Government of Tripura
Directorate of Health Services

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No.F.6(17)-CH/MS/GEN/2014 Dated, Agartala, the June,2014.

MEMO

The following additions/ deletions are hereby made in the “Terms & conditions of Notice Inviting Expression of Interest”, “Specification of Equipments (Annexure-II)” for procurement, installation and commissioning of Equipments for the upcoming B+G+6 building of Regional Cancer Centre published in website www.health.tripura.gov.in and www.tenders.gov.in. vide this office No.F.6(17)-CH/MS/GEN/2014 dated 15.05.2015 pursuant to the decision of pre-bid meeting of Body Members held on 30.5.2015 at 3.00 PM in Conference Hall No.2, Civil Secretariat, Capital Complex, Agartala under the Chairmanship of Secretary, Health & Family Welfare Department, Govt. of Tripura. In the Pre-bid meeting of Notice Inviting Expression of Interest representatives of nine reputed agencies had participated. Though short listing could not be done but technical specifications of each equipment were discussed thoroughly. As per clause 12.1 of Terms & Conditions of Notice Inviting EOI the State Government has rescheduled the last date of Tender submission in Two bids (Technical & Financial) on 29.6.2015 at 5 PM to the office of the Medical Superintendent, Regional Cancer Centre, 79 Tilla, P.O. Kunjaban, Agartala, Tripura (West). PIN- 799006. Opening of Bids on 30.6.2015 at 11 AM in Conference Hall No.3, Civil Secretariat, Govt. of Tripura, Agartala. A Committee is constituted by the Government for this purpose. Representatives of reputed agencies are requested to remain present during this event with all necessary documents.
1. In the Terms & Conditions of Notice Inviting Expression of Interest
The words “with Quality Assurance & Dosimetry equipments” shall be added after the word “TBI” against Sl.No.2 and the words “with Quality Assurance & dosimetry equipments” after the word “Simulator” against Sl.No.4 of the list of equipments and quantity.
Amendments on General Terms & Conditions:-
1.4. During warranty and CMC period cost of consumables, radioactive sources and radiopharmaceuticals are to be included in the total cost of the equipment.
1.6. CMC should be quoted on fixed amount rather than percentage.
1.7. Items not under warranty should be clearly spelt out.
1.8. Training of staff is to be included.
1.9. Any software up-gradation will be provided free of cost by the agency.
1.12. PBG will be refunded after 10 years.
1.12. Payment terms
15% advance against Advance Bank Guaranty
65% against supply.
10% on installation
10% on Commissioning, training and handing over of equipments.
1.13. Buy-back cause will be there for both major & minor equipment as per their life cycles.
1.14. Hospital furnitures and workstations are to be well furnished by the agency according to the need of end users.
4.10. The bidder should on a single point responsibility complete sourcing, supply, installation and
training the end user and providing warranty services during the defect liability period for all the equipments required for the hospital. They should have executed similar works as per Point No.4.8.

2. In the specification for Dual Energy Linear Accelerator (Linac) (2)
The word “/automatic –please specify” shall be inserted after the word ‘position’ at point (i).
The word “and MLC matching (model)” shall be added after the word “Matching” at point
(o).
The word “above 2000MU/minute” shall be inserted in place of “to 2400MU/minute” in the last
line at point (u).
2.1. In Point No.1.2 the words “5MU to 600MU” shall be inserted in place of “100 to 600 MU” and the word “minimum” be deleted which written after ‘Dose rate: The’.

2.2.In Point No.1.3 the words “above 2000MU” shall be inserted in place of “2400MU”.
2.3. In Point 1.6.4. the words “any pair of jaws” shall be inserted in place of ‘All jaws’.
2.4. In Point 1.9 the words “/ motorized wedge” shall be inserted after ‘(Dynamic wedge)’.
2.5. In point No.1.11 the words “please specify” shall be inserted after the word ‘Arc Therapy’.

2.6. In Point 2.1 the words “4 MeV to 22 MeV any five” shall be inserted in place of ‘ 6 MeV to 22 MeV’.

The following table shall be substituted in Point No2.1

SIN Energy (Me V) Depth of lonization Values
DSO% D 80
(cm)
01 6 1.90 ± 0.1 cm

02 9 2.95 ± 0.1 cm

03 12 4.l5±0.1 cm

04 15 5.20 ± 0.1cm

05 18 6.10 ± 0.1cm

06 22 6.S0±0.1cm

2.7. In Point 2.2 the words “Please specify” shall be inserted after the words ‘25 MU/min’ and the words “of not less than” shall be deleted and the words “for one or two energy” shall be inserted after the word ‘preferred’.
2.8. In Point 2.2.1 the figure “(4x4cm2) is deleted.
2.9. In point No.2.6 the words “please specify and write limitations” shall be inserted after the word ‘Therapy’ in the title.
2.10. The point No.2.7.4 deleted.
2.11. In Point No.3.8 the words “30 cm” shall be inserted in place of ‘30 em’
2.12. In Point No.4.2 the words “(Indexed Carbon Fibre Table Top)” shall be inserted in
place of ‘(tennis racket or Mylar)’.
2.13. In Point No.6.2 the words “5% Transmission 5 HVL or please specify” shall be
inserted after the word ‘layer’.
2.14. In Point No.6.7 the words “or Green” shall be inserted after the word ‘Blue’”.
2.15. The following table shall be substituted in Point No.7.

7. Dynamic Multileaf Collimator 5mm at ISD Centre
Minimum number of leaves in 120 or more.

Performance Specifications
MLC leaf end position accuracy at all leaf positions relative to the collimator axis1
MLC leaf end position reproducibility at all leaf positions relative to the collimator MLC leaf side position accuracy at all leaf positions relative to the collimator axis1 MLC leaf side position reproducibility at all leaf positions relative to the collimator Minimum number of leaves
Central high resolution leaf width (central 20 cm leaf width projected at isocenter) Outboard leaf width (outer 20 crn, leaf width projected at isocenter)
Maximum static field size
Maximum static aperture field size
Maximum IMRT field size
Maximum leaf retract position
Maximum leaf extend position
Maximum displacement between adjacent leaf ends at a single carriage position Average leaf transmission2
Maximum interleaf leakage2
Maximum carriage speed
Maximum leaf speed2
Relative leaf accuracy, leaf end to leaf end

Minimum static leaf gap (end to end)
Minimum dynamic leaf gap (end to end)

Please specify all the details of your machine
2.16. In the table at Point No.8.1 the column ‘Specification’ shall be deleted and the words
“Please provide all the specifications in detail” shall be added against each item of Performance Specifications.
2.17. In the Point No. 10 titled ‘Image Guided Radiotherapy (IGRT) System’ the words
“latest amorphous silicon technology” shall be added after the word ‘System’.
2.18. The column ‘Specification’ shall be deleted in the table under Point No.10.1 and the
words “Please provide all the specifications in detail” shall be added against each item of Performance Specifications.

2.19. In the Point No. 10.2 titled ‘kV CBCT Specifications’ the words “Please specify in
details” shall be added after the word ‘Specifications’. The table at Point No.10.2 is deleted.
2.20. In the table at Point No.10.3 the column ‘Specification’ shall be deleted and the
words “Please provide all the specifications in detail” shall be added against each item of Descriptive Specifications.
2.21. In the Treatment Planning System (TPS) – for both dual energy and single energy
Linacs (total 2 Linacs)
2.22. The following shall be inserted in place of ‘02 (Two) sets of computers work station’ in
4th line under Point No.11.
“Mandatory – 6 workstations (2 contouring 2 Planning 2 Review (offline)”

2.23. The letters “/ RT” shall be inserted after the letters ‘DICOM’ in bullet No.8 at Point
No.11.

2.24. The word “mandatory” shall be inserted after the word ‘software’ in bullet No.12 at
Point No.11.
2.25. The following lines shall be added below the line ‘Virtual simulation’ in Point No.11.
“All available Licensees should quote for Latest models with hardware & functional switches”
“Please specify your calculation algorithm”
2.26. The letters “/PET-CT” shall be inserted after the letters ‘US’ in Bullet No.5 under the
heading ‘Description’ in Point No.11.
3. In the Specifications for Single Energy Linear Accelerator with Beam Matching with the High Energy Linac.

3.1. The words “and MLC matching model” shall be inserted after the word ‘Linac’ in the heading ‘Specifications for Single Energy Linear Accelerator with Beam Matching with the High Energy Linac’.
3.2. The words “7 years” shall be inserted in place of ‘5 years’ in the first para.
3.3. The line “Unsealed/sealed Ionisation chamber” shall be inserted in place of ‘Sealed Ionisation chamber’ in bullet No.5 below the heading ‘The machine MUST have the latest technology such as’.
3.4. The word “/ motorized” shall be inserted after the word ‘virtual’ in para heading ‘Wedge systems’.
3.5. The heading ‘Advance Dynamic Procedures’ shall be substituted by “Advanced Dynamic Procedure should include treatment with IMRT – Please specify”
3.6.The para following the heading ‘Advance Dynamic Procedures’ is substituted as follows under the heading “Advanced Dynamic Procedure should include treatment with IMRT – Please specify”
“Should include Step & Shoot and Dynamic IMRT (Sliding Window) treatment”.
“Automatic delivery of Multiple Co-planner fields in sequence should be possible in the Linear Accelerator”.
“Accessories for Low energy Linac – please specify details”.
3.7. The word “/manual/” shall be inserted after the word ‘Retractable’ in first para under the heading ‘Digital Portal Imaging’.
3.8. The first line of ‘Warranty’ is deleted and warranty clauses mentioned in Item No.1.4 of General Terms & Conditions for all items will be applicable.

3.9 Please read “Two Physicists and Four radiation Oncologists” in stead of ‘a Physicist and a Radiation Oncologist’ in Item No.6 of General Conditions.

4. In the HDR Brachytherapy specifications
4.1. Please read “Minimum 18 channels & above at a time and functional (activated)” in place of ‘(min 24 channels’.
The words “one set each” shall be inserted after the word ‘Applicator’ in the third line of the para. The word “/ separate” shall be inserted after the words ‘in the same’ and the words “(separate and individual TPS for Brachy is not acceptable)” in the same para shall be deleted.

4.2. The first para under the heading “CMC/AMC” shall be substituted by “As mentioned in General Terms & Conditions”.

4.3. The following new items are added under the heading “GENERAL CONDITIONS & REQUIREMENTS”.
4.3.1. Dedicated USG Machine for Guided Brachytherapy.
4.3.2. Transportation Couch.
4.3.3. Brachytherapy Couch with Integrated C-Arm.
4.3.4. Template 1(one) set for each site.
4.3.5. Needle 2(two) sets (Permanent) is required.
4.3.6. Permanent applicator needed.
4.3.7. Brachy TPS & OIS should be separate.
4.3.8. Applicator should be MRI/CT compatible.

5. In specification of CT Simulator
5.1. Please read “650 or more” in place of “20000 with minimum of 800” in 4th line of Point No.4.
5.2. The words “Indexed Couch similar to Linear Accelerator Type” shall be inserted after the word ‘Provided’ in Point No.5(iii).
5.3. The Point No.7(x) is deleted.
5.4. Please read “24 GB/latest model with highest GB” in place of “16 GB” in Point No.9(2)(a).
5.5. A new point No.xv will be inserted in the Point 4 of ‘CONTOURING and MULTIMODALITY INTEGRATION’ with the words “Single head pressure injectors with 50 sets per year for five years”.
5.6. A new para with the words “Depending upon the Linear Accelerator Model 4D Motion Management Hardware & Software should be quoted as optional” shall be added under the Item ‘10. ACCESSORIES’ after the words ‘Laser Films’.

5.7. The point “12 CMC” shall be replaced by warranty clauses mentioned in Item No.1.4 of General Terms & Conditions for all items.
6. In Dosimetry Equipments
6.1. The words “60x60x40cm” shall be replaced by the words “40x40x40cm” after the words ‘range of’ in third line.
6.2. The words “1mm” shall be replaced by the words “less than 0.2mm” ” in the fourth line after the words ‘resolution of’.

6.3. The word “optional” shall be inserted after the word ‘tank shift’ in the 6th line.
6.4. The word “optional” shall be inserted after the word ‘surface detection’ in the 8th line.
6.5. The word “and” will be replaced the word “of” in the 14th line.
6.6. A new line with the words “Positional accuracy and Reproducibility ± 0.1mm” shall be inserted after 14th line.
6.7. The words “Flow Rates ≥ 8 litres per minute” shall be added after the words “from the RFA” under heading “RFA Reservoir”.
6.8. The words “0.125cc” after the words ‘2 Nos.’ under the heading ‘Detectors with RFA’ shall be replaced by the words“ 0.1 to 0.1cc”.
6.9. Two new lines with the words “Please provide Linear Detector Array will resolution 5-10 mm” and “Please provide holders and adaptors for all commercially available chambers and dios” will be added under the same heading after the words “plate to be provided”.
6.10. The words “0.01fA” after the word “less than” shall be replaced by the word “10 fA” in the 5th
line of “Electrometer”.
6.11. The words “with ≥ 50 Volt increment” shall be added after the words “minimum ± 400V” in
6th line of Electrometer.
6.12. The figure “1%” shall be inserted in place of “0.1%” in the 7th line.
6.13. The figures “0.5%” shall be inserted in place of “0.25%” in the 9th line.
6.14. A new line with the words “connector Type – TNC/BNC compatible with existing system in
the Department” shall be added after the words “(no more than 1kg)”.
6.15. Please read “4 Nos. 30 meters of Triaxial dosimetry” in stead of “2 nos 20 meters of
extension” in the words “Data logging capability”.

6.16. A new line with the words “High precision magnetized spirit level – Dimension, Sensitivity,
Level axis, Horizontal, Vertical, inclined – Please specify” shall be added after the words “Chambers to be provided”.
6.17. A new line with the words “Connector Type – TNC/BNC compatible with existing system in
the Department” will be added after the words “measurements to be provided”.
6.18. The word “optional”shall be inserted after the words “Automatic water level detection”.
6.19. A new line shall be inserted with the words “Please provide holders and adaptors for all
commercially available chambers and dios” after the words “universal chamber holder” under the heading ID Scanner.
6.20. A new line shall be inserted with the words “Please provide holders and adaptors for all
commercially available chambers and dios” after the words “plate chamber to be provided” under the heading RW3 Slab Phantom.
6.21. The words “(range 1 micro severt to 500 mili severt” shall be added after the words
“certificate to be provided” in heading RW3 Slab Phantom.
6.22. The words under the heading “Patient Specific QA for 3DCRT/IMRT/RapidArc/SRT/SRS” is
substituted with the followings:
A. Ionisation chamber based Advanced dosimetry verification system for IMRT/VMAT/FFF
Specs
Detector Type Ion Chamber
Quantity > 600
Spacing >0.5cm
Resolution ≤1mGy
Design Specify
Reproducibility ≤±0.5%
Sampling Time ≥50ms
Dead time Zero

Directional Depandance Specify
Measured quantities Dose, Dose rate
Measurment Range Specify
PC Interface Specify
Array Detector Volume Specify
Active Area > 20cmx20cm

Geometry Specify
Calibration Method Calibration without disassembly

Calibration certificates Calibration validity Specify

Phantom Geometry Cube/Cylindrical
Material Specify
Dimension Specify
Weight (Kg) Specify
Positioning Accessories Specify
Calibration Phantom and IC adapters Specify
Cables Data Cable Length ≥30m

Gantry Angle Sensor Specify

Compatibility DICOM RT Plan, RTDose DICOM RTPlan, RTDose
RTStructure RTOG RTStructure RTOG

Analysis Software No. of licenses Specify
Gamma index Gamma index
DTA DTA
Dose Deviation Dose Deviation

3D dose analysis on patient anatomy 3D dose analysis on CT data

DVH computation for RTStrucures

DVH computation for
RTStrucures

Report (standard/customised) Report (standard/customised)

Hardware OS Specify
Processor Specify
Memory Specify
Hard Disk Specify
Monitor Specify
Graphics Specify
Keboard Specify
Mouse Specify
Ports Specify
Other Requirments Specify
UPS Specify (min. 30min backup)

Machine QA option Specify

Storage Cabinet/Trolley Specify

Service and support Loaner equipment Specify
AMC/CMC Specify
Installation and Training Specify

No. of systems in India
and worldwide Specify

B. Semiconductor Diode based advanced dosimetry verification system for IMRT/VMAT/FFF Specs
Detector Type Diode
Quantity > 600
Spacing >0.5cm
Resolution ≤1mGy
Design Specify
Reproducibility ≤±0.5%
Sampling Time ≥50ms
Dead time Zero
Directional Dependence Specify
Measured quantities Dose, Dose rate
Measurement Range Specify
PC Interface Specify

Array Detector Volume Specify
Active Area > 20cmx20cm
Geometry Specify
Calibration Method Calibration without disassembly

Calibration certificates Calibration validity Specify

Phantom Geometry Cube/Cylindrical
Material Specify
Dimension Specify
Weight (Kg) Specify
Positioning Accessories Specify
Calibration Phantom and IC adapters Specify

Cables Data Cable Length ≥30m

Gantry Angle Sensor Specify

Compatibility DICOM RT Plan, RTDose DICOM RTPlan, RTDose
RTStructure RTOG RTStructure RTOG

Analysis Software No. of licenses Specify
Gamma index Gamma index
DTA DTA
Dose Deviation Dose Deviation

3D dose analysis on patient anatomy 3D dose analysis on CT data

DVH computation for RTStrucures

DVH computation for
RTStrucures

Report (standard/customised) Report (standard/customised)

Hardware OS Specify
Processor Specify
Memory Specify
Hard Disk Specify
Monitor Specify
Graphics Specify
Keboard Specify
Mouse Specify
Ports Specify
Other Requirements Specify
UPS Specify (min. 30min backup)

Machine QA option Specify

Storage Cabinet/Trolley Specify

Service and support Loaner equipment Specify
AMC/CMC Specify
Installation and Training Specify

No. of systems in India
and worldwide Specify

7. In the Specification for Immobilization & Mould Room items
7.1. Please read “Complete set (2) of Base plates & High Pressure Laminates with all Head Supports” in place of first 8 items of “PATIENTS IMMOBILISATION SYSTEM”
7.2. The word “CIVCO” shall be deleted from the last item of “PATIENTS IMMOBILISATION SYSTEM”.
8. In Sl. No.5: MRI Machine
8.1. The words “Noiseless MRI system is preferable” shall be added after the sentence “Noise level inside the examination room should be minimum as possible. Specify db level” in item No.1 MAGNET.
8.2. The word “one” shall be replaced by word “two” in Item No.8 WORK STATION.
8.3. The Item No.19 ‘Warranty’ shall be replaced by warranty clauses mentioned in Item No.1.4 of General Terms & Conditions for all items.
8.4. The Item No.20 ‘Service’ shall be replaced by warranty clauses mentioned in Item No.1.4 of General Terms & Conditions for all items. The words “(Third Party Items also)” shall be added after the words “including ACs, etc.” in the same para.
8.5. A new Item with Sl.No.23 shall be inserted after the Item No.22 with the words “ MR compatible Trolley and Wheel Chair are to be provided”.
9. In Sl. No.6: CT Machine

9.1. The figure “15” shall be substituted by the figure “30” in Item No.16 Accessories.
9.2. The words “ 7 days” in the Item No.17 TRAINING shall be replaced by the words “4 weeks”.

9.3. The words “AERB Type approved” shall be inserted after the words “FDA approved” in Item No.18. 9.4. One new item with the words “Quality Assurance Certificates, room layout plan are to be approved from AERB” shall be inserted as Item No.19.
10. In Sl. No.7: High end USG Machine
10.1. The words “and liver” shall be added after the words “Breast on Linear probe” in Item No.23.
10.2. The words “Probes must have compatibilities of Elastrography Imaging of Liver” shall be
added after the words “Harmonic Imaging” in Item No. 26(a).
10.3. The words “1 year” shall be replaced by the words “3 years” in Item No.27 ‘Warranty’.
10.4. The words “Nine years” shall be replaced by the words “7(seven) years” in Item No.278
‘SERVICE’.
In Sl. No. 8: Digital X-Ray
10.5. The words “single detector” shall be replaced by the word “dual detector” in 3rd row under the
heading ‘Digital Radiography Ceiling Suspended Dual Detector System Specification’.
10.6. The words “65KW” shall be replaced by the words “64KW” in Item No.1b Generator.
10.7. The word “minimum” shall be added before the words ‘80KV’ in the Item No.1d Generator.
10.8. The words “Quality Assurance Certificate” shall be added after the words “FDA certified” in
Item No. 12c under the ‘Other Terms and Conditions’.
10.9. The words “or more or please specify” shall be added after the words “40cmx40cm” in Item
No.8e Flat Panel Detector.
10.10. The words “Table Stand – Please specify” shall be added after the words “at least 13:1” in
Item No.8j Panel Detector.
10.11. The words “Generator and Tube” shall be replaced by the words “Two components – Please
specify type of detectors” in Item No.12b Other Terms & Conditions.
10.12. The words “1 year” shall be replaced by the words “5 years” in Item No.13 ‘Warranty’.
10.13. The words “Nine years” shall be replaced by the words “5 years” in Item No.14 “SERVICE’.
11. In Sl. No.9: DIGITAL MAMMOGRAPHY
11.1. The words “1 year” shall be replaced by the words “5 years” in Item No.17 ‘Warranty’.
11.2. The words “Nine years” shall be replaced by the words “5 years” in Item No.18 ‘SERVICE’.
12. In Sl.No.10: PET-CT Machine (Nuclear Medicine Equipment)
12.1. The words “number of detector rings: 18 or more” shall be deleted in Item No.2 Detector
Assembly.
12.2. The words “200mm or more” shall be replaced by the words “150mm or more” after the
words “Axial field of view” in Item No.2 Detector Assembly.
12.3. The words “12cps/kBq” shall be replaced by the words “8cps/kBq” after the words “System
sensitivity” in Item No.2 Detector Assembly.
12.4. The words “Flat couch and wall mounted laser – fixed / moving – please specify” shall be
added after the words “Carbon fiber table top” in Item No.7 (2) Patient Table.
12.5. The words “0.6mm” shall be replaced by the words “0.625mm” after the words “Minimum
slice thickness should be” in Item No.7(3) Spiral CT.
12.6. The words “10 minutes backup” shall be replaced by the words “30 minutes backup” in Item
No.9 ‘Accessories’.
12.7. The para “Hardware: Minimum configuration
• HP Z800 Workstation with Intel x5650 Six Core Xeon 2.66 GHz CPU with 8MB Shared L2
Cache/ 1333 MHz Dual FSB
• Minimum 500 GB Hard Disks for Image Data.
• 2 x 19” Monitors.
• 24 GB RAM.

• Ready for RIS/PACS integration without additional hardware.
• Support for external DICON USB media and preference management tool to exchange
preferences across users” shall be inserted under the item 9 ‘Accessories’.
12.8. The para “ Storage System:
- Minimum PACS/Image Storage Archival
– Comprehensive Storage and Archival System which will enable all DICOM HL 7 to be
stored and all vendors will be asked to provide licence” shall be inserted after the words
“Survey cum Contamination Monitor- 1No.” under the Item No.10 Hot Lab Accessories”.
12.9. The Item No.11 ‘Warranty’ shall be replaced by warranty clauses mentioned in Item
No.1.4 of General Terms & Conditions for all items..
12.10. The Item No.12 ‘Service’ shall be replaced by warranty clauses mentioned in Item
No.1.4 of General Terms & Conditions for all items..
12.11. The words “Seven days” shall be replaced by the words “ Six weeks” in Item No.13
‘Training’.
13. In Sl. No.14: Endoscopes
13.1. The words “WITH NBI” shall be deleted from all the headlines under Sl.No.14 Endoscopes.

13.2. The word “9.2MM” shall be replaced by the words “9.3mm or below” in 5th line of the table
VIDEO GASTROSCOPE.

13.3. The word “SHOULD HAVE NBI” shall be replaced by the words “Please specify” in 12th line
of the table VIDEO GASTGROSCOPE.

13.4. The word “NBI” shall be replaced by the words “Please specify” in 12th line of the table
VIDEO COLONOSCOPE.

13.5. The words “SHOULD HAVE NBI” shall be replaced by the words “Please specify” in 10th
line of the table VIDEO BRONCHOSCOPE.
13.6. The words “Please quote all” shall be added after the words “LED/300 WATT XENON” in
the 3rd line the table VIDEO PROCESSOR.
13.7. The words “Vascular Patency Enhancement Technology” shall be inserted under the heading
“PRE-INSTALLATION REQUIREMENT”.
13.8.
14. In Sl.No.15 Biochemistry, Haematology, Molecular Diagnostic Laboratory Equipments
14.1. Please read “Plain Real Time PCR” in place of “Real Time PCR along with compatible
(Nucleic Acid) Extraction system” above “RT-PCR: Specification” in Sl.No.15 Biochemistry, Haematology, Molecular Diagnostic Laboratory Equipments.
14.2. The following Laboratory Equipments shall be added under Sl. No.15. – Biochemistry,
Haematology, Molecular Diagnostic Laboratory Equipments.
Please quote for all of them with specifications
a. Agarose Gel Electrophoresis Truft and power supply.

b. Page get Electrophoresis Truft & power supply.

I. Gel Caster
II. Western Blot
III. Blot Transfer
IV. Truft & RLV densitometric scanner.
c. - 20 ° C Refrigerator.
d. DNA & RNA should be manually extracted.
e. Flow cytometry.
f. Electronic Balance.
g. Dry hot Bath 25° C – 199° C.
h. ELISA Reader.
i. Dual Beam Spectrophotometer Range 150 nm – 1100 nm.
j. Variant / HSLC / DIO Biorad Glycosylated haemoglobinometer.
k. Plain Real time PCR.
Director of Health Services,
Government of Tripura.