within the moving range arbitrary points can be measured.  
An arbitrary vector scan measurement should be possible.

Point dose measurement, Beam symmetry tuning and TG51 foil measurement should also be possible.

2D planes can be measured at any solid angle.

Isodose can be displayed and plotted that can constructed out of profiles and depth dose curves or measured matrices. The Isodose level should be freely closable Warning before unsaved date in the RAM should be overwritten.

The Isodose levels can be chosen after the measurement and without the necessity to have the water phantom connected.

Multiple closed Isodose lines and hot spots should be detected automatically.

Single measuring points, complete curves and parts of curves should be remeasured from a user definable point.

During the measurement the measuring curve should be display graphically and online on the screen.

A special measuring program allows a dose rate constancy check including a statistical evaluation.

Any kind of open, regular shaped, blocked or wedged field can be measured.

Fields from asymmetric collimators can easily be measured.

A special measuring routine for service purposes allows to easily checking the beam with respect to symmetry, flatness, homogeneity and energy.

Implemented routines allow the measurement, formatting and transferring of basic date to all-important therapy planning systems.



Secondary standard dosimeter with appropriate thimble chamber and parallel plate chambers with latest calibrations to be provided. **Including pin point chamber for small field dosimetry with phantoms, barometer and thermometer.**

**Solid equivalent slab water phantom with adapters for the above mentioned chambers should be provided.**

Film Dosimetric software should be provided for treatment verification.

### **Administrative Data:**

Comprehensive documentation of the measured data by automatic saving of the used measuring environment should simplify the interpretation of data even a long time.

The used measuring routine data can be reused either unchanged or with some of the parameter changed.

Data can be printed and plotted in numerical and graphical form on all printers and plotters that are supported by windows.

The administrative data can be changed after saving the measuring data. All measuring data should be furnished automatically with their administrative information and comprehensive filter function allows the easy selection of specific data.

The necessary software to network the 3D TBA system with the existing 3D TPS in the department of Radiotherapy must be offered.

### **Data Analysis:**

Various normalization should be possible viz. normalization to maximum for depth dose curves, normalization to maximum or center for profiles and normalization to maximum, center, position and value for isodose lines.

Homogeneity and symmetry should be calculated automatically and various national and international protocols can be selected.

Depth dose curves can be analysed according to the protocols DIN 6800/2 IAEA TR277, ICRU 35, CRMRI no.2, AAPM TH21/TG 25 and NACP.

### **Data transfer and data presentation:**

Modules should allow automatic formatting and transferring of measured data to treatment planning system available in the department.

The measured data can be stored in two different ASCII-formats (with selectable separation characters).

ASCII-data can be sent from external computers and be imported in to the water phantom software.

Image data for film dosimetry can be imported in to water phantom software. Data can be display graphically on the screen.

Crosshairs should allow the easy manual evaluation of a curve.

Plotting / printing of the measured data and correction functions can be printed (alphanumerically) and plotted (graphically).

#### **24. Immobilization Device:**

4 set Universal treatment base plate Made of Carbon Fiber Immobilization devices having a total solution to treat Pediatric to Adult, Head and Head & Neck Breast, Thorax, Abdomen, Pelvic with facility to make custom made Supine and prone head rest for Individual Patients to maintain an accuracy of less than 2 mm. along with appropriate thermo Sheets 200 nos. 40 for head, 40 H&N, 40 for breast, 40 for thorax, 40 for abdomen and pelvic. The same base plate shall be upgraded by adding localizer box, thorax abdomen bridges, wedges.

The vendor shall provide 4 set of carbon fiber based Head rest, prone Head rest universal, Pediatric Supine, Cushion for shoulder, Breast, board Carbon fiber with all required accessories.

Also the vendor shall provide –

- Water bath with digital temperature control (1 no.)
- Bolus 0.5 cm (3 nos.)
- Bolus 1.0 cm (3 nos.)
- Body caliper (2 nos.)
- Heat Gun (1 no.)
- Essential tools set (1 no.)
- Electron Foam cutter (1 no.)
- CT markers (1000 nos.)

#### **25. Training Schedule**

- a) On-site training should be provided to all staff for at least two weeks
- b) Additional training to be imparted on the equipment as follows, for two Physicists and two Oncologists for two working weeks in a developed world facility where the Linear Accelerator is being extensively used, two Department technician to be trained on operating procedures on the system for one week in reputed institution in the country.  
**The break-up of the training cost of 2 physicists and 2 Oncologists should be shown separately in the commercial offer.**

26. Software up-gradation, if any, within the period of comprehensive warranty should be supplied free of cost.

## **27. General :**

The successful tenders will have to liaison with the agency appointed for site preparation.

Pre installation requirement should be specified clearly.

If warranty and free AMC conditions are not adhered to and Comprehensive Maintenance Contract values are not mentioned, Dr. B. Borooah Cancer Institute reserves the right to reject the offer.

The RSD, AERB has approved the site plan of the Linear Accelerator to be installed at Dr. B. Borooah Cancer Institute. The tender offer must accompany Electrical Layout plan based on the AERB approved site plan of LA room. **The copy of the AERB approved LA room plan of the Institute is attached herewith as Schedule-I.**

**OPTION – 1**

**Treatment Planning System:**

The planning system shall have one calculation engine with planning capability for conventional, and arc electrons, conventional, wedge, 3D CRT/IMRT/VMAT/RAPID ARC. There shall be 3 separate (work station) contouring system with the ability to do virtual simulation, auto segmentation and auto fusion.

**Work Station / Server** – Please specify.

The system should have a fast multi-colour printer / plotter to print out various data and Isodose curves.

Ink Cartridges should be provided for at least 5 years.

**3D Teletherapy Software Features**

**Contouring:**

Volume definition should be possible using Volume Segmentation using threshold, Free hand contour tracing, Contour editing, 3D antistrophic Margins etc.

Volume delineation should be possible with Free hand contour tracking or Advanced volume segmentation using threshold in 2D or 3D or with predefined shapes. Various contour editing tools to modify the contour at any plane should be possible.

It is desirable to have the facility to contour in Axial, Sagittal, Coronal or in any oblique planes.

It should be possible to do manual, semi-automated, fully automated contouring / segmentation in the images.

The software should have facility for automated uniform or non-uniform margins. For example it should be possible to expand the clinical target volume (CTV) three dimensions by same magnitude or by different magnitudes to define the planning target will be considered as not meeting the requirements.

It should be possible to copy one organ to another with margin; add margins on a single slice, a range of slices or all slices.

It should also be possible to interactively edit the contours with user choice of segments to reject or accept.

Interpolate algorithm should be available to provide interactive, shape based interpolation – i.e. after contouring only in selected slices, the algorithm should automatically interpolate the closely fitting contours in other slices.

Interpolated contours may be edited : accepted or rejected.

The DRR / BEV image should display the machine diagram to allow real-time checking of machine and patient geometry.

Auto-outlining with Non-Uniform Margins.

Facility to contour on coronal and sagittal and on any arbitrary planes.

## **Image fusion software**

This should include automatic and interactive image registration and fusion of CT with MR/PET images for treatment planning.

This should include real time image reformatting and fully automated image alignment.

3D Fusion display with delineation of target in the fused image should be available.

## **Beam Placement & Definition**

It should support extensive beam shapers (shielding blocks, etc.) and beam definition methods manual or automatic beam placement tool.

Tools for real time checking of machine geometry.

Beam shaping should be possible in multiple ways like automatic shielding block definition conforming to selected volume, definition as aperture or shielding, manual freehand definition, automatic collimator jaw or multileaf position definition etc.

## **DRR features**

Interactive DRR calculation mode must be available Automatic window width / level selection for DRR.

DRR should be interactively updated when the isocenter position is modified should be possible to highlight or suppress different density regions in the DRR printing of DRR images should be possible.

DRR presets should be user defined Macro function to save a series of frequently used steps should be available.

Specify DRR image enhancement tools to improve DRR image quality Reconstruction of DRRs should be real-time or sub-second Direct printing of DRR on laser film should be possible.

Real-time displays of DRR as beam parameters are changed.

It should be possible to transfer DRR and BEV images to EPID of Linear Accelerator.

Depth Control in oblique projections must be possible.

Cross-hair display on DRR to provide scale information.

## **Support of asymmetric collimators and multileaf collimators (MLCs):**

It should be possible to define this asymmetric collimator feature, where both the X- and Y-pairs of jaws are asymmetric. The software should allow multi-leaf collimator placement up to 60 pairs or more.

## **Isocentre management**

The software should support separate isocenters for multiple target volumes or general regions.

Marked and final isocenters should be reported and displayed in the Localization package for easy confirmation of a physical simulation session.

Hardcopy of the isocenter coordinates should be possible for record of the simulation session.  
No limit on number of isocenters per target.

## **Volume Rendering:**

3-D view and volume rendering capabilities

Post processing features like Volume Rendering, Real-time multi-axial volume reconstruction, 3D surface rendering, Color 3D should be available.

It should allow complete 3D volume to be defined including complex 3D volumes, user selectable multi-images views, Beams Eye View, DRR etc.

At least two different calculation Algorithm should be provided for Dose module including Collapsed Cone Convolution /AAA convolution for photon beam dose calculation.

It should be possible to define the absolute dose to a specified point for each beam or MUs or time (isotope base machines).

Possible to define wedge fraction for motorized wedge plans.

Should have inhomogeneity and bolus correction

Should include various Dose Volume Histogram tools like

- Cumulative and differential histograms
- Comparison of requested Dose Volume Constraints versus achieved Dose Volume Histogram results

Volumes may be displayed in absolute or relative terms

Should be possible to Export Plans in RTP Connect format

Should including MonteCarlo dose calculation for Electrons module with possibility to have Calculation of electron beams of 4-30MeV from linear accelerators and support of Support for square, circular, and rectangular applicators.

The vendor shall also provide MonteCarlo photon based planning algorithm or its equivalent in calculation accuracy as module for IMRT, VMAT/RapidArc and dynamic conformal ARC.

- Offered VMAT/RAPID ARC software should be compliant with multimodality, and flexible dynamic treatment planning environment.
- Offered VMAT/RAPID ARC capability including support for single arc, multiple arc techniques.

Offered VMAT/RAPID ARC module should be of assured accuracy.

- Should be capable of delivering Complex plans by the Linac via optimal single, multiple or dual arcs with CW and CCW gantry motion to maximize treatment efficiency.
- Should be capable to generate superior plans while limiting leakage, scatter and integral dose to the OARs.
- Seamless connection with compliant R&V systems
- Should be capable to perform single and multiple arc capable Non-coplanar arcs for support of stereotactic radiotherapy and SBRT.
- Should be able to do Precision Dual Arc technique with back and forth gantry motion.

Offered VMAT/RAPID ARC module should be Easy to use

- Easy specifications of Dose Volume Objectives
- Dose distribution and DVH updated on all views during optimization
- Graphical visualization of optimized plan Intuitive

Offered VMAT/RAPID Arc module can handle simultaneous leaf position, collimator, gantry speed and dose rate variation and shall have Dynamic conformal Arc software with MLC shaping based on view of the target while gantry in rotation for SBRT/SRT delivery.

### **Image Import / Export:**

System should be able to import and export Image, and volume in DICOM 3.0 standard along with all Radiotherapy specific image data.

### **DICOM RT Data Import & Export**

Offered Software modules should be compatible to perform as below:

- Export of ideal or reconstructed Fluence distributions and Fluence maps in DICOM RT format
- DICOM RT plan export to various R&V and QA systems including (but not limited to):
- Oncology Information System connectivity

DICOM should be of latest version and should be compatible with the related existing facilities in the Institute.

### **Connectivity:**

The TPS should be of the latest & able to network with the like any vendor linac, Radiotherapy Simulator and diagnostic CT system etc.

### **Service Facilities:**

Factory trained and AERB /BARC approved Service Engineers / Application Specialist should be available in India to look after the installation and maintenance of the systems and should reach the Installation within one day during any malfunction of the unit.

### **Approval :**

As per standard recommendation.

## **OPTION-2**

### **Array Detector:**

One Array device must be based on ion chamber array resulting in an effective measuring field of 27 cm x 27 cm and giving the facility to use with slab phantom for measurements. The chamber must be a vented plane-parallel square shaped ion chambers with 5mm x 5mm x 5mm size and center to center spacing must be 10 mm.

It should be able to use for the dose verification of IMRT beams and routine quality control of high energy photon and electron beams by using the software and also it should be able to check the MLC leaf positioning. It should be able to measure the dose from dynamic and static fields in one run and display the readings in both dose rate and absorbed dose mode.

It should be able to perform the QA for high energy beams and dose verification for IMRT, IMAT, ARC beam techniques. It should be capable of doing complete pretreatment patient plan verification with one measurement.

Cylindrical & Rotational Phantom with inclinometer, lifting trolley & complete drive assembly with related software module for VMAT dynamic IMRT techniques. There should be a slot & provision to insert the 2D Ion Detector Array System into the Rotational Phantom for taking synchronous measurement with the Linac Gantry Rotation. The detector should always be perpendicular to the beam & thus removing the angular dependence.

The software should have the functionality like 3D volume analysis and CT overlay.

One additional Array Device with 900 or above liquid filled ionization chamber for patient plan verification & quality control of small fields. Detector spacing should be 2.5 mm & the maximum field size should be above 10x10 cm & below 12x12 cm essentially for use with Small field dosimetry. **This Array device should also be usable for Stereotaxy work.** This Array device should be usable with the Cylindrical & Rotational Phantom. One parallel plate chamber for electron dosimetry, one number of pin point chamber for small field dosimetry along with the calibration certificate for all these chambers.

Calibrated Barometer and thermometer to be included.

Note : Software up-gradation if any of optional items purchased, within the period of comprehensive warranty should be supplied free of cost.



## SCHEDULE – ‘B’

### FORMAT OF CONTRACT AGREEMENT TO BE SIGNED BETWEEN DR B BOROOAH CANCER INSTITUTE AND THE SELECTED VENDOR FOR SUPPLY, INSTALLATION AND COMMISSIONING OF EQUIPMENT

#### A G R E E M E N T

This agreement made on the ...(DATE)..... day of .....(MONTH).....Two Thousand ...(YEAR)..... between the **Director, Dr. B. Borooah Cancer Institute, Gopinath Nagar, Guwahati-781016** (hereinafter called the BBCI include the successor in office and assigned) of **THE FIRST PART** and M/s .....(**complete address of the supplier**) (hereinafter called the .....(**vendor name**))..... include the successors in office and assigned) of the **SECOND PART**;

2. Whereas M/s .....(**vendor**)..... submitted a tender No. ....  
**dtd.....** for supply of .....(**selected item name with make & model**)..... in pursuance of the tender notice issued by the First Party vide No.....(**purchaser’s tender notice no. & date**).....
3. Whereas M/s .....(**vendor**)..... is selected by the BBCI Authority for supply & installation of the said equipment as mentioned in clause No.2 as per technical specifications incorporated to this Agreement as **Annexure-2.**
4. Whereas M/s .....(**vendor**)..... has been authorized to represent M/s .....(**name of principal in case selected vendor is a authorized dealer / agency**)..... vide letter No..... dt..... attached in the technical part of their tender [**Annexure-3**] is the part of this Agreement.
5. Whereas M/s .....(**vendor**)..... on behalf of its principal M/s ..... (**Principal**)..... has agreed to honour all the conditions stated in the tender referred under clause (2) above and also the terms & conditions as laid down in **Annex-1 (Terms & conditions)**.
6. And whereas, M/s ....(**principal**)..... has relinquished its claim on the tender conditions under Clause (2) above by authorizing M/s .....(**selected vendor**).....
7. Now, the agreement witnesses the following:-

(A) **SUPPLY, TRANSPORT :**

M/s .....(**vendor**)..... will supply .....(**name of selected equipment with make & model**)..... within ..... **weeks / months (as per conditions quoted by tenderer)** from the date of receipt of the formal supply order with the product configuration as mentioned at **Annexure – 2** and will abide by all the terms and conditions as laid down here-in-under and in the Notice Inviting Tenders as aforementioned.

**(B) TRANSPORT TO THE SITE :**

The equipment shall be transported to the site of BBCI by **M/s .....(vendor).....**  
The Customs Clearance and payment of all other charges whatsoever will be the responsibility of the **M/s .....(vendor).....**, the Second Party.

**(C) INSTALLATION:**

The **above equipment** will be installed within 7 (seven) days of delivery by **M/s ... (vendor)....** at the site as may be provided at Dr B Borooah Cancer Institute, Guwahati.

Necessary repair / renovation of the existing room of the LA room at BBCI shall be the sole responsibility of M/s..... (selected vendor) for installation of the equipment.

**(D) COMMISSIONING :**

The **above equipment** will be commissioned and handed over to BBCI by **M/s .....(vendor).....** for hospital/clinical use. All the requirements for hospital use of the equipment shall be fulfilled by **M/s .....(vendor).....**

**(E) ACCEPTANCE TEST :**

- (i) Whereas the equipment is to be installed at the site and the acceptance test shall be performed by **M/s .....(vendor).....** in presence of BBCI's official/ expert whoever may be.
- (ii) The acceptance Test shall be performed and shall be minuted by **M/s .....(vendor).....** A signed copy of the said minute shall be submitted to BBCI. Possible short coming / deviation in the equipment as compared to the specifications and / or to the acceptance test set out shall immediately be rectified by **M/s .....(vendor).....** at its own cost and risk.
- (iii) Upon the Acceptance test having been successfully performed to prove compliance of the equipment / unit with the Agreement, the certificate of acceptance shall be prepared and signed by **M/s .....(vendor).....** and **countersigned by BBCI** shall form evidence of acceptance of the equipment under this Agreement.

**(F) USAGE :**

- (i) The BBCI undertakes not to use the equipment or cause or allow the equipment to be used prior to the issuing of a certificate of acceptance.
- (ii) The equipment delivered and installed under this Agreement is to be operated and used at the site only. **M/s .....(vendor).....** is responsible for handing over the equipment for hospital use of BBCI.
- (iii) All mandatory requirements for making equipment fit for hospital use are the responsibility of **M/s .....(vendor).....**
- (iv) BBCI will operate the equipment through competent personnel adequately to be trained by **M/s .....(vendor).....** for use of the equipment.

**(G) WARRANTIES :**

- (i) ..... years comprehensive warranty from the date of handing over of the equipment / machinery including local items (and battery for UPS) after possessing the acceptance test and in working condition for hospital use to BBCI shall be provided by **M/s .....(vendor).....**
- (ii) During the warranty period **M/s .....(vendor).....** will provide maintenance service and any spare parts will be replaced free of charge.
- (iii) Any new application software up-gradation will be provided free of cost and without any extra charges during the warranty period.
- (iv) **M/s .....(vendor)...** or its authority shall during the warranty period render free services in order to make the equipment functioning uninterruptedly.
- (v) In order to enable to avail itself of its rights under this warranty, BBCI shall immediately intimate **M/s .....(vendor).....** in writing of any defects. BBCI shall further give **M/s .....(vendor)....** every opportunity of inspecting and remedying such defects.
- (vi) 95% up-time guarantee subject to normal working hours / national holidays and week-ends will be provided by **M/s .....(vendor).....**. If such up-time is not achieved, warranty will be extended by the same amount of time. In case down-time exceeds 10 days, penalty will be paid for each individual equipment to Dr. B. Borooah Cancer Institute by the **vendor (M/s.....)** at the following rates.

- Rs. 25000/- per day for equipment value above Rs.200.00 lakhs
- Rs. 20000/- per day for equipment value above Rs.100.00 lakhs upto Rs.200.00 lakhs
- Rs. 15000/- per day for equipment value above Rs.75.00 lakhs upto Rs.100.00 lakhs
- Rs. 10000/- per day for equipment value above Rs.50.00 lakhs upto Rs.75.00 lakhs
- Rs. 5000/- per day for equipment value above Rs.20.00 lakhs upto Rs.50.00 lakhs
- Rs. 2000/- per day for equipment value above Rs. 10.00 Lakhs upto Rs.20.00 lakhs
- Rs. 1000/- per day for equipment value above Rs.5.00 lakhs upto Rs.10.00 lakhs
- Rs. 500/- per day for equipment value above Rs. 1.00 lakh upto Rs. 5.00 lakhs

This penalty will also applicable during the CMC period beyond warranty period.

**(vii) Comprehensive / Non-comprehensive Annual Maintenance Contract:**

On expiry of the 2 years's warranty period, **M/s .....(vendor).....** will provide **Annual maintenance contract** for the equipment and the UPS including batteries from 3<sup>rd</sup> year to 10<sup>th</sup> year either **comprehensive or non-comprehensive**, which will be opted by the **First Party**, at the following frozen rates.

Year	AMC charges (Rs.)	CMC charges (Rs.)
3 <sup>rd</sup> year	as per rates offered by the selected vendor	as per rates offered by the selected vendor
4 <sup>th</sup> year		
5 <sup>th</sup> year		
6 <sup>th</sup> year		
7 <sup>th</sup> year		
8 <sup>th</sup> year		
9 <sup>th</sup> year		
10 <sup>th</sup> year		

The proforma for Annual Maintenance Contract will be as per **Annexure-4** attached to this agreement.

The AMC agreement shall include minimum of 4 preventive maintenance visits and any number of breakdown calls per year. The Service Engineer of the second party will attend all breakdown calls within 24 hours after receipt of intimation from the first party. Repairs of any required will be carried out within 72 hours by the second party.

During the period of comprehensive maintenance contract, the spare parts to be required will be supplied by **M/s.....(selected vendor).....** free of cost. However under Non-comprehensive Maintenance contract, spare parts will be charged extra.

All software updates should be provided by the second party free of cost during the CMC period.

The supplier (the second party) guarantee towards supply of spare parts of the **equipment** for a period of 15 years.

**M/s.....(selected vendor).....** will depute factory-trained Engineer in Guwahati for good after sale service of the equipment.

(viii) **M/s.....(selected vendor).....** assures for repairability, availability of spare parts for maintenance of the unit the period upto 15<sup>th</sup> year.

**(H) PRODUCT LIABILITY:**

The equipment will be handed over to BBCI for surgical use. Upto the date of handing over the equipment, the insurance and other charges is the responsibility of **M/s.....(selected vendor).....**

**(I) VISIT AT SITE :**

**M/s.....(selected vendor).....** or its authorized persons shall be entitled at their own cost and risk, to visit and to inspect the equipment or any part thereof, as the case may be at the site. No charges shall be levied from BBCI in connection with such visits / inspections.

**(J) TRAINING :**

For use of the above equipment comprehensive training will be imparted to the users of the Institute at BBCI till familiarity with the system (minimum period of two weeks) by **M/s.....(selected vendor).....** free of cost.

M/s ..... will also provide training for two physicists and two oncologists for two working weeks in a developed world facility where the Linear Accelerator is being extensively used.

In addition, two Department technician will also be trained on operating procedures on the system for one week in reputed institution in the country by M/s .....

The operational manuals / user's manual in English Language and other materials of the equipment will be supplied by **M/s.....(selected vendor).....** to BBCI.

**(K) INDUSTRIAL AND INTELLECTUAL PROPERTY RIGHT :**

**M/s.....(selected vendor).....** is responsible for future maintenance of the equipment in the event of change of ownership or technology of the above product.

**(L) BANK GUARANTEE:**

**M/s.....(selected vendor).....** will submit Bank Guarantee being 10% of the total value of the equipment towards satisfactory performance and services during warranty period in the prescribed format attached to this agreement as **Annexure-5** within 30 (thirty) days from the date of receipt of formal purchase order from the First Party after signing of the contract by all the parties to the agreement. The bank guarantee shall remain valid 60 (sixty) days beyond the warranty period of the equipment.

In the case of Bank Guarantee furnished from banks outside India (i.e. Foreign Banks), it should be authenticated and countersigned by any nationalized bank in India by way of back-to-back counter guarantee.

The second party shall also submit performance bank guarantee @ 2.5% of the equipment value (as per contract) during the post-warranty Annual Maintenance Contract (comprehensive) in the prescribed format '**Annexure-6**'.

**(M) FORCE MAJEURE :**

- (i) Either party shall be entitled to suspend performance of its obligations under this agreement to the extent that such performance is impeded or made unreasonably onerous by any of the following circumstance -

Industrial dispute, or any other circumstances beyond the control of the parties such as fire, war, extensive military mobilizations, insurrections, requisition, seizure, embargo, restriction in use of power.

- (ii) The party claiming to be effected by force-majeure shall notify the other party in writing without delay on the intervention and on cessation of such circumstance.

**(N) PREMATURE TERMINATION :**

Notwithstanding anything to the contrary expressed or implied in this Agreement and without prejudice to any other rights or remedies available to it BCCI may after having given M/s.....(**selected vendor**)..... not less than 30 calendar days' notice to that effect terminate this agreement in the event that the M/s.....(**selected vendor**)..... has committed any breach or violation of any fundamental terms & conditions of this Agreement and fails to remedy the said breach or violation within 30 calendar days of such notice.

**(O) VALIDITY :**

This agreement shall be governed by the laws of India and within the jurisdiction of Gauhati High Court.

**(P) DELAYED DELIVERY:**

M/s..... (**selected vendor**).... must agreed to compensate to the extent of twice the interest burden incurred by the Institute on account of delayed delivery on the equipment for reasons which are directly under M/s.....(**selected vendor**)'s control.

It is, hereby agreed to set our signatures and seals as confirmed acceptance of the terms and conditions from either side i.e. **Dr. B. Borooh Cancer Institute** represented by the **Director** as **FIRST PARTY** and M/s..... (**selected vendor**).. represented by Mr..... as **SECOND PARTY**.

*For and on behalf of*  
**Dr. B. Borooh Cancer Institute**

*For and on behalf of*  
M/s.....(**selected vendor**).....

Witnesses:

- |    |    |
|----|----|
| 1. | 1. |
| 2. | 2. |

Terms and conditions governing the supply, installation & commissioning .....(equipment name, model & make).....

1. The equipment will have to be supplied as per the enclosed configurations against each item (**Annexure : 2**) and as per the tender No.....(**Tender Notice no. & date**)...
2. The equipment should be current at the time of dispatch, i.e. to provide all latest and state of the art equipment.
3. **M/s.....(selected vendor).....** will supply **equipment (model, make)** within ..... **Weeks / months** from the date of receipt of the formal supply order with the product configuration as mentioned at **Annexure – 2** and will abide by all the terms and conditions as laid down here-in-under and in the Notice Inviting Tenders as aforementioned.
4. **The price** of the equipment with its accessories will be Rs.....which is inclusive of customs duty, clearing & forwarding charges, octroi, VAT /CST and all other charges with 2 years comprehensive warranty.
5. **Payment terms & conditions**
  - (a) **Payment for Indian origin items or foreign origin located within India** will be made only on receipt of final Job Completion Report of the supply, installation & commissioning of the equipment from the Inspection Committee to be constituted by the Purchaser. In this connection, the supplier will submit bill for payment after satisfactory supply, installation & commissioning of the equipment.
  - (b) **Payment for imported items** will be made through Letter of Credit. 70% of the total LC amount will be released to the Supplier against delivery of the equipment and balance 30% will be released on receipt of final Job Completion Report from the Inspection Committee to be constituted by the Purchaser after satisfactory installation and commissioning of the equipment.
  - (c) **Payment of Indian Agency commission, if any,** will be made to the manufacturer's agent in the local currency for an amount in Indian rupees indicated in the relevant Price Schedule (as per prevailing rate of exchange ruling on the date of opening of commercial bid) and shall not be subject to further escalation / exchange variation. Payment shall be paid in Indian Rupees to the Indian Agent on proof of 100% payment to the Foreign Principal.
6. **M/s.....(selected vendor).....** will submit Bank Guarantee being 10% of the total value of the equipment towards satisfactory performance and services during warranty period in the prescribed format attached to this agreement as **Annexure-5** within 30 (thirty) days from the date of receipt of formal purchase order from the First Party after signing of the contract by all the parties to the agreement. The bank guarantee shall remain valid 60 (sixty) days beyond the warranty period of the equipment.

In the case of Bank Guarantee furnished from banks outside India (i.e. Foreign Banks), it should be authenticated and countersigned by any nationalized bank in India by way of back-to-back counter guarantee.

The second party shall also submit performance bank guarantee @ 2.5% of the equipment value (as per contract) during the post-warranty Annual Maintenance Contract in the prescribed format '**Annexure-6**'.
7. **M/s.....(selected vendor).....** shall have to deliver the above equipment **within** ..... **weeks** from the date of receipt of formal supply order.
8. **M/s.....(selected vendor).....** will have to enter into a contract for supply, transport to the site, installation and commissioning of the equipment.

9. On expiry of the 2 year's warranty period, **M/s .....(vendor).....** will provide **Annual maintenance contract** for the equipment from 3<sup>rd</sup> year to 10<sup>th</sup> year either **comprehensive or non-comprehensive**, which will be opted by the **First Party**, at the following frozen rates.

<b>Year</b>	<b>AMC charges (Rs.)</b>	<b>CMC charges (Rs.)</b>
3 <sup>rd</sup> year	as per rates offered by the selected vendor	as per rates offered by the selected vendor
4 <sup>th</sup> year		
5 <sup>th</sup> year		
6 <sup>th</sup> year		
7 <sup>th</sup> year		
8 <sup>th</sup> year		
9 <sup>th</sup> year		
10 <sup>th</sup> year		

The proforma for Annual Maintenance Contract will be as per **Annexure-4** attached to this agreement.

The AMC agreement shall include minimum of 4 preventive maintenance visits and any number of breakdown calls per year. The Service Engineer of the second party will attend all breakdown calls within 24 hours after receipt of intimation from the first party. Repairs of any required will be carried out within 72 hours by the second party.

During the period of comprehensive maintenance contract, the spare parts to be required will be supplied by **M/s.....(selected vendor)..... including batteries of UPS** free of cost. However under Non-comprehensive Maintenance contract, spare parts will be charged extra.

All software updates should be provided by the second party free of cost during the CMC period.

The supplier (the second party) guarantee towards supply of spare parts of the **equipment** for a period of 15 years.

**M/s.....(selected vendor).....** will depute factory trained Service Engineer in Guwahati for good after sale service of the equipment.

10. **M/s.....(selected vendor).....** assures for repairability, availability of spare parts for maintenance of the unit for the period upto 15<sup>th</sup> year.
11. Whereas the above equipment goes out of order it would be attended by **M/s ....(selected vendor)'s** service engineer **within 24 hours** from the date of receipt of information from BCCI. The supplier will remain responsible to the BCCI for proper functioning of the equipment regularly and effectively.
12. **M/s .....** must agree to compensate by extending the warranty period to the extent of twice the number of total days of delay on account of delayed delivery on the equipment upto a maximum period of 3 months for reasons which are directly under its control. If the delay in delivery exceeds 3 months, in addition to the above, penalty @ Rs..... per day will be imposed against the vendor which will be recovered from the EMD / security deposit / bank guarantee.
13. **M/s .....** agreed to provide any hardware and software components which have not been included / missed out from the scope of the tender notice and become necessary for successful commissioning of the system without additional financial liability on the part of Dr. B. Borooah Cancer Institute.
14. **M/s .....** is to arrange pre-despatch inspection of the equipment through 2 member team comprising one expert from Dr B Borooah Cancer Institute, Guwahati and one expert from Tata Memorial Hospital, Mumbai.

**SPECIFICATIONS OF SELECTED EQUIPMENTS**

**Technical specifications, make & model of the equipment as offered by the vendor and as per recommendation of the Technical Assessment Committee/ Purchase Committee / Finance Committee / Management Council**

*(to be included in details)*

**N.B. Other specifications as per Company's catalogues enclosed in the tender of the Second Party to the Agreement**



**CONTRACT FORM FOR ANNUAL COMPREHENSIVE MAINTENANCE CONTRACT**

Annul CM Contract No.....

Date.....

Between

.....  
-----  
(Address of Head of Hospital / Institute / medical College)

And

.....  
-----  
(Name & address of the supplier)

Ref: Contract No..... dated ..... (Contract No. & date of Contract for supply, installation, commissioning, handing over, trial run, training of operators & warranty of goods)

In continuation to the above referred contract

a) The Contract of Annual Comprehensive Maintenance is hereby concluded as under :-

1	2	3	4					5
Schedule No.	Brief Description of goods	Quantity (nos.)	Annual Comprehensive Maintenance Contract Cost for Each Unit year					Total Amount Comprehensive Maintenance Contract Cost for 8 years

Total value (in figure) .....(in words).....

- b) The CMC commence from the date of expiry of all obligations under Warranty i.e. from ..... (date of expiry of Warranty) and will expiry on ..... (date of expiry of CMC).
- c) The cost of Annual Comprehensive Maintenance Contract (CMC) which includes preventive maintenance, labour and spares, after satisfactory completion of warranty period may be quoted for next .... years as contained in the above referred contract on yearly basis for complete equipment.
- d) There will be 95% uptime warranty during CMC period on 24 (hrs) x 7(days) x 365 (days) basis, with penalty, to extend CMC period by double the downtime period.
- e) During CMC period, the supplier shall visit at each consignee's site for preventive maintenance including testing and calibration as per the manufacturer's service / technical / operational manual. The supplier shall visit each consignee site as recommended in the manufacturer's manual, but at least once in 6 months commencing from the date of the successful completion of warranty period for preventive maintenance of the goods.

- f) All software updates should be provided free of cost during CMC.
- g) The bank guarantee valid till ..... [(fill the date) 2 months after expiry of entire CMC period] for an amount of Rs..... [(fill amount) equivalent to 2.5% of the cost of the equipment as per contract] shall be furnished in the prescribed format given in **Schedule-C** of the Tender Enquiry document, along with the signed copy of annual CMC within a period of 21 (twenty one) days of issue of Annual CMC failing which the proceeds of Performance Security shall be payable to the Purchaser.
- h) If there is any lapse in the performance of the CMC as per contract, the proceeds AMC / CMC bank guarantee for an amount of Rs..... (equivalent to 2.5% of the cost of the equipment as per contract ) shall be payable to the consignee.
- i) Payment terms : The payment of Annual CMC will be made against the bills raised to the consignee by the supplier on six months basis after satisfactory completion of said period, duly certified by the Head of the user department. The payment will be made in Indian rupees.
- j) Paying authority :..... (name of the consignee  
i.e. Hospital / Institute /  
Medical College's authorized  
official)

-----  
(signature, name and address  
of Hospital / Institute / Medical College's authorized official  
For and on behalf of .....

Received and accepted this contract

.....  
(Signature, name and address of the suppliers's executive  
Duly authorized to sign on behalf of the supplier)  
For and on behalf of .....

(Name and address of the supplier)  
.....  
(Seal of the supplier)  
Date : .....  
Place : .....

**Proforma for Bank Guarantee for 10%**

To  
The Director  
Dr B Borooah Cancer Institute  
(Regional Institute for Treatment & Research)  
A.K. Azad Road, Gopinath Nagar  
Guwahati-781016

The deed of guarantee made this day of \_\_\_\_\_ between (name of Bank) \_\_\_\_\_ (hereinafter called the “Ban k”) of the one part, and the \_\_\_\_\_ (the Purchaser) (hereinafter called “the Purchaser”) of the other part.

Whereas \_\_\_\_\_ (the Purchaser) has awarded the Contract bearing No. \_\_\_\_\_ dated \_\_\_\_\_ for \_\_\_\_\_ (Description of Goods) (hereinafter called the contract) to \_\_\_\_\_ (Name of the supplier) (hereinafter called the Supplier).

In accordance with the provisions and Terms & Conditions of the Contract to provide for payment amounting to Rs. \_\_\_\_\_ (name and address of the Contractor) (hereinafter called “the Contractor”) shall deposit with the \_\_\_\_\_ (The Purchaser) a bank guarantee to guaranty his proper and faithful performance under the said Clause of the Contract in an equivalent amount of 10% of \_\_\_\_\_ (amount of guarantee in figures and words).

We, the \_\_\_\_\_ - (Bank), as instructed by the Supplier, agree unconditionally and irrevocably to guarantee as primary obligator and not as surety merely, the payment to the \_\_\_\_\_ (name of the Purchaser) on his first demand through Demand draft payable at Guwahati without objection / demur on our part.

We further agree that no change or addition to or other modification of the terms of the Contract to be performed there under or of any of the Contract documents which may be made between \_\_\_\_\_ (name of the Purchaser) and the Supplier, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

The guarantee remains valid in full effect from the date of the advance payment received by the supplier under the contract until \_\_\_\_\_ (date).

Yours truly

Signature & Seal :  
Name of Bank / Financial Institution :  
Address :  
Date :

**Bank Guarantee Form for Performance Security / CMC Security**

To  
The Director  
Dr B Borooah Cancer Institute  
(Regional Institute for Treatment & Research)  
A.K. Azad Road, Gopinath Nagar  
Guwahati-781016

WHEREAS \_\_\_\_\_ -- (Name and address of the supplier)  
(Hereinafter called “the supplier”) has undertaken, in pursuance of contract  
No..... dated..... To supply (description of goods and  
services) (hereinafter called “the contract”).

AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish  
you with a bank guarantee by a scheduled nationalized commercial bank recognized by you for the  
sum specified therein as security for compliance with its obligations in accordance with the  
contract;

AND WHEREAS we have agreed to give the supplier such a bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of  
the supplier, up to a total of ..... (Amount of the  
guarantee in words and figures), and we undertake to pay you, upon your first written demand  
declaring the supplier to be in default under the contract and without cavil or argument, any sum or  
sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to  
show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the supplier before  
presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to  
be performed there under or of any of the contract documents which may be made between you  
and the supplier shall in any way release us from any liability under this guarantee and we hereby  
waive notice of any such change, addition or modification.

This guarantee shall be valid upto and including the \_\_\_\_\_ day of \_\_\_\_\_ 20...

(Signature with date of the authorized officer  
of the bank)

.....  
(name and designation of the officer)

.....  
Seal, name & address of the Bank and address of the Branch

**SCHEDULE – ‘C’**

**Proforma for Bank Guarantee for 10%**

To  
The Director  
Dr B Borooah Cancer Institute  
(Regional Institute for Treatment & Research)  
A.K. Azad Road, Gopinath Nagar  
Guwahati-781016

The deed of guarantee made this day of \_\_\_\_\_ between (name of Bank) \_\_\_\_\_ (hereinafter called the “Ban k”) of the one part, and the \_\_\_\_\_ (the Purchaser) (hereinafter called “the Purchaser”) of the other part.

Whereas \_\_\_\_\_ (the Purchaser) has awarded the Contract bearing No. \_\_\_\_\_ dated \_\_\_\_\_ for \_\_\_\_\_ (Description of Goods) (hereinafter called the contract) to \_\_\_\_\_ (Name of the supplier) (hereinafter called the Supplier).

In accordance with the provisions and Terms & Conditions of the Contract to provide for payment amounting to Rs. \_\_\_\_\_ (name and address of the Contractor) (hereinafter called “the Contractor”) shall deposit with the \_\_\_\_\_ (The Purchaser) a bank guarantee to guaranty his proper and faithful performance under the said Clause of the Contract in an equivalent amount of 10% of \_\_\_\_\_ (amount of guarantee in figures and words).

We, the \_\_\_\_\_ - (Bank), as instructed by the Supplier, agree unconditionally and irrevocably to guarantee as primary obligator and not as surety merely, the payment to the \_\_\_\_\_ (name of the Purchaser) on his first demand through Demand draft payable at Guwahati without objection / demur on our part.

We further agree that no change or addition to or other modification of the terms of the Contract to be performed there under or of any of the Contract documents which may be made between \_\_\_\_\_ (name of the Purchaser) and the Supplier, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

The guarantee remains valid in full effect from the date of the advance payment received by the supplier under the contract until \_\_\_\_\_ (date).

Yours truly

Signature & Seal :  
Name of Bank / Financial Institution :  
Address :  
Date :

**SCHEDULE – ‘D’**

**Bank Guarantee Form for Performance Security / CMC Security**

To  
The Director  
Dr B Borooah Cancer Institute  
(Regional Institute for Treatment & Research)  
A.K. Azad Road, Gopinath Nagar  
Guwahati-781016

WHEREAS \_\_\_\_\_ -- (Name and address of the supplier)  
(Hereinafter called “the supplier”) has undertaken, in pursuance of contract  
No..... dated..... To supply (description of goods and  
services) (hereinafter called “the contract”).

AND WHEREAS it has been stipulated by you in the said contract that the supplier shall furnish  
you with a bank guarantee by a scheduled nationalized commercial bank recognized by you for the  
sum specified therein as security for compliance with its obligations in accordance with the  
contract;

AND WHEREAS we have agreed to give the supplier such a bank guarantee;

NOW THEREFORE we hereby affirm that we are guarantors and responsible to you, on behalf of  
the supplier, up to a total of ..... (Amount of the  
guarantee in words and figures), and we undertake to pay you, upon your first written demand  
declaring the supplier to be in default under the contract and without cavil or argument, any sum or  
sums within the limits of (amount of guarantee) as aforesaid, without your needing to prove or to  
show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the supplier before  
presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to  
be performed there under or of any of the contract documents which may be made between you  
and the supplier shall in any way release us from any liability under this guarantee and we hereby  
waive notice of any such change, addition or modification.

This guarantee shall be valid upto and including the \_\_\_\_\_ day of \_\_\_\_\_ 20..

(Signature with date of the authorized officer  
of the bank)

.....  
(name and designation of the officer)

.....  
.....  
Seal, name & address of the Bank and address of the Branch

**SCHEDULE – ‘E’**

**CONTRACT FORM FOR ANNUAL COMPREHENSIVE MAINTENANCE CONTRACT**

Annul CM Contract No.....

Date.....

Between

.....  
-----

(Address of Head of Hospital / Institute / medical College)

And

.....  
-----

(Name & address of the supplier)

Ref: Contract No..... dated ..... (Contract No. & date of Contract for supply, installation, commissioning, handing over, trial run, training of operators & warranty of goods)

In continuation to the above referred contract

a) The Contract of Annual Comprehensive Maintenance is hereby concluded as under :-

1	2	3	4					5
Schedule No.	Brief Description of goods	Quantity (nos.)	Annual Comprehensive Maintenance Contract Cost for Each Unit year					Total Amount Comprehensive Maintenance Contract Cost for 8 years

Total value (in figure) .....(in words).....

- b) The CMC commence from the date of expiry of all obligations under Warranty i.e. from ..... (date of expiry of Warranty) and will expiry on ..... (date of expiry of CMC).
- c) The cost of Annual Comprehensive Maintenance Contract (CMC) which includes preventive maintenance, labour and spares, after satisfactory completion of warranty period may be quoted for next .... years as contained in the above referred contract on yearly basis for complete equipment.
- d) There will be 95% uptime warranty during CMC period on 24 (hrs) x 7(days) x 365 (days) basis, with penalty, to extend CMC period by double the downtime period.
- e) During CMC period, the supplier shall visit at each consignee’s site for preventive maintenance including testing and calibration as per the manufacturer’s service / technical / operational manual. The supplier shall visit each consignee site as recommended in the manufacturer’s manual, but at least once in 6 months commencing from the date of the successful completion of warranty period for preventive maintenance of the goods.

- f) All software updates should be provided free of cost during CMC.
- g) The bank guarantee valid till ..... [(fill the date) 2 months after expiry of entire CMC period] for an amount of Rs..... [(fill amount) equivalent to 2.5% of the cost of the equipment as per contract] shall be furnished in the prescribed format given in **Schedule-C** of the Tender Enquiry document, along with the signed copy of annual CMC within a period of 21 (twenty one) days of issue of Annual CMC failing which the proceeds of Performance Security shall be payable to the Purchaser.
- h) If there is any lapse in the performance of the CMC as per contract, the proceeds AMC / CMC bank guarantee for an amount of Rs..... (equivalent to 2.5% of the cost of the equipment as per contract ) shall be payable to the consignee.
- i) Payment terms : The payment of Annual CMC will be made against the bills raised to the consignee by the supplier on six months basis after satisfactory completion of said period, duly certified by the Head of the user department. The payment will be made in Indian rupees.
- j) Paying authority :..... (name of the consignee  
i.e. Hospital / Institute /  
Medical College's authorized  
official)

-----  
(signature, name and address  
of Hospital / Institute / Medical College's authorized official  
For and on behalf of .....

Received and accepted this contract

.....  
(Signature, name and address of the suppliers's executive  
Duly authorized to sign on behalf of the supplier)  
For and on behalf of .....

(Name and address of the supplier)

.....  
(Seal of the supplier)

Date : .....

Place : .....



**SCHEDULE – ‘F’**

**PARTICULARS OF THE TENDERER**

1. Name of the tenderer :
2. Establishment type :  
(Company / firm / Dealer / Stockist / Contractor / Supplier )
3. Year of establishment :
4. Address of the Registered Office :
5. PAN Number :  
(photocopy of PAN card to be attached)
6. Branches in India :
7. Nature of business :
8. Experience in the relevant field :
9. Total Manpower :
10. Technical Staff all over India :  
(with name , designation & contact nos.)
11. Technical Staff or Engineers based at Guwahati :  
(with name , designation & contact nos.)
12. Service Engineers posted in the North-East India :  
(with name, designation, qualification & contact nos.)

Signature and seal of the Tenderer

**SCHEDULE – ‘G’**

**PROFORMA FOR PERFORMANCE STATEMENT**

(for the period of last three years)

Tender Reference : .....

Date of Opening : .....

Time : .....

Name and address of the tenderer : .....

Name and address of the manufacturer : .....

Order placed by (full address of purchaser)	Order number and date	Description and quantity of ordered items and services	Value of order (Rs.)	Date of completion of contract		Remarks indicating reasons for delay if any	Have the goods been functioning satisfactorily (attach documentary proof)**
				As per contract	Actual		
1	2	3	4	5	6	7	8

Signature and seal of the Tenderer

\*\* The documentary proof will be a certificate from the consignee / end user with cross-reference of order no. and date in the certificate along with a notarized certification authenticating the correctness of the information furnished. If at any time, information furnished is proved to be false or incorrect, the earnest money furnished will be forfeited.

\*In respect of above certificate from chartered Account can be produced with all the requisite details.

**SCHEDULE - 'H'**

**MANUFACTURER'S AUTHORIZATION FORM**

To

.....  
.....  
(name and address of the purchaser)

Dear Sirs,

Ref. Your Tender Enquiry document No..... dated.....

We, ..... who are proven and reputable manufacturers of ..... (name and description of the goods offered in the tender) having factories at ....., hereby authorize Messrs.....(name and address of the agent) to submit a tender, process the same further and enter into a contract with you against your requirement as contained in the above referred Tender Enquiry Documents for the above goods manufactured by us.

We also hereby extend our full warranty and AMC / CMC as applicable as per terms & conditions of the tender documents, read with modification, if any, in the special conditions of contract for the goods and services offered for supply by the above firm against this tender enquiry document.

Yours faithfully,

-----  
-----

(signature with date, name and designation)

For and on behalf of Messrs.....

(name & address of the manufacturers)

Note :

- i. This letter of authorization should be on the letter head of the manufacturing firm and should be signed by a person competent and having the power of attorney to legally bind the manufacturer.
- ii. The original letter may be sent.



# Dr. B. Borooah Cancer Institute

*(Regional Institute for Cancer Treatment & Research*  
**Guwahati-781016**

**Subject .. Purchase of Advanced High Energy Linear Accelerator (LA) System  
at Dr B Borooah Cancer Institute, Guwahati**

**Tender Notice .. No. BBCI/Misc-27/RPP-IV/NIT/ 2709 / 2016 dtd. 04.11.2016**

**Tender documents issued as follows :**

**(a) Detail Tender Document (Page : 1 to 44 )**

**Issued by –**



**Director**

Dr B Borooah Cancer Institute  
Guwahati-781016

***Received the Tender papers  
From the office of the Director,  
Dr B Borooah Cancer Institute***

on payment of non-refundable

***Tender Fee amounting to Rs.20,000/-***

***(Rupees twenty thousand only) in cash /***

***Vide Banker's Cheque / Bank Draft No.....***

***dt..... (Bank : ..... )***

**TENDERER**

(Name & Signature)

Date :