

Tender No: HCI/COM/JAFFNA/2009

**High Commission of India**  
**Colombo**

**Tender for Development of Surgical and Medical Intensive Care Units,  
Operation Theatre and Eye Ward at the Teaching Hospital, Jaffna,  
Sri Lanka**

High Commission of India, Colombo invites sealed bids (Technical & Financial separately) from the eligible bidders for supply, delivery and installation of items mentioned below at the Teaching Hospital, Jaffna, Sri Lanka:

Part No.	Description of Store	EMD
Part 1	Supply and installation of Hospital Instruments/ Equipment	Rs. 1,800,000.00 (SL Rupees One million Eight Hundred Thousands Only)

Bidders may purchase the Tender Documents from the address given below, against the payment of SLR 1,000.00 (non-refundable) in cash and in the form of Demand Draft drawn in favour of High Commission of India, Colombo. These can also be downloaded from the Mission's website [www.hcicolombo.org](http://www.hcicolombo.org) and in that case, a draft for SL Rs.1,000/- or I. Rs. 430/- drawn in favour of High Commission of India towards the fee of tender documents may be enclosed with the technical bid.

Address for purchase of Document: **Office of Deputy High Commissioner**  
High Commission of India  
36-38, Galle Road, Colombo-03

Tender Date: 20<sup>th</sup> September 2009

Pre-Bid Meeting: 13<sup>th</sup> October 2009 (10:00 Hrs)

Last Date of Submission of Bids: 26<sup>th</sup> October 2009 (16:00 Hrs)

Opening of Technical Bids: 26<sup>th</sup> October 2009 (16:30 Hrs)

# High Commission of India

## Colombo

Invitation for Tender for Supply, delivery and Installation of Hospital Instruments/Equipment at the Teaching Hospital, Jaffna in Sri Lanka

### Annexure

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<b>Sl. No.</b>	<b>Details</b>
1.	Financial Bid Document
2.	Tender and Financial Document

**Instructions to Bidders**

Bids (**Technical & Financial bids separately**) complete in all respects should be submitted in sealed envelopes addressed to High Commission of India **on or before 26<sup>th</sup> October 2009 by 1600 Hrs** at the office of the Deputy High Commissioner of India in Colombo in person, or by mail or courier to reach before the deadline of **26<sup>th</sup> October 2009 by 1600 Hrs**. The envelopes should be clearly marked "***Tender for Jaffna Hospital Project***". **All tenders received after the deadline will be rejected.**

2. All bidders **shall** submit along with the Tender the following documents:
  - i. Bidders shall submit bids in two parts as under :-
    - (a) Technical bid consisting of all technical details along-with commercial terms and conditions ; and
    - (b) Financial bid indicating item-wise price for the items mentioned in the technical bid.

**The technical bid and the financial bid should be sealed by the bidder in separate covers duly superscribed and both these sealed covers are to be put in a bigger cover which should also be sealed and duly superscribed. Bids not submitted in the manner explained above will be rejected without any further consideration.** The technical bids are to be opened by the High Commission at the first instance and evaluated by a competent committee or authority.

- ii. Bids (**Technical & Financial bids separately**) complete in all respects should be submitted in the prescribed Financial Bid Document along with detailed item-wise price in prescribed Tender and Financial Document (both attached herewith).
- iii. Both the above documents must be signed by authorized signatories of the bidding firm.
- iv. Self-attested photo-copy of registration of the company/firm/ proprietorship with the concerned Sri Lankan / Indian authorities.
- v. Annual Report (where statutorily required to be filed), and Financial Reports for the last 3 years, preferably audited ones.
- vi. Details of experience in the field of supplying similar items to Govt. or companies in Sri Lanka or in India

- vii. Copy of registration with Indian Govt. or Ministry of Health of Sri Lanka or any Provincial Council Ministries, Chambers of Commerce in Sri Lanka, if any.
  
- viii. Bid security (Earnest Money Deposit) of SL Rs.1,800,000 or the equivalent of the amounts in Indian Rupees at the rate of exchange of I.Rs. 1=SL Rs. 2.344), in the form of bank guarantee or account payee bank draft/bankers' cheque or fixed deposit receipt in favour of the High Commission of India, Colombo **should be furnished along-with Technical Bid.**

3. Technical Bids will be opened immediately after the bid closing hours i.e. 1600 Hrs on **26<sup>th</sup> October 2009** in the office of the Deputy High Commissioner, High Commission of India, 36-38, Galle Road, Colombo- 3, at 1700 hrs on **26<sup>th</sup> October 2009**. Bidders, if they so desire, can be present at the time of bid opening. After that, the financial bids of technically qualified bidders will be opened for which the date & time will be separately intimated.

## Chapter II

### Conditions of Contract

- 4. The bidder should be a company or firm or sole proprietorship duly registered with the concerned authorities in Sri Lanka or in India. **Bidder must be a manufacturer/publisher or authorized dealer or supplier of the items bidding for.** High Commission of India reserves the right to reject bids from firms who are blacklisted by Government of Sri Lanka or Government of India for poor performance in the past, or those who have no experience in the field of supplying the equipments mentioned above.
  
- 5. The bids will remain valid for 90 days from tender closing, for award of contract after obtaining approval of competent Indian authorities. **No price escalation would be allowed.**
  
- 6. The supply should be completed within **90 days** after award of the contract.
  
- 7. (I). All the items should be of good quality as per Sri Lankan Government specifications for supply to Ministry of Health and should be guaranteed against manufacturing defects for period of three years. Breakage, if any, in transit during the supply period should be replaced free of cost.  
  
(II) Supplier shall carry sufficient inventories to assure ex-stock supply of consumables and spares in Sri Lanka. Suppliers shall ensure the availability of after sales service for a period of at least six years including warranty period of three years.

8. The Supplier shall provide on-site warranty. The warranty period shall be thirty six months (36 months) from the date of acceptance of the goods. The Supplier shall, in addition, comply with the performance guarantees specified under the Contract. If, for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier shall, either make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance tests. In the event of any correction of defects or replacement of defective material during the warranty period, the warranty for the corrected/replaced material shall be extended to a further period of 36 months.

**Note: All charges with regard to the supply of spare parts, labour, travel, per diem and accommodation to supplier's staff etc. shall be borne by the supplier during the period of warranty. Client shall not pay any additional expenditure for services rendered during the above period.**

9. All bidders must furnish along with technical bid, a bid security (Earnest Money Deposit) in the form of bank draft/bankers' cheque, fixed deposit receipt with commercial banks or bank guarantee for a sum of SL Rs.1,800,000 or the equivalent of the amounts in Indian Rupees at the rate of exchange of I.Rs. 1=SL Rs. 2.344) and the bid security should be valid for a period of 90 days. The security of the unsuccessful bidders would be returned within a week from date of award of contract.
10. The successful bidder should furnish a performance security in the form of bank draft/bankers; cheque, fixed deposit receipt or bank guarantee of the value of 5% of the tender value. The performance security should be valid for a period of three years beyond completion of the contract and will be retained for a period of three years after completion of the date of supply.
11. The payment(s) will be released only after the supplies have been found to be the satisfied after concerned authorities of Government of Sri Lanka and the High Commission, completes physical verification of the supplies, and also technical verification, by a competent team from or authorized by the Government of Sri Lanka/ High Commission of India, Colombo. However, such verifications would be completed within a period of 2 weeks after completion of the supply.
12. After such physical/technical verifications of the supplies, payment would be released within a reasonable time.
13. Part payment, if desired by bidder, could be made on supply of 50% of the supplies and after completing physical/technical verification as above. No advance payment will be made.
14. In case of non-supply of items ordered within the specified period, a liquidated damages @ 1% of the tender amount shall be levied for a

delay of each calendar week subject to a maximum of 10%. **Acceptance of this may be indicated in the financial bid.**

### **Training**

15. For each equipment installed, the supplier is required to train the designated technical staff to enable them to effectively operate the system.

### **Delivery & Installation**

16. It is required to deliver and install the items in correct quantities as specified in the above schedule to the **Teaching Hospital, Jaffna, Sri Lanka** within 90 days of the date of the award of the contract.
17. The bids after evaluation in the High Commission will be sent to the competent authorities in the Government of India in New Delhi for approval. Therefore, the bid should remain valid for acceptance up to 90 days, without any price escalation.
18. The High Commission reserves the right to reject all or any bids, if necessary without assigning any reasons. Bidders should have technical capability/competence to provide sets as per prescribed standard/quality.

## **Chapter III**

### **Schedule of Requirements**

19. All supplies should be of good quality and manufacture of good repute and be guaranteed for a period of minimum three years. The supplier should undertake to replace free of cost items with manufacturing defects noticed during guarantee period, and breakage in transit, if any.

## **Chapter IV**

### **Specifications and allied technical details**

20. The equipment should be as per the Sri Lanka Government specifications for supplies to Ministry of Health. The items and the quantities thereof are listed at "Tender and Financial Document" (Enclosed).

## **Chapter V**

### **Price Schedule**

21. The bidder should provide unit price on C.I.F basis against each item in the **"Financial Bid Document"** with sub -totaling as required and submit the bid in the prescribed '**Financial Bid Document'** (attached),

## Chapter VI

### Contract Form

22. The successful bidder(s) has to sign a contract with the High Commission of India in an appropriate form, for execution of the contract

## Chapter VII

### General

23. For clarifications/queries, if any, prior to submission of bid, prospective bidders may contact **Attache (Economic & Commercial)**, on Phone 2422158 during office hours from 09.30 a.m. to 5.00 p.m. during working days.

### Attachments

- i. Financial Bid Document
- ii. Tender and Financial Document

[To be submitted on Letter Head of the Bidder]

**FINANCIAL BID DOCUMENT**

Cost for all the items                      SL Rs.

[Detailed item-wise as per Tender Document attached]

**Note: -**

1. I also undertake that in case of non-supply of items ordered within the specified period, liquidated damages @ 1% of the tender amount of the tendered amount for delay of each calendar week subject to a maximum of 10% shall be levied.

**Place:**

**Date:**

Signature-----

Name & Designation of the authorised  
signatory of the Bidding firm



## TENDER AND FINANCIAL DOCUMENT

**Important Note:** Only the list of items along with their technical specification should be attached with the Technical Bid. The Financial details such as price etc, should be attached with the financial bid only.

SN	Equipment and instrument	Specification	Req. No	Rate per Unit (SLR. or INR. as applicable)	Sales Tax or other taxes (SLR. or INR. as applicable)	Total amount (SLR. or INR. as applicable)
1	Patient Ventilator	<ol style="list-style-type: none"> <li>1. Compatible with adult and children.</li> <li>2. Compatible with following ventilator modes: VCV, PLV SIMV-VC, SIMV-VC/PSV, Bi Level, BiLevel/PSV, CPAP, CPAP/PSV, CPAP/Apnea.</li> <li>3. Main and Built in stand by battery operation.</li> <li>4. Comprehensive Warranty 3 &lt; years.</li> <li>5. Service &amp; Maintenance by company with trained Engineers.</li> </ol>	6			
2	Patient Monitors	<ol style="list-style-type: none"> <li>1. ECG with printer</li> <li>2. Non invasive blood presser</li> <li>3. ETCO2</li> <li>4. Respiration monitors</li> <li>5. Pulse Oxymetry</li> <li>6. Comprehensive Warranty 3 &lt; years</li> <li>7. Suitable for adult, Pediatric and neonatal patients</li> <li>8. Service &amp; Maintenance by company with trained Engineers.</li> </ol>	11			
3	Infusion Pumps	<ol style="list-style-type: none"> <li>1. Flow rate setting 0.1 – 999.9ml/h in 0.1 increments</li> <li>2. Delivery limits 0.1 – 9.99 ml</li> <li>3. Compatible with all popular IV sets</li> <li>4. Convenient battery level indicator</li> <li>5. Hour's battery back up</li> <li>6. Titration facility</li> <li>7. Variable alarm functions</li> <li>8. Advance safety features</li> <li>9. Comprehensive Warranty 3 &lt; years</li> <li>10. Service &amp; Maintenance by company with trained Engineers.</li> </ol>	20			

4	Cardiac Beds	<p>1. Dimensions: Overall length 2135mm Overall width 845-945 mm Recommended mattress size; 750x2000mm Height 600mm Weight approx; 90kg Maximum load 180kg</p> <p>2. Speed X Ray back rest with cassette tray</p> <p>3. Adjustments: Height adjustments hydraulically Adjustments pedal on both sides of the beds Trendelenburg and antiTrendelenburg adjustments gas spring assisted. Central locking castors</p>	9			
5	Suction Machines	<p>1. Vacuum range: 0 to 26 Kpa 2. Max Flow rate: 30lpm 3. Pump type: twin piston oil free 4. Collection Jar: Double Jar (each more than 2L) Autoclavable, shatter proof 5. Overflow protection: Flat vale mechanism 6. Noise &lt; 60 Db 7. Comprehensive Warranty 3 &lt; years 8. Service &amp; Maintenance by company with trained Engineers</p>	6			
6	Portable X-Ray Units	<p>1. 40 KHz – 110 KV – 3.3 KW 2. Stationary anode Tube, 12 Focus 1.5mm,3.3 KW,110KV 3. Maximum Currents and Max A: 70 mA / 320 mAs 4. Maximum A/C Absorption: 18A 5. Weight 122 Kg</p>	1			
7	Blood gas Analyser	<p>1. Measured test:- Na, K, Cl Glucose pH, pCO<sub>2</sub>, pO<sub>2</sub>, Haematocrit Haemoglobin, lactate 2. Automatic On brand quality control 3. All fully automatic liquid calibration system 4. Micro sampling capability for all samples 5. Patient data management system 6. Patient data storage facility 7. Inbuilt printer 8. Stand-by mode Reagent and sensor life saving. 9. Comprehensive Warranty 3 &lt; years 10. Service &amp; Maintenance by company with trained Engineers.</p>	1			

8	Transport Ventilator	<ol style="list-style-type: none"> <li>1. Compatible with adult and children.</li> <li>2. Compatible with multiple ventilator modes.</li> <li>3. Main and Built in stand by battery operation.</li> <li>4. Comprehensive Warranty 3 &lt; years</li> <li>5. Service &amp; Maintenance by company with trained Engineers.</li> </ol>	1			
9	Portable Pulse Oxymeter	<ol style="list-style-type: none"> <li>1. Oximeter for continuous and non invasive monitoring of SpO2 Pulse rate.</li> <li>2. Optical and audible alarms, adjustable alarm limits.</li> <li>3. Manual and automatic.</li> <li>4. Pulse wave form display.</li> <li>5. Oxygen saturation calibration functional range 0 to 100.</li> <li>6. Pulse rate 10 to 300 bpm.</li> <li>7. Plethysmographic wave form up to 24 hours.</li> <li>8. Main and Built in stand by battery operation.</li> <li>9. Comprehensive Warranty 3 &lt; years</li> <li>10. Service &amp; Maintenance by company with trained Engineers.</li> </ol>	1			
10	Anesthetic Machine	<ol style="list-style-type: none"> <li>1. O3 Gas model O2, N2O, Air.</li> <li>2. Trolley system with Castors (Anti-static lockable), large work surface.</li> <li>3. Mounting shelf &amp; power outlets – 04 nos.</li> <li>4. Two vaporizer stations.</li> <li>5. Cascade flow tubes for O2, N2O and Air on left hand.</li> <li>6. Pipeline connection for O2 and N2O and Air with pressure gauges for each gas.</li> <li>7. Pin index yokes 2 each for O2, N2O with pressure regulators and pressure gauges.</li> <li>8. Mechanical Anti-hypoxic device for O2 &amp; N2O.</li> <li>9. Emergency O2 flush, Auxiliary O2 outlet @ 4 bar, N2O/Air interlock.</li> <li>10. Audible alarm for O2 failure with automatic cutoff.</li> <li>11. Adjustable pressure relief valve.</li> <li>12. Selectatec type Halothane &amp; Isoflurane Vaporizer with key filler adopter – 01 no.</li> <li>13. Accessories – <ul style="list-style-type: none"> <li>- Circle Absorber system with Bag vent &amp; heater and detachable fresh gas hose assembly – (Adult and Peadiatric), Absorber bypass valve &amp; monometer.</li> <li>- Re-usable Magill Breathing system – complete.</li> </ul> </li> </ol>	2			

		<ul style="list-style-type: none"> <li>- Face masks size 1 – 5 with hook for headharness/headharness</li> <li>- Co-axel Brain circuits – Autoclavable &amp; reusable.</li> <li>- Jackson Rees Paediatric circuit.</li> <li>- Aneroid Sphygmomanometer.</li> <li>- Adjustable Spanner.</li> </ul> <p>14. Comprehensive Warranty 3 &lt; years.</p> <p>15. Service &amp; Maintenance by company with trained Engineers</p>				
11	Anesthetic Ventilator	<p>1. The unit shall operate on a power supply of 230V ± 10% 50 Hz.</p> <p>2. The unit shall be compact and able to mount on a mobile stand so that the unit will be at eye level</p> <p>3. The bellows shall be driven by an electricity powered DC servo motor</p> <p>4. There shall be an internal battery system for continuous operation of the unit at least for a period of 1 hour in case of a power failure.</p> <p>5. The equipment shall have the controls and displaying facilities for the followings:  Tidal Volume: 200 – 800ml  Respiratory Frequency:6–20 cycles/min  I:E Ratio:1:1 – 1:5 or insp. &amp; exp. Times independently adjustable  Airway Pressure:0 – 100 cm H<sub>2</sub>O  Tidal Volume and Respiratory Frequency shall be independently controllable</p> <p>6. There shall be an illuminated pressure gauge to indicate circuit pressure.</p> <p>7. There shall be a safety mechanism for limiting high and low pressures</p> <p>8. There shall be audible and visual alarm facility for indicating high/low pressure and power failure.</p> <p>9. The unit shall have facilities for use as a bag squeezer for closed circuits via hose with standard accessories.</p> <p>10. All gas outlets, circuit connections shall be compatible with BS standards.</p> <p>11. The unit shall include a mobile stand to keep the ventilator at eye level.</p> <p>12. Price of 50 bellows shall be quoted separately.</p> <p>13. Detailed installation, service and user manuals in English shall be supplied together with the equipment.</p> <p>14. Comprehensive Warranty 3 &lt; years</p>	4			

12	Patient Trolley	As per specifications of Sri Lankan Government for supply to Ministry of Health Standard specifications as prescribed by the norms	10			
13	Myo's Trolley	As per specifications of Sri Lankan Government for supply to Ministry of Health Standard specifications as prescribed by the norms	8			
14	Side Trolley for Assisting	As per specifications of Sri Lankan Government for supply to Ministry of Health Standard specifications as prescribed by the norms	10			
15	Diathermy	<p>1. The unit shall function on power supply of 230V ± 10%, 50 HZ. It shall be solid state, ruggedly constructed unit having monopolar and bipolar functions and shall be of portable type.</p> <p>2. It shall be a high power electrosurgery unit of monopolar cutting, coagulation and blending with maximum output powers not less than 300W, 100W and 200W respectively and maximum bipolar output power not less than 40W.</p> <p>3. The output power frequency shall not be less than 500k Hz and the maximum leakage current shall not exceed 10 micro Amperes for all patient circuits.</p> <p>4. The unit shall incorporate safety circuits to protect operators as well as patients from burning and electric shock.</p> <p>5. The output power in all conditions shall be able to be varied (control) from zero to maximum continuously.</p> <p>6. The power ON/OFF switch shall incorporate an indicator lamp. It shall be able to switch the output power by means of both foot switch and finger switch.</p> <p>7. There shall be visual indicators indicating different operating modes.</p> <p>8. The unit shall be equipped with audible and visual alarms to indicate equipment malfunction, such as discontinuation of patient plate etc. The unit shall be designed for safe operation in the presence of anesthetic gases.</p> <p>10. The diathermy shall be supplied with following accessories: [a] Lead plate, monopolar lead with needle, bipolar lead and forceps (these shall be autoclavable) [b] Monopolar foot</p>	5			

		<p>switch, bipolar foot switch</p> <p>11. The unit prices of the above accessories shall also be quoted separately.</p> <p>12. A complete and detailed set of operation, service and maintenance manuals in ENGLISH must be supplied with each unit.</p> <p>13. Fully graphic, illustrated original technical literate in ENGLISH describing he equipment offered &amp; detailing the specification shall also be supplied with the offer.</p> <p>14. The equipment supplied must be covered by a comprehensive "parts &amp; labour" warranty for a period of at least 12 months from the date of delivery to the Division of Biomedical Engineering Services.</p>				
16	Ultrasonic Nebuliser	<ol style="list-style-type: none"> <li>1. The unit shall be portable and suitable for inhalation therapy &amp; shall have facility to add supplementary oxygen.</li> <li>2. The unit shall operate on 230V +/- 10% 50Hz AC Mains supply</li> <li>3. The unit shall be suitable for heavy &amp; continuous work in a busy hospital ward. (Domestic type nebulizers shall not be acceptable).</li> <li>4. There shall be an indicator for power on/off.</li> <li>5. The unit shall be capable of producing uniform inhalant particles of less than 4 micrometers in diameter.</li> <li>6. The output shall be variable between 0.5 to 6mL/mt.</li> <li>7. The Nebulizing chamber shall be made of hard, durable, impact resistant material. It shall be transparent, autoclavable and non-disposable type. Facilities for removing the Nebulizing chamber for cleaning and sterilizing shall be provided.</li> <li>8. All tubing connections shall be non-disposable, durable and sterilizable by autoclaving.</li> <li>9. Each unit shall be supplied with following accessories. <ul style="list-style-type: none"> <li>• Non-disposable type mask and tubing</li> <li>• Inhalation mask</li> <li>• A user manual</li> <li>• A Service manual</li> <li>• Optional stand</li> </ul> </li> </ol>	1			

17	Laparoscope System	<p><b>LAPROSCOPIC SURGERY UNITS AND ACCESSORIES</b></p> <ul style="list-style-type: none"> <li>• Colour Monitor 20 inches</li> <li>• Digital Video Camera System</li> <li>• Xenon light source 300 watts</li> <li>• Fiber Optic Light Cable, Length 250 cm</li> <li>• High flow insufflations unit, Cylinder hose, insufflations tube</li> <li>• Electrosurgical unit</li> <li>• High Frequency cord, unipolar</li> <li>• High Frequency cord, bhipolar</li> <li>• Footswitch</li> <li>• Mobile Video cart</li> <li>• Cleaning , Sterilization, storage accessories</li> <li>• Suction and irrigation system</li> <li>• Ultrasonic Dissector with standard accessories</li> </ul> <p><b>LAPAROSCOPIC INSTRUMENT</b></p> <p>Straight Forward Telescope 0° (autoclavable)- 01 (enlarged view, diameter 10mm. length 31cm)</p> <p>Trocar Tube 11mm with pyramidal tip- 02 (Consisting of Cannula without valve 10.5cm, Insufflation Stopcock, Automatic Valve, Sealing Cap 10 pcs)</p> <p>Trocar Tube 6mm with pyramidal tip- 03 (Consisting of Cannula without valve 10.5cm, Insufflation , Stopcock, Multifunctional Valve, Sealing Cap 10 pcs)</p> <p>VERESS Pneumoperitonium Needle 10 cm - 02</p> <p>VERESS Pneumoperitonium Needle 15 cm - 02</p> <p>Reduction Sleeve, 5mm/11mm- 06</p> <p>Uterine Vacuum Cannula large and small -01 set (blunt jaws with 2 cones, channel for perturbation , length 24cm)</p> <p>Rotating Grasping Forceps, multiple teeth, with ratchet, with connector pin for unipolar coagulation</p> <ol style="list-style-type: none"> <li>1. Rotating Dissecting and Grasping Forceps, Atraumatic, with ratchet with connector pin for unipolar coagulation</li> <li>2. Rotating Dissecting and Grasping Forceps, without ratchet, with connector pin for unipolar coagulation</li> <li>3. Dismantling Grasping Forceps,</li> </ol>	1			
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		<p>atraumatic, U-spring-handle, with connector pin for unipolar coagulation.</p> <ol style="list-style-type: none"> <li>4. Rotating Claw Forceps, 2x3 teeth, with ratchet</li> <li>5. Rotating Scissors, with serrated jaws without ratchet, with connector pin for unipolar coagulation.</li> <li>6. Rotating Hook Scissors, without ratchet, with connector pin for unipolar coagulation.</li> <li>7. Rotating Scissors, METZENBAUM curved jaws, without ratchet, with connector pin for unipolar coagulation.</li> <li>8. Rotating Scissors, serrated jaws heavy blades without ratchet.</li> <li>9. Rotating Biopsy Punch forceps, with 2 teeth, without ratchet.</li> <li>10. Rotating Spoon Forceps, without ratchet.</li> <li>11. Bipolar Coagulation Forceps, width of jaws 1mm, connector pin for bipolar coagulation.</li> <li>12. Bipolar Coagulation Forceps, width of jaws 3mm, connector pin for bipolar coagulation.</li> <li>13. Coagulating and Dissecting Cannula L –shaped, insulated sheath, with connector pin for unipolar coagulation.</li> <li>14. Retractor – fan shaped – 5x330 mm.</li> <li>15. Uterine manipulator</li> <li>16. Ring applicator</li> </ol>				
18	Vitrectomy Machine	<ol style="list-style-type: none"> <li>1. Cutter rate of 300 to 1200 cpm,</li> <li>2. Pneumatically driven probes,</li> <li>3. Suitable air supply system,</li> <li>4. Vitrectomy : 0 to 600mmHg (105psi) 0 - 400mmHg (5-BAR)</li> <li>5. Fragmentation: 0 to 600mmHg (105psi) 0 - 400mmHg (5- BAR)</li> <li>6. Irrigation/ aspiration: 0 to 600mmHg (105psi) 0 – 400mmHg (5BAR)</li> <li>7. Dual illumination with 2 independently controlled illumination ports with bulb life of at least 10 hrs.</li> <li>8. Diathermy for intra and extra ocular use with foot switch control,</li> <li>9. A water tight foot switches with all integrated functions.</li> <li>10. Vented gas forced infusion: 0 to 120mmHg, digital controlled infusion pressure for fluid/air exchange, flow rate: 1.2slpm min @ 120mmHg, gas hose of 10'</li> </ol>	1			



		<p>with cylinder or pump</p> <p>11. Accessories : vitrectomy probes ,re- usable cassettes, Std 20g fiber optic illuminator, silicone bipolar cable (15 Nos) and bipolar brush (15Nos)</p> <p>12. System should be upgradable</p>				
19	Argon 532 laser for diabetic and glaucoma investigation	<p>1. Photo coagulator: - diode – pumped frequency doubled solid state laser, at 532nm.Should have-laser power range from 50nW to 1.5W, Spot diameter from 50um to 500um, exposure time 0.02 to 1.5 sec., aiming laser beam with adjustable intensity. Repeat interval between 30msec. to 1000m sec. Display screen for power &amp; exposure time.Should be able to use with slit lamp , indirect laser ophthalmoscope and endo laser.Should be supplied with a foot switch for laser activation with ready and standby mode.Should be provided with slit lamp, 3 mirror and wide field lenses. The slit lamp should have multi step magnification , laser filter , etc.and mounted on a electrically adjustable instrument table with emergency stopper.Laser safety goggles.</p>	1			
20	GDX machine for glaucoma investigation	<p>1. GaAIAs laser diode, 780nm, 40mW primary power for illumination laser.</p> <p>2. Laser diode 635nm, 5nW primary power for fixation,</p> <p>3. Laser diode, 650nm, &lt;500uW for trigger laser,</p> <p>4. 40 x 20 measurement area,</p> <p>5. 256 x 128 pixels x 8bit digital resolution,</p> <p>-10 to +7Ds ametropic correction,</p> <p>6. Omni directional joy stick,</p> <p>7. &lt;1sec data acquisition time,</p> <p>8. Age adjusted normals with diverse ancestry,</p> <p>9. Integrated colour liquid crystal display</p>	1			

21	Fundus Camera	<ol style="list-style-type: none"> <li>1. 45 &amp; 30 degree field angle,</li> <li>2. Fluorescein angiography with green, blue and red.</li> <li>3. For undilated pupil infra- red colour facility, FA plus fundus video clips.</li> <li>4. Ametropic compensation +35Ds to -35Ds</li> <li>5. Pupil diameter: &gt; 4 mm</li> <li>6. Working distance 40mm</li> <li>7. Internal and external fixation</li> <li>8. Capture sequence 1.5 to 2 sec.</li> <li>9. CCD 5 mega pixels</li> <li>10. Images: Still &amp; video clipps</li> <li>11. Exposure interval upto 0.7 sec</li> <li>12. 19" TFT</li> <li>13. Xenon flash lamp, &gt;20 levels</li> <li>14. Automatic storage of images, data transfer, printer &amp; DVD burner</li> <li>15. Image analysis facility</li> <li>16. Compatible with windows XP</li> </ol>	1			
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**GENERAL CONDITIONS FOR ALL THE ABOVE INSTRUMENTS/EQUIPMENTS**

1. Make & Model of all the items may be mentioned along-with the country of manufacture
2. All above equipments should have Installation, service & operation manuals in English
3. Original technical literature with graphics in English.
4. Main power supply: 230V + or – 10%, 50Hz
5. Comprehensive (parts & labour) on-site warranty for a minimum period of 3 years
6. Installation, Service & Maintenance by company with trained Engineers.