WEST BENGAL MEDICAL SERVICES CORPORATION LIMITED - GoWB
Through
United Nations Office for Project Services, New Delhi.

Invitation to Bid (ITB)

SUPPLY OF MEDICAL EQUIPMENT FOR HOSPITALS AND MEDICAL COLLEGES OF THE GOVERNMENT OF WEST BENGAL

UNOPS Case No. UNOPS/IPO/WBMSC/EQUIP/18/2012

Amendment-III, dated 05 September 2012

The following amendments are made to the Bid document for the Supply of Medical Equipment for the Hospitals and Medical Colleges of the Government of West Bengal, with reference to above ITB:

The amended time lines are as given below:

Last Date, Time and Place of Receiving of Bids	**1400 Hrs. (IST) on September 11, 2012 at UNOPS India Operations Centre at 138 Sunder Nagar, New Delhi-110003**
Date, Time and Place of Bid Opening	**1430 Hrs. (IST) on September 11, 2012 at UNOPS India Operations Centre at 138 Sunder Nagar, New Delhi-110003**

S. No.	Reference
1	**Under Section IV. Bidding Forms:** **"Price Schedule Form" is replaced.**
2	**Schedule V. Schedule of Requirements is replaced.** **See Annexure below.**

All other terms and conditions of the bid document, except as amended herein above, remain unaltered.

Pre-cleared by:

Ram Trivedi
Regional Procurement Advisor
Date: 5 Sep 2012

Approved by:

Jaap van Hierden
OIC-APO
Date: 5 Sep 2012

Annexure

Price Schedule Form

*[The Bidder shall fill in these Price Schedule Forms in accordance with the instructions indicated. The list of line items in column 1 of the **Price Schedules** shall coincide with the List of Goods and Related Services specified by UNOPS in the Schedule of Requirements.]*

BIDDER'S PRICES FOR GOODS (Price & Currency to be entered by Bidder):													
Schedule No.	**DESCRIPTION**	**QTY. (in Nos.)**	**Manufacturer/ Supplier/ Agent**	**Country of Origin**	**Manufactured by**	**Currency**	**UNIT CPT PRICE Final Destination***	**TOTAL CPT PRICE Final place of destination***	**Taxes/Duties****				**TOTAL GOODS PRICE inclusive of all Tax/Duty*****
									Excise Duty	**Custom Duty**	**VAT**	**CST**	
(a)	**(b)**	**(c)**	**(d)**	**(e)**	**(f)**	**(g)**	**(h)**	**(i) = (c) x (h)**	**(j)**	**(k)**	**(l)**	**(m)**	**(n) = (i) + (j) + (k) + (l) + (m)**
1	**Transport Ventilator**	1											
	CMC Charges for Year1 after completion of warranty of two years	1											
	CMC Charges for Year2 after completion of warranty of two years	1											
	CMC Charges for Year3 after completion of warranty of two years	1											
	CMC Charges for Year4 after completion of warranty of two years	1											
	CMC Charges for Year5 after completion of warranty of two years	1											
2	**Elisa Reader & Washer**	1											
	CMC Charges for Year1 after completion of warranty of two years	1											
	CMC Charges for Year2 after completion of warranty of two years	1											
	CMC Charges for Year3 after completion of warranty of two years	1											

BIDDER'S PRICES FOR GOODS (Price & Currency to be entered by Bidder):													
Schedule No.	**DESCRIPTION**	**QTY. (in Nos.)**	**Manufacturer/ Supplier/ Agent**	**Country of Origin**	**Manufactured by**	**Currency**	**UNIT CPT PRICE Final Destination***	**TOTAL CPT PRICE Final place of destination***	**Taxes/Duties****				**TOTAL GOODS PRICE inclusive of all Tax/Duty*****
									Excise Duty	**Custom Duty**	**VAT**	**CST**	
(a)	**(b)**	**(c)**	**(d)**	**(e)**	**(f)**	**(g)**	**(h)**	**(i) = (c) x (h)**	**(j)**	**(k)**	**(l)**	**(m)**	**(n) = (i) + (j) + (k) + (l) + (m)**
	CMC Charges for Year4 after completion of warranty of two years	**1**											
	CMC Charges for Year5 after completion of warranty of two years	**1**											
3	**ICU Ventilator**	**1**											
	CMC Charges for Year1 after completion of warranty of two years	**1**											
	CMC Charges for Year2 after completion of warranty of two years	**1**											
	CMC Charges for Year3 after completion of warranty of two years	**1**											
	CMC Charges for Year4 after completion of warranty of two years	**1**											
	CMC Charges for Year5 after completion of warranty of two years	**1**											
4	**Instrument Strerilizer**	**4**											
	CMC Charges for Year1 after completion of warranty of two years	**4**											
	CMC Charges for Year2 after completion of warranty of two years	**4**											
	CMC Charges for Year3 after completion of warranty of two years	**4**											
	CMC Charges for Year4 after completion of warranty of two years	**4**											
	CMC Charges for Year5 after completion of warranty of two years	**4**											

BIDDER'S PRICES FOR GOODS (Price & Currency to be entered by Bidder):													
Schedule No.	**DESCRIPTION**	**QTY. (in Nos.)**	**Manufacturer/ Supplier/ Agent**	**Country of Origin**	**Manufactured by**	**Currency**	**UNIT CPT PRICE Final Destination***	**TOTAL CPT PRICE Final place of destination***	**Taxes/Duties****				**TOTAL GOODS PRICE inclusive of all Tax/Duty*****
									Excise Duty	**Custom Duty**	**VAT**	**CST**	
(a)	**(b)**	**(c)**	**(d)**	**(e)**	**(f)**	**(g)**	**(h)**	**(i) = (c) x (h)**	**(j)**	**(k)**	**(l)**	**(m)**	**(n) = (i) + (j) + (k) + (l) + (m)**
5	**Ultrasonic Cleaner**	**2**											
	CMC Charges for Year1 after completion of warranty of two years	**2**											
	CMC Charges for Year2 after completion of warranty of two years	**2**											
	CMC Charges for Year3 after completion of warranty of two years	**2**											
	CMC Charges for Year4 after completion of warranty of two years	**2**											
	CMC Charges for Year5 after completion of warranty of two years	**2**											
6	**Paediatric Laparoscope Set**	**2**											
	CMC Charges for Year1 after completion of warranty of two years	**2**											
	CMC Charges for Year2 after completion of warranty of two years	**2**											
	CMC Charges for Year3 after completion of warranty of two years	**2**											
	CMC Charges for Year4 after completion of warranty of two years	**2**											
	CMC Charges for Year5 after completion of warranty of two years	**2**											
7	**30 degree Laparoscopes for Urology**	**1**											
	CMC Charges for Year1 after completion of warranty of two years	**1**											

BIDDER'S PRICES FOR GOODS (Price & Currency to be entered by Bidder):													
Schedule No.	**DESCRIPTION**	**QTY. (in Nos.)**	**Manufacturer/ Supplier/ Agent**	**Country of Origin**	**Manufactured by**	**Currency**	**UNIT CPT PRICE Final Destination***	**TOTAL CPT PRICE Final place of destination***	**Taxes/Duties****				**TOTAL GOODS PRICE inclusive of all Tax/Duty*****
									Excise Duty	**Custom Duty**	**VAT**	**CST**	
(a)	**(b)**	**(c)**	**(d)**	**(e)**	**(f)**	**(g)**	**(h)**	**(i) = (c) x (h)**	**(j)**	**(k)**	**(l)**	**(m)**	**(n) = (i) + (j) + (k) + (l) + (m)**
	CMC Charges for Year2 after completion of warranty of two years	**1**											
	CMC Charges for Year3 after completion of warranty of two years	**1**											
	CMC Charges for Year4 after completion of warranty of two years	**1**											
	CMC Charges for Year5 after completion of warranty of two years	**1**											
8	**Power Drill**	**4**											
	CMC Charges for Year1 after completion of warranty of two years	**4**											
	CMC Charges for Year2 after completion of warranty of two years	**4**											
	CMC Charges for Year3 after completion of warranty of two years	**4**											
	CMC Charges for Year4 after completion of warranty of two years	**4**											
	CMC Charges for Year5 after completion of warranty of two years	**4**											
9	**64 channel Polysomnograph system**	**2**											
	CMC Charges for Year1 after completion of warranty of two years	**2**											
	CMC Charges for Year2 after completion of warranty of two years	**2**											
	CMC Charges for Year3 after completion of warranty of two years	**2**											

BIDDER'S PRICES FOR GOODS (Price & Currency to be entered by Bidder):													
Schedule No.	**DESCRIPTION**	**QTY. (in Nos.)**	**Manufacturer/ Supplier/ Agent**	**Country of Origin**	**Manufactured by**	**Currency**	**UNIT CPT PRICE Final Destination***	**TOTAL CPT PRICE Final place of destination***	**Taxes/Duties****				**TOTAL GOODS PRICE inclusive of all Tax/Duty*****
									Excise Duty	**Custom Duty**	**VAT**	**CST**	
(a)	**(b)**	**(c)**	**(d)**	**(e)**	**(f)**	**(g)**	**(h)**	**(i) = (c) x (h)**	**(j)**	**(k)**	**(l)**	**(m)**	**(n) = (i) + (j) + (k) + (l) + (m)**
	CMC Charges for Year4 after completion of warranty of two years	**2**											
	CMC Charges for Year5 after completion of warranty of two years	**2**											
10	**Gel System for DAT**	**1**											
	CMC Charges for Year1 after completion of warranty of two years	**1**											
	CMC Charges for Year2 after completion of warranty of two years	**1**											
	CMC Charges for Year3 after completion of warranty of two years	**1**											
	CMC Charges for Year4 after completion of warranty of two years	**1**											
	CMC Charges for Year5 after completion of warranty of two years	**1**											
11	**Flash Autoclave**	**8**											
	CMC Charges for Year1 after completion of warranty of two years	**8**											
	CMC Charges for Year2 after completion of warranty of two years	**8**											
	CMC Charges for Year3 after completion of warranty of two years	**8**											
	CMC Charges for Year4 after completion of warranty of two years	**8**											
	CMC Charges for Year5 after completion of warranty of two years	**8**											

BIDDER'S PRICES FOR GOODS (Price & Currency to be entered by Bidder):													
Schedule No.	**DESCRIPTION**	**QTY. (in Nos.)**	**Manufacturer/ Supplier/ Agent**	**Country of Origin**	**Manufactured by**	**Currency**	**UNIT CPT PRICE Final Destination***	**TOTAL CPT PRICE Final place of destination***	**Taxes/Duties****				**TOTAL GOODS PRICE inclusive of all Tax/Duty*****
									Excise Duty	**Custom Duty**	**VAT**	**CST**	
(a)	**(b)**	**(c)**	**(d)**	**(e)**	**(f)**	**(g)**	**(h)**	**(i) = (c) x (h)**	**(j)**	**(k)**	**(l)**	**(m)**	**(n) = (i) + (j) + (k) + (l) + (m)**
12	**Fundus Fluorescence Angiography**	**2**											
	CMC Charges for Year1 after completion of warranty of two years	**2**											
	CMC Charges for Year2 after completion of warranty of two years	**2**											
	CMC Charges for Year3 after completion of warranty of two years	**2**											
	CMC Charges for Year4 after completion of warranty of two years	**2**											
	CMC Charges for Year5 after completion of warranty of two years	**2**											
13	**C-Arm (Low End)**	**14**											
	CMC Charges for Year1 after completion of warranty of two years	**14**											
	CMC Charges for Year2 after completion of warranty of two years	**14**											
	CMC Charges for Year3 after completion of warranty of two years	**14**											
	CMC Charges for Year4 after completion of warranty of two years	**14**											
	CMC Charges for Year5 after completion of warranty of two years	**14**											
	CMC Charges for Year6 after completion of warranty of two years	**14**											
	CMC Charges for Year7 after completion of warranty of two years	**14**											

BIDDER'S PRICES FOR GOODS (Price & Currency to be entered by Bidder):													
Schedule No.	**DESCRIPTION**	**QTY. (in Nos.)**	**Manufacturer/ Supplier/ Agent**	**Country of Origin**	**Manufactured by**	**Currency**	**UNIT CPT PRICE Final Destination***	**TOTAL CPT PRICE Final place of destination***	**Taxes/Duties****				**TOTAL GOODS PRICE inclusive of all Tax/Duty*****
									Excise Duty	**Custom Duty**	**VAT**	**CST**	
(a)	**(b)**	**(c)**	**(d)**	**(e)**	**(f)**	**(g)**	**(h)**	**(i) = (c) x (h)**	**(j)**	**(k)**	**(l)**	**(m)**	**(n) = (i) + (j) + (k) + (l) + (m)**
	CMC Charges for Year8 after completion of warranty of two years	**14**											
14	**Oxygen Concentrator**	**50**											
	CMC Charges for Year1 after completion of warranty of two years	**50**											
	CMC Charges for Year2 after completion of warranty of two years	**50**											
	CMC Charges for Year3 after completion of warranty of two years	**50**											
	CMC Charges for Year4 after completion of warranty of two years	**50**											
	CMC Charges for Year5 after completion of warranty of two years	**50**											
15	**Diathermy with Vessel Sealing System**	**1**											
	CMC Charges for Year1 after completion of warranty of two years	**1**											
	CMC Charges for Year2 after completion of warranty of two years	**1**											
	CMC Charges for Year3 after completion of warranty of two years	**1**											
	CMC Charges for Year4 after completion of warranty of two years	**1**											
	CMC Charges for Year5 after completion of warranty of two years	**1**											
16	**Liquid Nitrogen Cryosurgery**	**1**											

BIDDER'S PRICES FOR GOODS (Price & Currency to be entered by Bidder):													
Schedule No.	**DESCRIPTION**	**QTY. (in Nos.)**	**Manufacturer/ Supplier/ Agent**	**Country of Origin**	**Manufactured by**	**Currency**	**UNIT CPT PRICE Final Destination***	**TOTAL CPT PRICE Final place of destination***	**Taxes/Duties****				**TOTAL GOODS PRICE inclusive of all Tax/Duty*****
									Excise Duty	**Custom Duty**	**VAT**	**CST**	
(a)	**(b)**	**(c)**	**(d)**	**(e)**	**(f)**	**(g)**	**(h)**	**(i) = (c) x (h)**	**(j)**	**(k)**	**(l)**	**(m)**	**(n) = (i) + (j) + (k) + (l) + (m)**
	Unit												
	CMC Charges for Year1 after completion of warranty of two years	**1**											
	CMC Charges for Year2 after completion of warranty of two years	**1**											
	CMC Charges for Year3 after completion of warranty of two years	**1**											
	CMC Charges for Year4 after completion of warranty of two years	**1**											
	CMC Charges for Year5 after completion of warranty of two years	**1**											
17	**High End Doppler USG Unit**	**2**											
	CMC Charges for Year1 after completion of warranty of two years	**2**											
	CMC Charges for Year2 after completion of warranty of two years	**2**											
	CMC Charges for Year3 after completion of warranty of two years	**2**											
	CMC Charges for Year4 after completion of warranty of two years	**2**											
	CMC Charges for Year5 after completion of warranty of two years	**2**											
18	**PUVA & nb-UVB Combined Chamber**	**1**											
	CMC Charges for Year1 after completion of warranty of two years	**1**											

BIDDER'S PRICES FOR GOODS (Price & Currency to be entered by Bidder):													
Schedule No.	**DESCRIPTION**	**QTY. (in Nos.)**	**Manufacturer/ Supplier/ Agent**	**Country of Origin**	**Manufactured by**	**Currency**	**UNIT CPT PRICE Final Destination***	**TOTAL CPT PRICE Final place of destination***	**Taxes/Duties****				**TOTAL GOODS PRICE inclusive of all Tax/Duty*****
									Excise Duty	**Custom Duty**	**VAT**	**CST**	
(a)	**(b)**	**(c)**	**(d)**	**(e)**	**(f)**	**(g)**	**(h)**	**(i) = (c) x (h)**	**(j)**	**(k)**	**(l)**	**(m)**	**(n) = (i) + (j) + (k) + (l) + (m)**
	CMC Charges for Year2 after completion of warranty of two years	**1**											
	CMC Charges for Year3 after completion of warranty of two years	**1**											
	CMC Charges for Year4 after completion of warranty of two years	**1**											
	CMC Charges for Year5 after completion of warranty of two years	**1**											
19	**Rapid Automated Blood Culture System**	**1**											
	CMC Charges for Year1 after completion of warranty of two years	**1**											
	CMC Charges for Year2 after completion of warranty of two years	**1**											
	CMC Charges for Year3 after completion of warranty of two years	**1**											
	CMC Charges for Year4 after completion of warranty of two years	**1**											
	CMC Charges for Year5 after completion of warranty of two years	**1**											
20	**Distillation Apparatus Microbiology-01; Phamacology-10**	**11**											
	CMC Charges for Year1 after completion of warranty of two years	**11**											
	CMC Charges for Year2 after completion of warranty of two years	**11**											
	CMC Charges for Year3 after	**11**											

BIDDER'S PRICES FOR GOODS (Price & Currency to be entered by Bidder):													
Schedule No.	**DESCRIPTION**	**QTY. (in Nos.)**	**Manufacturer/ Supplier/ Agent**	**Country of Origin**	**Manufactured by**	**Currency**	**UNIT CPT PRICE Final Destination***	**TOTAL CPT PRICE Final place of destination***	**Taxes/Duties****				**TOTAL GOODS PRICE inclusive of all Tax/Duty*****
									Excise Duty	**Custom Duty**	**VAT**	**CST**	
(a)	**(b)**	**(c)**	**(d)**	**(e)**	**(f)**	**(g)**	**(h)**	**(i) = (c) x (h)**	**(j)**	**(k)**	**(l)**	**(m)**	**(n) = (i) + (j) + (k) + (l) + (m)**
	completion of warranty of two years												
	CMC Charges for Year4 after completion of warranty of two years	**11**											
	CMC Charges for Year5 after completion of warranty of two years	**11**											
21	**Analytical Balance** **Haematology-1; Anatomy-1**	**2**											
	CMC Charges for Year1 after completion of warranty of two years	**2**											
	CMC Charges for Year2 after completion of warranty of two years	**2**											
	CMC Charges for Year3 after completion of warranty of two years	**2**											
	CMC Charges for Year4 after completion of warranty of two years	**2**											
	CMC Charges for Year5 after completion of warranty of two years	**2**											
22	**Cold Centrifuge** **Microbiology-1**	**1**											
	CMC Charges for Year1 after completion of warranty of two years	**1**											
	CMC Charges for Year2 after completion of warranty of two years	**1**											
	CMC Charges for Year3 after completion of warranty of two years	**1**											
	CMC Charges for Year4 after completion of warranty of two years	**1**											

BIDDER'S PRICES FOR GOODS (Price & Currency to be entered by Bidder):													
Schedule No.	**DESCRIPTION**	**QTY. (in Nos.)**	**Manufacturer/ Supplier/ Agent**	**Country of Origin**	**Manufactured by**	**Currency**	**UNIT CPT PRICE Final Destination***	**TOTAL CPT PRICE Final place of destination***	**Taxes/Duties****				**TOTAL GOODS PRICE inclusive of all Tax/Duty*****
									Excise Duty	**Custom Duty**	**VAT**	**CST**	
(a)	**(b)**	**(c)**	**(d)**	**(e)**	**(f)**	**(g)**	**(h)**	**(i) = (c) x (h)**	**(j)**	**(k)**	**(l)**	**(m)**	**(n) = (i) + (j) + (k) + (l) + (m)**
	CMC Charges for Year5 after completion of warranty of two years	**1**											
23	**Carbon Dioxide Laser ENT-1 ; Dermatology - 1**	**2**											
	CMC Charges for Year1 after completion of warranty of two years	**2**											
	CMC Charges for Year2 after completion of warranty of two years	**2**											
	CMC Charges for Year3 after completion of warranty of two years	**2**											
	CMC Charges for Year4 after completion of warranty of two years	**2**											
	CMC Charges for Year5 after completion of warranty of two years	**2**											
24	**Inspissator**	**1**											
	CMC Charges for Year1 after completion of warranty of two years	**1**											
	CMC Charges for Year2 after completion of warranty of two years	**1**											
	CMC Charges for Year3 after completion of warranty of two years	**1**											
	CMC Charges for Year4 after completion of warranty of two years	**1**											
	CMC Charges for Year5 after completion of warranty of two years	**1**											
25	**Vortex Mixer**	**1**											

BIDDER'S PRICES FOR GOODS (Price & Currency to be entered by Bidder):													
Schedule No.	**DESCRIPTION**	**QTY. (in Nos.)**	**Manufacturer/ Supplier/ Agent**	**Country of Origin**	**Manufactured by**	**Currency**	**UNIT CPT PRICE Final Destination***	**TOTAL CPT PRICE Final place of destination***	**Taxes/Duties****				**TOTAL GOODS PRICE inclusive of all Tax/Duty*****
									Excise Duty	**Custom Duty**	**VAT**	**CST**	
(a)	**(b)**	**(c)**	**(d)**	**(e)**	**(f)**	**(g)**	**(h)**	**(i) = (c) x (h)**	**(j)**	**(k)**	**(l)**	**(m)**	**(n) = (i) + (j) + (k) + (l) + (m)**
	CMC Charges for Year1 after completion of warranty of two years	**1**											
	CMC Charges for Year2 after completion of warranty of two years	**1**											
	CMC Charges for Year3 after completion of warranty of two years	**1**											
	CMC Charges for Year4 after completion of warranty of two years	**1**											
	CMC Charges for Year5 after completion of warranty of two years	**1**											
26	**Hot Air Oven**	**1**											
	CMC Charges for Year1 after completion of warranty of two years	**1**											
	CMC Charges for Year2 after completion of warranty of two years	**1**											
	CMC Charges for Year3 after completion of warranty of two years	**1**											
	CMC Charges for Year4 after completion of warranty of two years	**1**											
	CMC Charges for Year5 after completion of warranty of two years	**1**											
27	**pH Meter**	**2**											
	CMC Charges for Year1 after completion of warranty of two years	**2**											
	CMC Charges for Year2 after completion of warranty of two years	**2**											

BIDDER'S PRICES FOR GOODS (Price & Currency to be entered by Bidder):													
Schedule No.	DESCRIPTION	QTY. (in Nos.)	Manufacturer/ Supplier/ Agent	Country of Origin	Manufactured by	Currency	UNIT CPT PRICE Final Destination*	TOTAL CPT PRICE Final place of destination*	Taxes/Duties**				TOTAL GOODS PRICE inclusive of all Tax/Duty***
									Excise Duty	Custom Duty	VAT	CST	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i) = (c) x (h)	(j)	(k)	(l)	(m)	(n) = (i) + (j) + (k) + (l) + (m)
	CMC Charges for Year3 after completion of warranty of two years	2											
	CMC Charges for Year4 after completion of warranty of two years	2											
	CMC Charges for Year5 after completion of warranty of two years	2											
28	**Water Bath**	2											
	CMC Charges for Year1 after completion of warranty of two years	2											
	CMC Charges for Year2 after completion of warranty of two years	2											
	CMC Charges for Year3 after completion of warranty of two years	2											
	CMC Charges for Year4 after completion of warranty of two years	2											
	CMC Charges for Year5 after completion of warranty of two years	2											

* **CPT Price of the equipment shall include cost of goods, Supply, Installation, Commissioning and warranty for Medical Equipment**

** **There shall be no exemption from any applicable tax/duty; nature and amount of each tax / duty (i.e. VAT, CST, Excise Duty, Custom Duty) component should be clearly specified.**

*** **The Contract Price for a successful bidder shall be limited to the TOTAL GOODS PRICE in column (n).**

NOTE :

1) **The price quoted in one schedule should be in one currency only.**
2) **If CMC column is left blank, then it will be assumed that the CMC is free of cost.**

BIDDER'S SIGNATURE AND CONFIRMATION OF THE ITB	
PROVIDED THAT A PURCHASE ORDER IS ISSUED BY UNOPS **WITHIN THE REQUIRED BID VALIDITY PERIOD** , THE UNDERSIGNED HEREBY COMMITS, SUBJECT TO THE TERMS OF SUCH PURCHASE ORDER, TO FURNISH ANY OR ALL ITEMS AT THE PRICES OFFERED AND TO DELIVER SAME TO THE DESIGNATED POINT(S) WITHIN THE DELIVERY TIME STATED IN SCHEDULE OF REQUIREMENT.	
Exact name and address of company COMPANY NAME_____ ADDRESS_____ _____ PHONE NO._____ FAX NO. _____ EMAIL ADDRESS OF CONTACT PERSON_____ OTHER EMAIL ADDRESSES_____	_____ **AUTHORIZED SIGNATURE** **DATE** _____ NAME OF AUTHORIZED SIGNATORY (TYPE OR PRINT) _____ FUNCTIONAL TITLE OF SIGNATORY **WEB SITE**_____

Section V. Schedule of Requirements

Table of Contents

1. List of Goods and Consignee-wise Distribution

Schedule No.	Description of Goods	Quantity	Consignee List	Bid Security
1	Transport Ventilator	1	NRS Medical College	INR 20,000/ USD 400
2	Elisa Reader & Washer	1	NRS Medical College	INR 10,000/ USD 200
3	ICU Ventilator	1	NRS Medical College	INR 20,000/ USD 400
4	Instrument Strerilizer	4	NRS Medical College	INR 5,000/ USD 100
5	Ultrasonic Cleaner	2	NRS Medical College	INR 10,000/ USD 200
6	Paediatric Laparoscope Set	2	NRS Medical College	INR 75,000 / USD 1500
7	30 degree Laparoscope (for Urology)	1	NRS Medical College	INR 20,000/ USD 400
8	Power Drill	4	NRS Medical College	INR 20,000/ USD 400
9	64 channel Polysomnograph system	2	NRS Medical College	INR 20,000/ USD 400
10	Gel System for DAT	1	NRS Medical College	INR 20,000/ USD 400
11	Flash Autoclave	1	Director – Regional Institute of Ophthalmology(RIO), Calcutta Medical College, Kolkata	INR 20,000/ USD 400
		1	Calcutta National Medical College & Hospital	
		1	R G Kar Medical College & Hospital	
		1	NRS Medical College & Hospital	
		1	SSKM Hospital	
		1	Burdwan Medical College & Hospital	
		1	Bankura Sammilani Medical College & Hospital	
		1	North Bengal Medical College & Hospital	
12	Fundus Fluorescence Angiography	1	NRS Medical Collage & Hospital	INR 20,000/ USD 400
		1	Sambhu Nath Pandit Hospital	
13	C-Arm (Low End)	14	Jalpaiguri DH-1	INR 20,000/ USD 400
			Alipurduar SDH-1	
			Mal SDH-1	
			Islampur SDH-1	
			Balurghat DH-1	
			Gangarampur DH-1	

Schedule No.	Description of Goods	Quantity	Consignee List	Bid Security
			Malda DHMJN DH-1	
			MJN DH-1	
			Mathabhanga SDH-1	
			Dinhata SDH-1	
			NRS Medical College-1	
			Siliguri DH-1	
			Kalimpong DH-1	
			Kharagpur SDH - 1	
14	Oxygen Concentrator	50	Mostly for SDH only. Detailed consignee list will be communicated later.	INR 20,000/ USD 400
15	Diathermy with Vessel Sealing System	1	NRS Medical College	INR 20,000/ USD 400
16	Liquid Nitrogen Cryosurgery Unit	1	NRS Medical College	INR 20,000/ USD 400
17	High End Doppler USG Unit	2	NRS Medical College-1	INR 20,000/ USD 400
			Kharagpur SDH - 1	
18	PUVA & nb-UVB Combined Chamber	1	NRS Medical College	INR 20,000/ USD 400
19	Rapid Automated Blood Culture System	1	NRS Medical College	INR 20,000/ USD 400
20	Distillation Apparatus Microbiology-01; Phamacology-10	11	NRS Medical College	INR 20,000/ USD 400
21	Analytical Balance Haematology-1; Anatomy-1	2	NRS Medical College	INR 10,000/ USD 200
22	Cold Centrifuge Microbiology-1	1	NRS Medical College	INR 10,000/ USD 200
23	Carbon Dioxide Laser ENT-1; Dermatology - 1	2	NRS Medical College	INR 20,000/ USD 400
24	Inspissator	1	NRS Medical College	INR 10,000/ USD 200
25	Vortex Mixer	1	NRS Medical College	INR 5,000/ USD 100
26	Hot Air Oven	1	NRS Medical College	INR 5,000/ USD 100
27	pH Meter	2	NRS Medical College	INR 5,000/ USD 100
28	Water Bath	2	NRS Medical College	INR 5,000/ USD 100

2. List of Related Services and Delivery & Completion Schedule

List of Related Services:

i) Incidental Services

The supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:

(a) Performance or supervision of the assembly, installation and/or start-up of the supplied equipment

(b) Furnishing of tools required for assembly and/or maintenance of the supplied Goods along with each equipment

(c) Furnishing of detailed operations and maintenance manual for each appropriate unit of supplied equipment at the time of delivery

(d) After sales service centre should be available at/near to the location of Consignee on 24 (hrs) X 7 (days) X 365 (days) basis. Complaints should be attended properly maximum within 48 hrs including the travel time.

(e) The Comprehensive maintenance Contract (Including Spare Parts)

(i) The Purchaser/ Consignees/, Government of West Bengal, may, at his own and sole discretion enter into a Comprehensive Maintenance Contract (CMC) with the Supplier, three months prior to the completion of Warranty Period, at the contracted price, for a period of five (5) years after the expiry of the warranty period as per the details given in clause 12.2 of GCC, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract. The CMC will commence from the date of expiry of Warranty period. The CMC includes preventive maintenance including testing & calibration as per technical/service/operational manual, labour and spares.

(ii) The supplier shall visit each consignee site as recommended in the manufacturer's technical/ service operational manual, but at least once in three months during the CMC period for preventive maintenance.

(f) Training of the Purchaser's personnel, on-site, in assembly, start up, operation, maintenance and/or repair of the supplied Good. This must be carried out at the time of installation of Equipment.

ii) **Availability of Spare parts**

The Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:

(a) such spare parts as required for maintenance of the equipment during Warranty and CMC period, providing that this election shall not relieve the Supplier of any warranty obligations under the Contract; and

(b) In the event of termination of production of the spare parts:

(i) Advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and

(ii) Following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings and specifications of the spare parts, if requested.

(b) Suppliers shall ensure the availability of spare parts for ten years. Inventory of the Spare parts required for 8 years.

Delivery & Completion Schedule:

i. **Delivery to Consignee (see Consignee Distribution List below) within 60 days from the date of issue of the Purchase Order/Contract.**

ii. **Installation, Training & Commissioning:**

Satisfactory installation, training & commissioning as per the Consignee Distribution List (**see Consignee Distribution List below**) within **15 days** from the respective dates of delivery of the goods (one week extra will be given for site inspection)

Terms of Delivery:

CPT final destination as per Consignee Distribution List below

Please note:

a) The responsibility of arranging all required documents, including Custom clearance (if applicable), Road Permits etc. is of the Supplier.

b) Installation of Medical Equipments will be at the Hospitals/Medical Colleges as per the Consignee Distribution List.

c) The Consignee Receipt Certificate (CRC) will be issued to the Supplier within 72 hours of the delivery at the Consignee address.

d) Liquidated Damages (LD) will be calculated separately on: (1) delay in the delivery of the Goods to the consignees; and (2) delay in installation attributable to the supplier.

e) With regard to charge of liquidated damages (LD) for delay in delivery of goods, the onus of proof will be on the supplier for establishing that delays were not due to reasons attributable to him, whereas in post-delivery installation, in case of delay, assumption of non-readiness of site at consignee locations shall ordinarily prevail unless there is specific evidence /information/material to the contrary.

Note :-

1. Functional demonstration of all the offered goods shall be required to be arranged by the bidder, at his cost, before the Bid Evaluation Committee for technical evaluation, as when requested to do so by the Bid Evaluation Committee.

Please note that the functional demonstration of the equipment is purely at the discretion of the Bid Evaluation Committee and its input shall be treated as

supplementary / corroborative in nature and will not be a substitute for technical evaluation of the document submitted along with the bid.

3. Technical Specifications

Schedule 1 - Transport Ventilator

1. Basic machine should have modes of CMV, Assist CMV, SIMV and CPAP with PSV during SIMV.
2. Should be capable of allowing different settings/alarms, preferably with knob control.
3. A single control knob should adjust all controls and alarms. Front panel lock to prevent accidental and unauthorised change of ventilation parameters should be available.
4. Ventilator should be self contained with built-in turbine (air supply), to run the unit independently without any additional air source.
5. Ventilator should operate from AC, internal battery or optional external battery source. Internal battery should take over the unit (including air source) automatically for at least 120 minutes including air source during power failure, provision to extend batteries by adding batteries external batteries.
6. Ventilator should be compact.
7. Fast triggering / Bias flow for flow triggering in the range 10-20 LPM.
8. Should have the facility for manual and sigh breath.
9. Mechanical over pressure relief value should be available as back up to high pressure limit, alarm for added safety to patient.
10. Monitored parameters should include Exhaled Tidal volume, exhaled minute volume, PIP, MAP, PEEP etc.
11. Should have variable apnea back up ventilation whenever apnea is detected.
12. Ventilator should work from 200 – 250 V should have a sound level less than 50 db
13. Should include built in air source.
14. Must be CE or USFDA approved product
15. Warranty – 2 years; CMC – 5 years;

Schedule 2 - Elisa Reader & Washer

The ELISA System consisting of ELISA Reader with built-in Printer with RS 232 interface and Automatic Washer.

A. Elisa Reader

Hardware Specification

Optical System: Digital Light Control

8 - 12 measurement channels including 1 reference channel

Measurement time: Single or Dual wave length - maximum 8 seconds per wave length

Measurement range: 2.500 abs (400 - 700 nm)

Indication Range: 0 - 2.999 abs.

Accuracy: 0.000-1.000 abs, ± 2% and ± 0.005 abs.

Resolution: 0.001 abs.

Grating/Filters (wave length range tolerance +/- 5%):
Narrow band interference.
Essential: 405, 450, 492,578, 630, 700 +/-5 nm.
Desirable: 550 & 690 nm.
Both are to be easily interchangeable.

Light Source:

Halogen Lamp 10W - 40W with a pre-failure lamp warning.

Detector: One silicon Photo detector, for each channel

Wave Length Accuracy: Plus minus 2nm

Linear Shaker: With Different Speeds

Display: 16 digit alphanumeric fluorescent.

Key board: 19 membrane

Software Specification

Operating modes:
0 - 15 user programmable tests permanently stored
Single or dual wave length measurement with facility for kinetic measurement.
Storage of immediately preceding measurement.
Plate shaking mode for sample mixing 0 - (selectable speed and time)

Blank Modes:
Flexible blank mode setting.

Evaluation modes:
Table of optical densities replicates.

Matrix Modes:
Matrix -/x/t
Matrix-/0-0(range)
Matrix -/f/(floating cut off)

Difference Mode:
Absorbance of each well in even numbered column subtracted from those of odd numbered columns.

Curve fit Modes:
3 - 8 standard in single or duplicate wells.

Interface Software:

LIN/LIN, LIN/LOG, LOG/LOG, or Auto curve transformation with ability to edit the standard curve.

8 to 12 way string orientation or Kinetic modes

Printer

Hardware:

Bi-directional 300 - 9600 baud with inbuilt printer and having facility for external printer, with RS 232 interface. Two printer parallel centronics.

Software

Number of readings 2.30 time between reading with variable speeds shaking before and between each measurement.

Prints the maximal slope of the reaction rate and the filter abs. of maximal slot for each well.

Numeric or graphic print out

Power voltage: 220 - 240 voltage, 50 Hz

UPS: Uninterrupted Power Supply system of 30 minutes back-up with maintenance free battery.

Filters to be provided in closed result modes:
Compartment dust free
Table of optical densities.
Delta DD
Graphic.
Reaction Rate/V - max.
Adjustable for different microplate geometrics.

Accessories:

- Halogen Lamps (10 - 40W) - 2 Nos.
- Thermal Rolls - 10 Rolls.
- Dust Cover for ELISA System - 1 No.

- Set of pipettes consisting of single channel variable volume colour pipettes with volume range 0.5 - 10ul; 5 - 40 µl; 40 - 200 µl; 200 - 1000 µl.
- 8 channel variable volume colour multichannel pipettes with volume range 5 - 50 µl and 50 - 300 µl pipettes should offer easy in lab. Calibration, tip quick ejection, click volume setting and with high accuracy and precision.

B. Automatic Programmable ELISA Washer for Microplate and or Strip

Hardware:

Manifolds 8 or 12 channel and autoclave.
Microplate 8 - 12 channel and strips.
Power: 220 to 240 volts, 50 Hz.

Software:

- **Wash Method:** Plate or strip mode, plate shaking, overflow washing, aspiration, crosswise aspiration, bottom washing and aspiration and disinfection programmes.
- **Programmes:** Minimum 50 user programme
- **Wash cycle:** up to 8
- **Dispensing volume:** 50 - 1000 ul.
- **Soak Time:** 0 - 99 second in strip mode.
  0 - 59 minutes in Plate Mode.
- **Speed:** 8 steps

Power voltage: 200 – 240 voltage, 50 Hz.

UPS: Uninterrupted Power Supply system of 30 minutes back-up with maintenance free battery.

Certification: CE/US FDA

Schedule 3 - I.C.U. VENTILATOR

Microprocessor based state of the art unit with following specification is needed.

1. Should be able to use in both adult and paediatric patients.
2. Must be able to operate in CMV, SIMV, CPAP & NIV modes with
   a) Volume control ventilation should be available in CMV/SIMV mode.
   b) Pressure control ventilation should be available in CMV/SIMV mode.
   c) PSV in SIMV/CPAP mode.
   d) Provision of Non Invasive ventilation (Pressure control as well as pressure support)
   e) Should have auto flow/auto mode/ASV/APRV/APV/Biphasic air way pressure, etc. modes of ventilation.
   f) Should have provision of Inverse ration ventilation.
3. Ventilators should be able to operate with pneumatic gas source as well as compressor(original). Later must be a standard part of equipment. UPS backup (on line) of one hour for compressor must be provided.
4. Battery backup for at least one hour must be there.
5. Should be capable of allowing different settings/alarms, preferably with knob control.

6. Patient Monitoring:
   a) Breath by breath display of at least pressure, flow, Volume Vs. time & pressure.
   b) Volume pressure or flow volume loops.
      Should be able to give trending of selected parameter for upto 24 hours at least.

   c) Display of Ventilation/patient parameter& alarms.
      i) Display should be on colored TFT/LCD Touch screen
      ii) They should be visible from reasonable distance
      iii) Display should be adjustable for optimal visibility.
      iv) Capable of displaying min. of 2/3 wave forms/curves at a time.
   d) There must be a provision for calculation and display of respiratory mechanics like:-
      i) Compliance/resistance.
      ii) Dynamic mechanical monitoring.
      iii) Plateau pressure.
      iv) Auto PEEP.

Pressure volume tools.

7. Setting. Machine must have provision for following settings.

a. Tidal volume : 10 to 2000 ml
b. Respiratory rate : 6-60 cycles/min.
c. Flow : 6 l/min to 150 l/min
d. Flow pattern : square, decelerated sine wave
e. Inspiratory Plateau : 0-60% inspiratory time
f. PEEP/CPAP : 0-35 cm H_2O
g. Pressure support : 0-70 cm H_2O
h. O2 : 21-100%
i. Trigger sensitivity : flow 1-10 lpm all patient initiated breath
   pressure: 1-10 cm below PEEP (optional)

j. I.E. Ratio : Inverse ratio up to 4.1
   : apnoca backup
k. 100% oxygen : for at least 2 minutes for suction.
l. Ultrasonic nebulizer : inspiratory pause & expiratory Pause.
m. Provision of automatic tube compensation

8. Alarms:- must have following alarms
   a. Pressure min/max - O2 Minimum/high oxygen.
   b. Low exhaled tidal volume
   c. High respiratory rate - Low peep/CPAP pressure.
   d. Patient disconnection – Apnoea ventilation.
   e. Main power, air, oxygen supply failure.

9. Machines having power on self test and extended self test for safety will be preferred.

10. Should be upgradable.
11. Must be CE and USFDA approved product.

12. Following accessories must be provided with the machine.

a. Reusable patients filter (2 at least)
b. Patient's circuits (reusable) Adult (4 in nos.) and Paediatric (4 in nos.).
c. Water traps and nebulizer.
d. Humidifier and wall air water traps with all accessories.

13. Warranty – 2 years CMC – 5 years;

Schedule 4 - Instrument Steriliser

Sr. No	SPECIFICATION
1.	Portable high speed microprocessor controlled rapid autoclave suitable for sterilization of unwrapped instruments, wrapped instruments, packs and special cycle for hand pieces.
2.	It should have two programmable cycles to process wrapped/unwrapped, dry/undry, RE-DRY, Prion program, Bowie Dick test, Pump test etc. It should be class B sterilizer.
3.	The programmed cycles should have selection of 2 temperatures (135°C and 121°C) and pressures (186 kPa and 104 kPa).
4.	It should have a microprocessor based fault detection circuit for monitoring all functions of sterilizer during a cycle, giving necessary signals to alert operator.
5.	It should be fully automatic and have a DRYING cycle.
6.	The chamber size should be 24 litres +/- 5%.
7.	The equipment should be compact.
8.	It should have 3 or more Air removal purges prior to sterilization.
9.	It should have inbuilt reservoir to store water required to produce steam.
10.	It should incorporate all safety features possible, including fault detection circuit, continuous monitoring of chamber temperature to prevent overheat condition.
11.	It should display message, if sterilization cycle is interrupted by power loss, by operator, or by unit malfunctioning.
12.	The display indicates cycle selected, cycle temp and exposure time for selected cycle. During cycle, display should show messages describing status of cycle.
13.	During sterilization mode, it should have LED display for remaining cycle time, temperature and pressure.
14.	It should have space for 3 stainless steel instrument trays usage and should be provided along with a set of 3 stainless steel trays with rack and an autoclave box for putting the material for sterilization.
15.	Microprocessor should indicate problems / malfunctioning of autoclave automatically and error messages should appear.
16.	It should meet the requirements of ASME Boiler and pressure vessel code.
17.	The equipment should be BIS / CE certified conforming to *EN610-1:2001 EN61010-2:2001 (* Medical Electrical equipment – Part 1-2 General requirement for safety – collateral) and should conform to ISO 13485:2003*.
18.	Warranty: 2 years; CMC : 5 years

Schedule 5 - Ultrasonic Cleaner

1. Construction: External AISI 304 stainless steel and Internal AISI 316.
2. Tank capacity: usable volume of approximately 40 litres. Should allow fitting of instruments up to 600 mm of length. Each unit should be supplied along with wire-mesh basket and stainless steel lid.
3. It should have a large stainless steel basket with 6 rubber outlets, to connect tubing of any diameter and plastic stands to hold the instruments
4. Should have minimum eight ultrasonic transducers with operating frequently from 28-34 KHz placed underneath the tank for an optimum spread of ultrasonic across the whole tank volume, for a effective cleaning of all the instruments in short times
5. Should have minimum eight washing programs, each selectable by a pushbutton, that can be used to wash canulated instruments and non canulated instruments at the same time
6. Should have Pause facility for washing programs
7. Should provide for Water load, water drain and water levelling operations
8. RS232 printer output with printer to keep record of performed washing cycles.
9. Should have alarm and safety features for water level control, cover closure control, water temperature control, sensor failure control.
10. Cleaning programs parameters should be adjustable as per following:
    i. Time: from 1 to 99 minutes
    ii. Heating: from 20 deg C to 69 deg C
    iii. Water flow: off, linear, pulsed, mixed
    iv. Time parameters according to the selected type of flow
11. Automatic water drain after selected number of cycles (from 1 to 99) or function excluded.
12. The control panel should have the following:
    i. LCD alphanumerical display
    ii. keyboard
    iii. Water level (min, max, over) and cover closure light indicators
13. Should be able to work on 230/50 Hz Electric Power Supply
14. Should be provided with transparent Lid/Cover
15. 2 years warranty and 5 years CMC

Schedule 6 - PAEDIATRIC LAPAROSCOPE SET

1. Paediatric High definition 30 degree Laparoscope:	Qty
Telescope Made with high quality sapphires and the latest rod lens technology for excellent transmission and detail recognition, these scopes are also made with a triple tube shaft design to enhance durability. Ideal eyes optics create improved color rendering, center to edge resolution, depth of focus and less image distortion resulting in superior image quality Straight forward telescope, 30 degree enlarged view, size: 3.5 – 4.0 MM rod lenses system ,Length:25- 27 cms, Autoclavable, Fiber optic light transmission incorporated.	**01**
Telescope Made with high quality sapphires and the latest rod lens technology for excellent transmission and detail recognition, these scopes are also made with a triple tube shaft design to enhance durability. Ideal eyes optics create improved color rendering, center to edge resolution, depth of focus and less image distortion resulting in superior image quality Straight forward telescope, 0 degree enlarged view, size: 3.5 – 4.0 MM rod lenses system ,Length:25- 27 cms, Autoclavable, Fiber optic light transmission incorporated.	**01**
2. Pediatric Laparoscope hand Instruments:	
Trocar & Cannula: Cannula size : **3.9-4.2 mm diameter**; should have multifunctional valve and automatic valve to prevent damage of sharp instruments and tip lens while passing through the cannula valve. It should have stopcock for CO2 insufflation. Trocar should have pyramidal tip with pin holes near the tip for safety outlet of CO2 gas.	**04**
Veress Needle: Veress needle of working length 10-12 cm with luer lock.	**02**
Grasping Forcep Fenestrated: Atraumatic serration, fenestrated, grasping forcep with unipolar connection, insulated sheath, handle without ratchet. All the parts should be dismantable for appropriate disinfection.. Length between 20-25cm, size: 3-3.5 mm.	**02**
Grasping Forcep Atraumatic: Atraumatic grasping forcep with unipolar connection, insulated sheath, handle without ratchet. All the parts should be dismantable for appropriate disinfection.. Length between 20-25cm, size: 3-3.5mm	**01**
Unipolar curved Marryland dissecting and Grasping Forcep: Kelly curved dissecting and grasping forceps insulated, atraumatic, working length between 20-25 cm, size: 3-3.5mm, dismountable into handle, working tube with insert. Handle without ratchet.	**02**
Scissor curved Unipolar: METZENBAUM curved scissor, connection for unipolar HF cable, dismountable into insert, tube and handle. Working length between 20-25 cm, size: 3-3.5mm, handle without ratchet.	**01**
Insert curved scissor: Scissor curved inset to fit with main curved scissor.	**02**
Micro Hook Scissor Unipolar: Hook scissor, with connection for unipolar HF cable, dismountable into insert, outer	**02**

tube & handle. Working length between 20-25cm, size: 3-3.5mm, handle without ratchet	
L Hook HF: L-shaped hook dissector with unipolar HF connection. Size: 3.0mm	**02**
Spatula/Blunt HF dissector: Spatula/Blunt dissector with unipolar HF connection. Size: 3.0mm	**01**
Two Way Suction irrigation cannula, size: 3-3.5mm, with special handle with trumpet control for irrigation and suction with silicon tubing.	**01**
Needle Holder: Macro needle holder with tungsten carbide insert, ergonomic pistol handle, with disengageable ratchet, jaw curved to left, size: 3-3.5mm, length : 20-25cm for use with suture material.	**02**
Unipolar HF Cable: Unipolar HF cable suitable to connect with forcep and electrosurgical unit.	**02**
3. High Definition Camera Control Unit:	
It should have Pure digital signal with high definition video of 1920x1080p (min) native resolution and progressive scan technology both on camera head and console. Image System: **1/3" Progressive Scan CCD** Pixels: **1920 X 1080p pixels per chip (min)** a. Camera control unit with 3 chip HD camera head having HD CCD chip of same aspect ratio of 16:9. b. Pure Digital signal with high definition video(1920*1080 P) with aspect ratio 16:9 with DVI-D, RGB, S-VHS video output. c. Integrated Flexible Scope filter d. Progressive scan technology e. Brightness Control f. Aperture Control g. Automatic digital Image Enhancer h. Should have integrated optical / digital zoom lens 14-30mm, to increase and decrease the size of image which should remain in focusing zone, without readjusting the focus, and without any loss of resolution. i. Should have Integrated Gain, shutter, Enhancement, white balance with brightness control. j. Should have peripheral control on CCU for k. Should have USB or /Image Capture Module interface for direct storage of still & video sequences and to print the still images or provide digital recording separately. In both the cases, i.e. USB or / Image Capture Module, the quality / resolution of the data should not be compromised. l. The camera head should have integrated zoom and focus lens/rings to make it fully soakable. m. Should be IEC 601-1, CE according to MDD.	**01**
4. Paediatric Laparoscope HD Monitor Unit:	
26''High Definition Medical grade Color Monitor, resolution 1920 X 1200 dots/pixels with DVI-D, RGB,S-VHS input, Option for wall mounting and desktop in same unit. Should have same aspect ratio of 16:9 or 16:10 of the endoscopic HD camera system. Fast response time(5-12ms)	**01**

Number of colors:16.8 million Luminance: 400cd / m2. Contrast ratio: 1000:1 Vertical/Horizontal Viewing Angle:178 degree	
5. Paediatric Laparoscopic Xenon Light Source:	
Xenon light source of 300 Watts Should be able to produce color temperature of 6000 K Should have continuous manual adjustment of light output. Should have standby mode and automatic recovery of last setting of intensity of light. Should be able to display lamp life in digital form and should give visual indication for replacement of xenon lamp in case of lamp life of 500 Hrs is over. Should be certified IEC 601-1 and CE according to MDD.	**01**
Xenon spare lamp of 300 Watts suitable for Xenon light source	**02**
Fiber Optic Light Cable: Fiber Optic light cable of actual bundle size: 4.5-4.8mm, length : 250-275cm.	**02**
6. Paediatric Laparoscope CO2 Insufflator:	
Electronic CO_2 insufflators with pin index connection Should have an adjustable flow rate of 0 to 20 ltr. Per minute and a pressure range adjustable between 0-30 mm Hg. Preset and actual value for Pressure and flow should be displayed together on the front panel in digital display. Constant monitoring of intra-abdominal pressure; any overpressure is released immediately with back flow with acoustic alarm. Unit should have in-built heater to warm up and preheat the CO2 gas. Should be able to select either central supply (4.5Kg/cm2) input pressure from central supply as well as direct connection to high pressure CO2 cylinder and should indicate the right inlet pressure of CO2 gas supply by bar graph on front panel of machine. Unit should produce immediately acoustic alarm in case of sudden blockage in the gas outlet tube or wrongly placed Veress Needle. Provided with Silicon autoclave tubing with luer attachment. Instrument should work on a universal power supply of 100-240 V, with a frequency of 50 Hz single phase. Electrical Safety certification – IEC-601-1 and CE acc to MDD	**01**
HP Hose: Suitable high pressure hose pin index to connect the gas to insufflator, length : 1.0 meter.	**01**
CO2 Cylinder: 5 Kg. Carbon Dioxide bottle with pin index connection with wrench	**02**
7. Electro Surgical Unit/Cautery:	
Microcontroller based Digital Electrosurgical Unit/Cautery having peak power of minimum of 300 Watts, with Digital Display/LCD display Push Switch/touch Control Provides Consistent Performance for General Surgical Procedures & delivers its Optimum & Reliable Power by using latest & Advance Technology, Convenient for all Surgical Application. Unipolar as well as Bipolar facility having operating frequency between 450-700 KHz. Must have Mono-polar & Bipolar Coagulation Facility on the unit .	**01**

Must have **R**eturn electrode **A**pplication **M**onitoring system - With This the contact quality between Silicon neutral electrode, and the patient skin the moment the contact between Plate & Patient reduces it stops the HF delivery with an audio visual indications. Facility for pure cut adjustable from 0-300 watts, blend/hemostatic effects variable up to 0-250 watts, endocut/lapro/gastro cut upto 200 watts, Bipolar cut and coagulation variable up to minimum of 100 & 120 watts respectively. Spray & Forced coagulation facility should be there up to 120 watts. In Accordance with IEC 60601-1 and IEC 60601-2-2; CE certified. The ESU will be preferred from OEM. CF output for maximum patient safety. Unit should be supplied with three paddle footswitch, patient plate, patient cable, hand control pencil with standard accessories.	
8. Suction Irrigation Unit for Paediatric Surgery:	
Compact suction and irrigation unit having Irrigation pressure not less than 400mmHg & Suction pressure not less than (-0.75mmHg). The irrigation and suction flow should not be less than 2.5L/M. The unit should be supplied with 1.5 Litre glass bottle with bottle cap and stand; The unit should be supplied with 1.0 Litre irrigation bottle sterilizable in autoclave with bottle cap attachment to connect tubing. The unit should be supplied with reusable irrigation and suction silicon tubing set 2 Nos. each. Should be IEC 601-1, CE according to MDD.	**01**
9. Laparoscope trolley:	
Suitable video trolley to be supplied for mounting equipments having minimum three self in addition to with one drawer, with antistatic wheel casters, front lockable, high grade of electrical insulation and earth protection. 5 Ampere socket, 10Nos, inbuilt with trolley to connect all electronic devices. CO2 bottle stand should be integrated with trolley. Potential equalization connection to be provided at least 8 points.	**01**
10. Storage and Sterilization Tray:	
Sterlization/Disinfection Tray: Disinfection/Sterlization tray with sieve tray to lift. Size: 27”x7”x5”(LxBxD	**04**
Suitable Autoclavable plastic tray double tray for sterilization and storage for hand instruments of minimum 20 hand instruments preferably from OEM.	**02**
Formaline Chamber: Formaline Chamber made of Virgin Acrylic 4.5mm thickness; size:26”x8”x8”(LxBxH) with three tray, for sterilizing the laparoscope, preferably with three tray	**02**
11. Uninterrupted Power Supply:	
Suitable UPS with One hour backup time with SMF Batteries. Should be able to work on wide input range between 160-270 VAC at frequency between 50Hz ± 2Hz, Should use PWM technology with power conversion with single transformer arrangements with an output of 220VAC ± 5%, protection of overload, short circuit and low battery. Should have indication on front panel for mains load/battery load/ battery overload-low and MCB protection in case of short circuit. ISI/CE approved good quality Indian make.	**01**

Environmental factors

1. Shall meet IEC-60601-1-2 :2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility or should comply with 89/366/EEC; EMC-directive.

2. The unit shall be capable of operating continuously in ambient temperature of 20-30 deg C and relative humidity of 15-90%

3. The unit shall be capable of being stored continuously in ambient temperature of 0-50deg C and relative humidity of 15-90%

Power Supply

1. Power input to be 220-240VAC, 50Hz fitted with Indian plug
2. UPS of suitable rating with voltage regulation and spike protection for 60 minutes back up.

Standards, Safety and Training

1. Should be FDA, CE, UL or BIS approved product
2. Manufacturer should have ISO certification for quality standards.
3. Comprehensive training for lab staff and support services till familiarity with the system.
4. Comprehensive warranty for 2 years with no fault warranty in the first year and 5 years CMC after warranty including UPS.
5. Shall be certified to be meeting safety standard IEC 60601-2-18 part 2 Particular requirements for the safety of endoscopic equipment.
6. The core Operating laparoscope like HD laparoscope Telescopes 30 degree, Laparoscope HD camera control unit, Xenon light source, CO2 Insufflator, hand instruments , Video monitor should be from single manufacturer for system compatibility.

Documentation

1. User/Technical/Maintenance manuals to be supplied in English.
2. List of important spare parts and accessories with their part number and costing.
3. Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet. Any point ,if not substantiated with authenticated catalogue/manual, will not be considered.
4. Certificate of calibration and inspection.
5. List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.
6. Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.

Schedule 7 – 30 degree Laparoscope (for Urology)

Specification		
S. No.	**Description**	***Qty***
1	**30 degree Laparoscope autoclavable for urology:**	
	Made with high quality sapphires and the latest rod lens technology for excellent transmission and detail recognition, these scopes are also made with a triple tube shaft design to enhance durability. Ideal eyes optics create improved color rendering, center to edge resolution, depth of focus and less image distortion resulting in superior image quality	
	- Optimal centre-to-edge resolution for enhanced picture quality	
	- Advanced rod lens technology	
	- Higher image definition	
	- Improved detail recognition	
	- Adaptors for all conventional light cords included with the scope	
a	5.0 mm 30º Autoclavable Laparoscope, 33cm Length	*1*
b	10.0 mm 30º Autoclavable Laparoscope, 33 cm Length	*1*
	CE/USFDA certified product	

Schedule 8 - Power Drill

S No	**Description**	**Quantity**
	Drilling & Reaming Hand piece	**1**
1	Should have Single Hand Piece for Drilling & Reaming Handpiece, Dual Trigger	
	Should be Powered through 'Maintenance Free' d.c. brush-less motors	
	Should have Pistol grip, Fully Cannulated, 360 deg attachment insertion	
	Should have Accurate Variable Speed control through the Trigger	
	Should have Forward / Reverse ,Oscillation control on the Hand-piece	
	Should be Sterilizable by Steam Autoclave, ETO, Formalene & 10 Minutes through Flash Autoclave	
	Should have Drill speed of minimum 900 rpm and maximum torque of 150 lbs for Reaming	
	Should have Built in Drill- Reamer switch	
	Adaptors for Drill & Reamer	
2	Jacobs Chuck and Key	2
3	Synthes reamear	2
4	Hudson Modified Trinkle Reamer	2
5	Pin Collect	2

6	**Sagittal Saw**	**1**
	Should be Powered through 'Maintenance Free' d.c. brush-less motor	
	Should have Pistol grip, Dual speed saw for a wide range of cutting	
	Should have Tool-less assembly of Blades,	
	Should have Accurate Speed control through the Trigger,	
	Should have Plane of Blade movement adjustable in 8 Steps of 45 deg.	
	Should be Sterilizable by Steam Autoclave, ETO, Formalene and in 10 minutes through a 'Flash' autoclave.	
	Should have Free speed of 11000 - 13000 cycles per minute.	
7	Sagittal Saw of four types of Blades	50
8	**Reciprocating Saw Handpiece**	**1**
	Shouls have Maximum speed of 19000 cycles per minute.	
	Should be Powered through 'Maintenance Free' d.c. brush-less motor	
	Should have Tool-less assembly of Blades,	
	Should have Accurate Speed control through the Trigger,	
	Shouls be Sterilizable by Steam Autoclave, ETO, Formalene and in 10 minutes through a 'Flash' autoclave.	
9	Recip Saw Blades of three types	25
10	**Electric Powered Heavy Duty System**	**1**
	Irrigation Console, 220 Volts Electrically operated system with integral Irrigation Pump & Hand piece Cassette.	
	Touch Screen controls, Color Graphic display of the settings of the unit.	
	Should have Capability to recognize the Hand-piece, Digital display of Speed & Preference control of Speed	
	Should have Braking & Screen Displays, Capability to Operate Two Hand pieces Foot pedals - Simultaneously.	
	Should be Upgradeable & have capability to run Micro Powered System and Arthroscopy Shaver System.	
	Should have Fully Customizable User Preferences.	
11	**Foot Switch**	**1**
	Bidirectional, Water proof	
	Controls for Forward, Reverse and Oscillation mode	
	Controls to change from One mode to another.	
12	**Connecting Cord**	**2**
	Thin, Flexible, Flash Autoclavable	

Schedule 9
64 Channel Polysomnograph System

S. No.	Specification
1	**1 Description of Function** 1.1 Polysomnography and sleep studies are performed to diagnose illness or syndromes related to sleep
2	**2 Operational Requirements** 2.1 System complete with all hardware and software is required
3	**3 Technical Specifications** 3.1 Total Number of Channels should be : 64 or more a) EEG input should be : 32 b) The machine should have EMG input of: 5 c) The machine should have EOG of : 2 d) The machine should have ECG : 7 (3 Physical and 4 derived) e) Nasal /oral/Airflow : 1 f) Flow (Thermal) : 1 g) Respiratory Effort , Zrip 2 h) Snoring, Microphone: 1 i) Body Position 1 j) CPAP Pressure 1 k) Limb Movement 2 l) SaO2 1 m) Pulse rate 1 n) Actimeter 2 o) Light sensor 1 p) NCV (Nerve Conduction Velocity) q) Sensors 5 sets (each set includes flow)
	3.2 Sensor- pediatric and adult, microphone, pulse Oximeter sensor and leads) of ECG, EEG, Leg & chin EMG, EOG, NCV.
	3.3 Additional 8 DC channels for external peripherals like capnography, PH, blood pressure Monitor etc.
	3.4 Other Technical Specifications a) Pressure transducer for nasal air flow b) Automatic chin EMG referencing c) Integrated Pulse Oximeter. d) on screen impedance check e) Pulse transit time (PTT) f) Adjustable gain and notch filter. g) Full compressed raw data stored on all channels. h) Facility for fully synchronized and integrated patient video recording and monitoring. i) Video camera should be networked j) Real time Access to studies for analysis currently being recorded from the review/recording station. k) Data replay software operates on Microsoft, Window XP, Window Vista, and

	Window 7 professional. l) Computer interface through LAN for integration into hospital network. m) Portable recording workstations can operate anywhere/on standalone basis. n) Screen resolution from 800 X 600 to 1200 X 1600 o) User definable Montages, montage changes p) User configurable reports-All night dump sleep stage summary, Arousal summary etc. q) Automatic Sleep Staging with manual override, Respiratory / PLM¡¦s analysis, Neurological events. r) Independent, selectable time basis for upper & lower portions of the screen enabling the see fast moving traces like EEG and Slower respiratory waveforms on the lower half. s) Titration device should have modes like: CPAP, BIPAP, Adaptive ventilator.
	3.5 Computer : Pentium IV, 128 MB RAM, 17" VGA Color Monitor , 1.4 MB FDD, 40 GB HDD, CD ROM Drive, Windows 98 compatible, HP Deskjet Printer.
4	**4 System Configuration Accessories, spares and consumables**
5	**5 Environmental factors** 5.1 Shall meet IEC-60601-1-2:2001(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility. or should comply with 89/366/EEC; EMC-directive.
	5.2 The unit shall be capable of operating continuously in ambient temperature of 20- 30 deg C and relative humidity of 15-90% 5.3 The unit shall be capable of being stored continuously in ambient temperature of 0-50deg C and relative humidity of 15-90%
6	**6 Power Supply** 6.1 Power input to be 220-240VAC, 50Hz fitted with Indian plug 6.2 UPS of suitable rating with voltages regulation and spike protection for 60 minutes back up.
7	**7 Standards, Safety and Training** 7.1 Should be US FDA / European CE marked / BIS. 7.2 Manufacturer should have ISO certification for quality standards. 7.3 Comprehensive training for lab staff and support services till familiarity with the system. 7.4 Electrical safety conforms to standards for electrical safety IEC 60601-1 (OR equivalent international/national standard) General requirement for Electrical safety of Medical Equipment.
8	**8 Documentation** 8.1 User/Technical/Maintenance manuals to be supplied in English. 8.2 List of important spare parts and accessories with their part number and costing. 8.3 Compliance Report to be submitted in a tabulated and point wise manner clearly mentioning the page/para number of original catalogue/data sheet. Any point, if not substantiated with authenticated catalogue/manual, will not be considered. 8.4 Certificate of calibration and inspection. 8.5 List of Equipments available for providing calibration and routine Preventive Maintenance Support. as per manufacturer documentation in service/technical manual.

Schedule-10 - Gel System for DAT

System consists of Centrifuge, Incubator & Reader

Specifications for ID-Centrifuge

- Manual ID-Card centrifuge should able to perform centrifugation of all the tests for Cross Matching on coombs and enzyme phase to pick both IgG & IgM Antibodies, Blood Grouping based on Sephadex gel technology.
- Centrifuge head should accommodate minimum 12 ID Cards having V-shape tubes.
- Rpm, time and function should be displayed (LCD).
- Centrifuge should be microprocessor controlled.
- Equipment should have automatic balance control of the centrifuge head.
- Speed of centrifuge should be 1030 ± 5 rpm.
- RCF (Relative centrifugal force) of centrifuge should be 85 ± 1g.
- Power/ Frequency- 110V-240V/ 50-60Hz.
- Centrifuging time should be prefixed for 10 minutes.
- System should open automatically door lock assembly after end of the process.
- CE complaint according to IVD Directive 98/79/EC
- Instrument should be able to perform specialised tests like Partial RhD testing, D^{weak}, Single Rare antigens, PNH, Sickle Cell (HbS), Heparin/PF4 Ab Test (HIT), Syphilis antibody test etc.

Specifications for ID-Incubator

- Instrument should be able to incubate the ID Gel Cards at 37ºC.
- Capacity of Incubator should be of accommodating of one ID-Centrifuge head (6 or 12 or 24 ID-Cards) or 3 ID-Card racks (36 ID-cards).
- Should be microprocessor controlled, bench top model with individual timers for 3 Separate Batches.
- Temperature should be fixed at 37ºC (± 1ºC).
- Should be compatible for the incubation time set up from 1min to 99min.
- CE Complaint according to IVD Directive 98/79/EC

- Power/Frequency- 110-240V/ 50-60Hz

Specifications for ID Gel Card Reader

- Semi automated Immunohematology analyzer should able to read and interprets all the tests based on Sephadex Gel Technology for Cross Matching on coombs and enzyme phase to pick both IgG & IgM Antibodies, Blood Grouping, partial D typing, Antibody screening & Identification etc.

- The instrument should able to read and interpret one ID-Card in one working step within two seconds.
- Should have the capacity for 1 ID-Card with 6 "V' bottom shaped tubes based on Gel technology.

- Able to perform more than 50 different kind of test including specialised tests like Syphilis antibody test, PNH, Heparin/PF4 Ab Test (HIT), All Rare antigens ID cards, Partial RhD, D^{weak} etc.

- It should be able to do full positive identification of the Cards.

- The instrument should be able to validate, store, print and sent the results to host computer.

- There should be complete traceability of tests, results and operator.

- All operations are monitored by Maestro Master Software for print outs, storage of results and link to host computer.

- Instrument should be able to perform more than 50 different kind of test including specialised tests like Partial RhD testing, D^{weak}, Single Rare antigens, PNH, Sickle Cell (HbS), Heparin/PF4 Ab Test (HIT), Syphilis antibody test etc.

- Exhibit different gradation of reaction (4+, 3+, 2+, 1+ & -ve).

- 1KVA UPS with minimum half an hour back up to be provided.

The company should have the following combinations of cards/Reagents which can be used on the above quoted machine:

- LISS/Coombs cards with 6 'V' bottom shaped micro tubes containing polyspecific AHG (rabbit anti-IgG, monoclonal anti-C3d, clone no C139-9) For Coombs Cross-match, IAT, DAT based on Sephadex Gel technology.

- The technology should not have any washing step and should avoid non specific results.

- The technology should pick up both IgG & IgM antibodies.

- Sephadex Gel based Monospecific DAT to pick up IgG, IgA, IgM, C3c, C3d on the red cells.

- Sephadex Gel based Rare Antigen cards (complete profile as well as single antigen cards).

- Syphilis Antibody detection cards with 6 'V' shaped bottom tubes containing Sephadex Gel ID tests for specific Antibodies directed against treponemal antigens. ID-PaGIA "syphilis " polymer particles, sensitized with recombinant antigens TpN15, TpN 17, TpN 47, red colored in ready to use suspension.

- Specificity and sensitivity > 99% compared to TPHA method.

- Gel based Forward/Reverse Blood grouping cards with 6 'V' shaped bottom tubes and should able to pick up (DVI) phenotype.

- The company should offer complete panel of ready to use liquid red cell reagents for antibody screening (with asian antigen Mia+) & identification (normal and papanized one), including the Anti-D prophylaxis panel for Rh negatives.

- Elution kit for eluting the auto antibodies attached to RBCs.

- The extended antisera for finding the partial RhD.

- The company should offer Anti-D Reference reagent for quality control of Coombs Card

- The company should offer third party Quality Control reagents for QC of Gel cards.

Additional requirements:

- **Warranty for 2 years, followed by CMC for 5 years**
- Product should be US FDA or CE or BIS approved
- Standard accessories / spare parts should be provided
- Reagents and consumables for 3 months should be provided with the product
- Separate Quote should be given for supply of reagents & consumables beyond 3 months

General conditions :

- System should be quoted complete with appropriate stabiliser or UPS with one hour battery backup.

- The recommended maintenance kit, for trouble free operation and maintenance of the system for a minimum period of three years should be quoted.

- The consumables including reagents should be available for supply in local currency and preferably within 48 hours after ordering.

- The after sales service should be available preferably within 24 hours and with trained service personnel from Kolkata or nearer locations.

- Reasonable installation base should be available preferably in West Bengal/eastern parts of India.

- Installation and commissioning shall be done free of cost.

Schedule 11 - Flash Autoclave

- Stand-alone bench top autoclave, Class-B, minimum 40 Litres, automatic, Single door self sealing with high quality silicon gasket.
- Chamber diameter 30 cm depth 55 cm minimum.
- Pre-set automatic cycles for unwrapped instruments. Wrapped instruments/packs
- Slow exhaust and drying cycles.
- Two automatic programmes, approx 2.2 bar at 134 degree C and 1.1 bar at 121 degree C. The equipment should have automatic pressure control switch. Power off if water is insufficient in main chamber, machine will not start/run if water is insufficient and alert is given.
- Panel reports temperature pressure & time. Pressure display should be analogue.
- Fit with 5 L water reservoir, manual fill..
- Power shut-off upon completion of cycle.
- Double safety door locking device.
- Safety feature protect against over pressure and over temperature. Emergency key to stop programme & exhaust chamber pressure.
- Audible and visual alert upon cycle interruption or completion.
- Unwrapped cycle time Cold 30 min hot 20 min approx.
- Device is produced by ISO 9001 certified company.

Spares:

- One Set of 4 matching drums, suitable tray set of 3, test strip one set, one pack of 100 paper sheet, tape roll for paper, one gasket and, user manual

Schedule 12 – FUNDUS FLUORESCEIN ANGIOGRAPHY

1. Digital camera for capturing retina images in colour, red-free, infra-red & fluorescein modes.
2. Anterior segment & anterior chamber imaging for cornea, iris & sclera.
3. Scanning digital Ophthalmoscope.
4. Field of view for retina 50^0
5. Field of view for posterior segment imaging 30^0 x 40^0
6. Focus range : 15 Diopters spherical
7. Light source : Halogen lamp (6V / 35 W)

8. Video / Camera system ; Digital colour and B/W camera : 25fps

9. Display modes : single frame, movie

10. PC, Key board – English, Mouse, USB, Printer.

11. Operating System : Windows XP

12. Networking : Eye explorer software

Schedule 13 – C-Arm Low End

Specification of High Frequency Mobile C-ARM IITV System) - (Low End):

The system should have the below mentioned specifications:

1. I.I.T.V. SYSTEM:

a) The image intensifier should be of latest series
b) It should be of 9 inches triple field i.e. 9 inches /6 inches /4.5 inches
c) The centre resolution should be minimum 48lp/cm.
d) The circular grid should be fixed on the I.I. to improve image quality.

2. C-ARM STAND:

a) It should be ruggedly built and should be of good design
b) It should have 2 separate steering for controlling back and front wheel movements
c) It should also have the below mentioned movements.
   - Horizontal travel should be minimum 220mm
   - Orbital movement should be 115°
   - Panning movement should be ±12.5°
   - Focus to I.I distance should be 900 mm
   - Vertical movement should motorized of 430 mm
   - Focus to I.I Clearance should be 800 mm
   - C-Arm rotation should be ±180º

3. CCD CAMERA:

The CCD camera should be ½ inch and of 0.3 lux; It should have resolution of 625lp/field.

4. MONITORS:

a) Medical grade monitor 17 inches or more on trolley – 2 Nos.
b) The monitor trolley should be provided for mounting 2 monitors and should have 2 shelf for keeping memory and stabilizer.

5. GENERATOR:

a) It should be microprocessor controlled digital system with display.
b) It should be of high frequency with output of 5KW and frequency of 40KHz.
c) The KV should be from 40 to 110KV.
d) The fluoroscopic mA should be from 0.1 to 3.0mA or more.
e) The system should have fluoroscopy mode like

- Manual flouro mode
- Pulsed flouro mode with facility to select time interval between the pulses from 1 sec to 10 secs,
- Auto Dose Rate Control in fluoroscopy mode by which mA & KV should be set automatically as per the thickness of the organ.

f) The digital fluoroscopic timer should be incorporated with arrangement of auto cut off of exposure after 300secs.
g) The radiographic mAs range should be from 1 to 200mAs.
h) The x-ray tube should be dual focus static anode. The focal spot of the tube should be 0.3mm and 0.6mm. It should have anode heat storage capacity of 200KHU. It should also have inherent filtration of 0.7mm Al eq.
i) The system should have backlit LCD display of flouro mA, KV, timer & radiography mAs should be provided.
j) The image reversal, image rotation, functions should be operatable either from control panel or with a remote control.
k) Memory functions like store recall/ image transfer should be operatable from control panel as well as from memory unit.
l) There should be independent selection of mA and KV & mAs.
m) The control should have indicator for Power, Overload, X-Ray & Tube heating
n) The system should be upgradable to latest functions

6. IMAGE MEMORY:

a) Digital Image Processing & Memory system with PC or a USB Drive.
b) It should have 100 images.
c) It should have at least 100 permanent images storage capacity
d) It should have image integration function to reduce the image noise

ESSENTIAL ACCESSORIES:

a) Detachable cassette holder for taking x-rays on 8 inches x10 inches or 10 inches x 12 inches films
b) Lead aprons, Thyroid Shield, Lead Goggles (12 nos each)
c) Servo stabilizer – 1

The System should have DVD recording facility as externally or internally.

7. Warranty for 2 years and 3-10 years for CMC after warranty. The prices for CMC shall be quoted at the time of tendering process. The Prices of CMC shall be considered for the evaluation process.

8. The equipment should be FDA approved / CE certified / AERB approved.

The following features would be optional (i.e. not mandatory) and will not constitute criteria for evaluation:-

1. Semi Automatic Mode
2. Boost Fluoroscopy Mode

Schedule 14 - Oxygen Concentrator

1. The unit comprises of ABS moulded cabinet with superstructure base & compressor plate. It should have moulded handgrip for easy transportation and free moveable roller base for maximum manoeuvrability.

   Supply with reusable minimum 5 meter long medical grade oxygen tube.

2. It must have circuit breaker with reset function.

3. It should have variable flow rate of 10 L/mp with paediatric flow meter of graduation / calibration of 0.125 L/min.

4. The output pressure should be 20psi or more, based on atmospheric pressure of 14.7 psi.

5. The system should deliver with a purity level more than 90%.

6. The unit must give alarm if purity level decreases or below 90%.

7. The unit comprises of visual & audible alarm for hi/low oxygen level, power failure, pressure drop.

8. The following filter must be supplied along with the unit

   - Gross particle cabinet filter
   - Compressor filter
   - Bacterial filter

9. **Electrical requirement:**

   The unit shall be able to operate at 160-240 v, 50 Hz, & supplied with Indian power code. Each unit should be supplied with suitable Voltage Stabiliser.

10. **Standard Accessories (1 set to be supplied with each set of equipment):**

    One set of Standard Accessories consists of the following:

Humidifier Bottle:	02 nos
Nasal canula with external tubing:	01 nos
Spare Bacterial filter:	01 no.

11. **Additional Accessories (1 set to be supplied with each set of equipment):**

    One set of Additional Accessories consists of the following:

Humidifier Bottle:	02 nos

Nasal canula with external tubing: 04 nos

Spare Bacterial Filter (compressor): 03 nos

12. **Standard & Safety:**

12.1 Complete unit should conform to internationally accepted quality standards and should carry the certification of the applicable product quality standard such as FDA, CE, {CE mark for *Conformite Europeenne*, (French for "European Conformity")}, UL or BIS etc. The supporting document in this regard should be submitted and follows IEC 60101. Certificate to be submitted before award.

12.2 Company should have local service facility. The service provider should have the necessary equipments recommended by the manufacturer to carry out preventive maintenance test as per guidelines provided in the service/maintenance manual.

12.3 Warranty for 2 years and 5 years for CMC after warranty.

13. **Documentation**

13.1 User/Technical/maintenance manuals to be supplied in English.

13.2 List of installation base with their contact numbers.

13.3 Certificate of calibration and inspection from Parent company/OEM supplier.

13.4 List of equipments available for providing calibration and routine preventive Maintenance Support. As per OEM documentation in service/technical manual.

13.5 List of important spare parts and accessories with their part number and costing.

13.6 Log book with instructions for daily, weekly, monthly and quarterly maintenance checklist. The job description of the hospital technician and company service engineer should be clearly spelt out.

Schedule – 15 - Diathermy with Vessel Sealing system

PARTICULARS
✓ **MACHINE SHOULD BE COLOUR LCD BASED WITH VESSEL SEALING FACILITY WITH INBUILT CAUTERY WHICH CAN BE OPERATED BY TOUCH SCREEN /MANUAL CONTROL.** **VESSEL SEALING SECTION :-** ✓ UPTO 7-MM VESSEL SEALING WITH PULSATING TECHNOLOGY. ✓ Should have LCD / LED SCREEN.

- ✓ UNIT SHOULD HAVE FACLITY OF BIPOLAR OUTPUT ON LIGATES OUTPUT TO AVOID INSTRUMENT CHANGE.
- ✓ UNIT SHOULD HAVE FACILITY TO HAVE DUAL MONOPOLAR CUT & COAGULATION SETTING INDEPENDENTLY.
- ✓ AUTO-STOP AFTER VESSEL SEALED WITH AUDIBLE VISUAL ALARM.
- ✓ FIVE DIFFERENT MODES FOR VESSEL SEALING –
- ✓ NOMINAL FREQUENCY RANGE : 330- 660 khz, or better.
- ✓ VESSEL SEALING REUSABLE LAPROSCOPIC PROBE 5 MM 2 nos.
- ✓ SHOULD PROVIDE VESSEL SEALING RESUABLE OPEN CLAMP. 2 nos.
- ✓ INCASE OF VESSEL/TISSUE IS NOT SEALED PROPERLY MACHINE SHOULD GIVE RE-GRASP AUDIO-VISUAL ALARM .

E.S.U (CAUTERY) SECTION :-

- ✓ **VARIOUS MONOPOLAR CUTTING MODES**:- Pure Mode , Low cut, Blend Mode (with adjustable cutting and coagulation Ratio) Gives the surgeons Varying degree of hemostasis for better cut.

- ✓ **SPECIALIZE ENDOCUT MODE** :- Minimum Nine Different Endo-Cut Levels for various endoscopic and other general procedures. Must have interrupted sound indication for cutting and coagulation.

- ✓ VARIABLE BLEND MODES : - It should have variable Blend Mode in which cutting & Coagulation ratio can be varied depending on Surgery.

- ✓ **ARGON PLASMA COMPATIBILITY.**
- ✓ **PROGRAMMING FACILITY FOR MINIMUM 99 DIFFERENT SURGERIES.**
- ✓ **MONO POLAR COAGULATION MODES:-** Six Coagulation Modes like High Spray, Low Spray, Fulgurate , Desiccate & soft for different surgeries & better hemostasis
- ✓ **BIPOLAR COAGULATION:- Four Mod**es like Cut, Force, Micro & Autostop . Must have Auto Stop Facility providing controlled Coagulation which Measures the tissue I**m**pedance and Automatically Stops H.F. Delivery after obtaining "optimum coagulation" without charring & less lateral thermal spread**.**
- ✓ FACILITY FOR UNDER WATER MONOPOLAR CUTTING & COAGULATION.
- ✓ POWER SUPPLY SAFETY **:-** Switching power supply device accept the wide range of input voltage as per Indian standards.
- ✓ MICRO CONTROLLER BASED CUTTING AND COAGULATION FUNCTION.
- ✓ DISCREAT CONTROL FOR MONOPOLAR AND BIPLOAR.
- ✓ SEPARATE ISOLATED OUT PUT FOR MONO POLAR AND BIPLOAR.
- ✓ MONOPOLAR CUT:- 300 W
- ✓ MONOPLOAR COAGULATION :- 120 W
- ✓ BIPLOR COAGULATION :- 120 W

The following accessories should be supplied with the unit:

- Footswitch double pedal
- Twin patient plate
- **CLAMPS FOR OPEN SURGERY SEAL SAFE TECHNIQUE Reusable should be useful for 100 – 200 Cycles**

- Clamp Curved Length 18cm
- Clamp Curved Length 23cm

- **BIPOLAR SCISSORS FOR OPEN SURGERY**
  Reusable should be useful for 100 – 200 Cycles
  - Bipolar Scissors Curved 23cm
  - Bipolar Scissors Curved 21cm

- **BIPOLAR FORCEPS FOR OPEN SURGERY**
  - Bipolar Forceps straight Blunt
- **BIPOLAR ACCESSORIES**
  - Footswitch with Reed Contact
  - Bipolar Cable
- **MONOPOLAR DIATHERMY ACCESSORIES FOR OPEN SURGERY**
  - Electrode Handle with 5m cable
  - Electrode set of 5 consisting of
  - 4mm Lancet Electrode straight
  - 4mm Knife Electrode
  - 4mm Needle Electrode
  - 2mm Ball Electrode
  - 4mm Ball Electrode

- **BIPOLAR LAP ACCESSORIES**
  Handle with shaft 340mm, Dia 5mm

  Clamp "Grasping Forceps" exchangeable electrode, fenestrated, 340mm

  Cut Scissor – type, exchangeable electrode, 340mm

- Interface Cable

- Footswitch signal cable

- Pressure reducer with flexible tube and quick action coupling 2.5 to 4.5 bar, tube 1m/3ft

- **HANDLE**
  Should have two Pushbuttons for coagulating and cutting
  Should have Connecting cable 4.5m/15 Ft in length for HF Current and argon gas
  Autoclavable (134 Deg C)

- **ACCESSORIES FOR OPEN SURGERY**

  LANCET ELECTRODE FOR OPEN SURGERY
  Working Length should be 40mm
  Lancet Length should be 14mm

- **LANCET ELECTRODE FOR OPEN SURGERY**
  Working length should be 40mm
  Lancet Length should be 14mm

- **NEEDLE ELECTRODE FOR OPEN SURGERY**

  Working length should be 40mm

  Unit should be CE/USFDA approved

  Safety and other standards:

	Interference immunity in accc.w.IEC 801 specs
MDD Class	IIb
Mark of conformity	CD 0297 in conformity w.93/42/EEC
Patient leakage current	Within the limit values specified in DIN IEC 601,part 1
Housing leakage current	Within the limit values specified in DIN IEC 601 Part1

Schedule 16 - Liquid Nitrogen Cryosurgery Unit

Sr. No	SPECIFICATION
1.	Should be a liquid nitrogen Cryosystem for use in Gynaecology/dermatology/ Ophthalmology/ Proctology etc.
2.	Should be equipped with; i. Exchangeable jets ii. Plastic fingertip trigger iii. Safety and regulation valve iv. Apparatus cover with control valve, vacuum isolated outside tube and inside suction plastic pipe v. Dewar vessel vacuum isolated vi. Cryogun of capacity 500 ml vii. With a liquid nitrogen storage tank of capacity of 20 litres viii. Repumping apparatus with a controllable valve in the head of the apparatus to maintain in the storage tank the pressure of 20-30 kPa required for withdrawal of liquid nitrogen from the storage tank to the cryogun.
3.	**Should be supplied with the following sterilizable probes:**
4.	For Dermatology; I. One set of Jets of Diameter: 0.4 mm, 0.6 mm & 0.8 mm and II. one set of long jets of diameter 0.9 mm/Length 100 mm, diameter 0.9 mm/Length 70 mm and diameter 0.9 mm/Length 40 mm III. one set of contact tips(Spray tips) of diameter 20 mm, 10 mm, 5 mm,3mm & 2 mm equipped with a tailpipe to provide freezing without direct contact of the tissue with the liquid nitrogen.
5.	Including 2 years warranty followed by 5 years of CAMC.

Schedule 17 - HIGH END DOPPLER ULTRASOUND UNIT

1. The system should be latest sate of the art high-end with full digital technology and should be for the whole body applications which would include abdominal, peripheral vascular, small parts imaging such as Thyroid, Intra-cavity applications, etc. system should be trolley mounted.

2. The system should incorporate facility for high resolution 2D, 3D, 4D, M-mode, PW, HPRF PW, Color Doppler imaging, Power Doppler imaging, Duplex & Triplex imaging modes. The system should be capable of simultaneous dual display of B-mode & color mode.

3. All transducers should have Broad Bandwidth technology for extremely high resolution imaging. Frequency range of Transducers should be 2-16 MHz or more. All transducers should have multifrequency selection (Preferably more than three).

4. The system shall have three universal transducer ports with electronic switching capability allowing any transducer to be connected to any port.

5. The system should have 100,000 or more digital processing channels and the system should have 256 Grey Scale or more.

6. The system should have a scanning depth of 28 cms. or more.

7. The system should have a high dynamic range more than 180 dB.

8. The system should be able to support at least 3 transducers with universal ports allowing electronic switching between transducers.

9. The system should support Convex, Linear, Sector & Mechanical Volume Probes.

10. The system should have a very high frame rate of at least 500 frames per second in B mode and more than 300 fps in /Color mode. Please specify.

11. The System must have integrated high – resolution TFT/LCD/Single monitor of 17 Inches or more with tilt and swivel facility.

12. The system should have Tissue Harmonic imaging & should be available in Convex, Linear, Sector & Volume probes.

13. The system should be able to work in combined mode of Harmonic Imaging and Real time Compound Imaging to get excellent Image quality. The system shall offer Tissue Harmonic Imaging in Power Doppler Imaging mode.

14. The system should have contrast Harmonic Imaging and should have optimization settings to detect the Contrast Agents.

15. The system should have real time frequency and Spatial Compound imaging technology with multiple lines of sight to obtain the image at real time frame rates for improved visualization and better image quality.

16. The system should have image processing algorithms to analyse between targets and artifacts to as to sharpen target anatomy and reduce the speckle and artifacts for improved image quality.

17. The system should have a full alphanumeric keyboard.

18. The system should have cine loop review facility in individual and mixed modes cine loop greater than 4000 frames and greater than 30 seconds of spectral Doppler and M mode. System should have 120 GB or more HDD.

19. The system should have the facility of digital storage and retrieval of B/W and color image data on built-in CD/DVD /USB Drive.

20. Power Doppler Angio for perfusion studies should be available for visualization of flow in small vessels and system should be able to acquire flow in small blood vessels at very high frame rate.

21. The system should have automatic gain and STC/TGC controls in B-mode and velocity range and base line shift for Doppler through one touch operation.

22. The system should have trapezoidal imaging and steerable imaging for 2D image, Color box & Doppler with linear probe. Please mention the angle of steering for 2D & Color Box.

23. The system should have Panoramic imaging.

24. The System should be DICOM compatible.

25. The system should have advanced 3D imaging package with the following :

    a) Multi planner Views (MPR).
    b) Surface & Volume rendering.
    c) 3D grey scale (B-mode).
    d) 3D power angio mode & 3D Color Doppler Mode.

26. The system should have Advanced 4D imaging package such as Live 4D, Single sweep, Multi-view (CT slice technology), STIC, Cavity mode etc. and system should be able to support all type of volume probes such as Convex Volume, TVS Volume Probe & Linear volume probe.

27. The system should have automatic real time quantification of Doppler Parameters like velocity, frequency, time, heart rate, slope, flow volume, pulsatility index, resistivity index, peak velocity, average volume, point value, area and diameter flow volume etc.

28. The system should have support real time acquisition and display of at least two image planes simultaneously with color by incorporating volume Transducer for this function.

29. The system should have extensive calculation software package for general measurements, OB/Gynae, Vascular, small parts & cardiac application.

30. Equipment with above mentioned features to be offered with following broad bandwidth probes & accessories:
    A. Broad band convex array transducer with frequency range 2-5 MHz. or better.
    B. Broad band linear array probe with frequency range 7-17 MHz. or better.
    C. Broad band transvaginal/transcretal probe with frequency range 5-9 MHz. or better.
    D. Convex Volume probe with frequency range 2-6 MHz. or better.
    E. Color Laser Printer.
    F. B & W thermal printer with 10 high density paper rolls.
    G. 2.0 KVA on line UPS for complete unit with 30 min. backup.

31. Please attach the original manufacture's product catalog and datasheets. Photocopied, computer generated catalogue and datasheet will not be accepted.

32. Two years complete warranty followed by Five years of CMC for the entire equipment, probes and accessories which should include service as well as parts.

33. List of installation – the bidders to provide list of installation of the quoted model in (National and International).

34. The short listed bidders will have to give demonstration of their quoted model before finalizing the evaluation of their bids.

Schedule 18 - PUVA & nb-UVB Combined Chamber

1. The Compact Chamber should have 21 PUVA and 21 Narrow Band Lamps of 2 meters length Lamps of 120W each.
2. The Chamber Exterior Dimensions should not be less than:
   Closed: 1,267 X 1,327 X 2,310 mm
   Open: 1,357 X 1,539 X 2,310 mm
3. The interior Dimensions should not be more than: 939 X 2,000mm
4. The weight of the unit should not be more than: 405 kg
5. The height of the unit should not be more than 2400 mm
6. The Chamber should be One Phase; 230V; 50HZ; current consumption should be 28A.
7. The chamber should operate in ambient Temperature of 0º to 35ºC
8. The Chamber should have the following Safety features:
   a) UV sensor System.
   b) Operated via Touch Screen.
   c) Shut Off when Opened.
   d) Viewing Panel.
   e) Grab Rails.
   f) Acrylic Glass Panels.
9. The Chamber should have the following Efficiency and Comfort for the Patients:
   a) Cooling and Filter System.
   b) Mirror- Finish Interior Reflectors
   c) Illumination.
   d) Interior Operating Panel.
   e) Double Wing Door.
   f) HR Foam Pedestal

10. Protective UV goggles- 2 Nos.
11. Equipment should confirm to CE / US FDA / BIS.

Schedule 19 - Rapid Automated Blood Culture System

- It should be fully automated walk-away & continuous monitoring one.
- System should have continuous agitation for optimized recovery of organisms.
- Detection principle should be based on sensitive Fluorescent Technology.
- System should have minimum 120 sample positions.
- Antibiotic Neutralizing media should not have any masking-effect in gram-staining of positive samples for ease of gram staining interpretation to release primary report(s).
- System should have non-invasive technology; i.e. No puncturing of the sample bottles during sample interpretation.
- System should have Continuous Agitation, to ensure faster growth of organisms.
- System should monitor each sample positions in every 10 minutes.
- System should have provision of incubation temperature from 35- 37^0 C.
- System should have capability of analyzing delayed vial entry up to 48 hours stored at room temperature.
- System should have simple handling procedure.
- System should have Auto QC facility to avoid any manual daily maintenance.
- System should have more than 12 media specific algorithms to ensure early detection of micro-organisms.
- Should have special media for Pediatric samples and sterile body fluid samples.
- Should have special Lytic Anaerobic Media for increased detection of partially phogocytised-orgnasims.
- Should have special media for optimal recovery of yeast, fungi and mycobacterium from Blood samples.
- Should have inbuilt incubator facility.
- Should have special Antibiotic Neutralization resin media.

Schedule 20 - Distillation Apparatus

Technical Specifications

- The glassware should be made of high quality **borosilicate** glass to withstand high heat
- Apparatus capacity should be of 4 lit/Hr
- Should be Double stage
- Should have metallic Stand and other accessories. Stand should be made of rust free material.
- Standard heating elements of 2.5 - 3KW to be used
- An automatic cut off device should be attached
- Heater should be of quartz for immediate output of distilled water. Apparatus should consist of high quality Borosilicate Boiler with built in water leveller. Output water should be pyrogen free with conductivity <1 micro siemen, pH 6.9-7, Distillate Temp 65-75^{o} C

System Configuration Accessories, spares and consumables

- Metal stand
- Automatic Cut-off Device Automatic Cut off device or **safety control module**

Power Supply

- Power input to be 220-240VAC, 50Hz

Documentation
Manufacturer should have ISO certification for quality standards

Schedule 21 - Analytical Balance

It should have weighing capacity of 220 gm, Readability: 0.1mg
Colored Touch Screen Display
Standard RS 232C for the PC interface
Fully automatic Time and Temperature internal Calibration with built in weight
Pace-setting interfacing flexibility - including Ethernet, Bluetooth (wireless connection) and PS/2 - for efficient data capture and easy network integration.
Technical data:
Capacity : 220gm
Readability : 0.1mg
Repeatability : (+/-) 0.05 mg
Linearity : (+/-) 0.2 mg
Weighing Pan size : 78*73mm
Grid Type Weighing Pan
Response time : 3sec.
Display : Colored Touch screen

IR Sensors for hands-free operation for personnel security and Automatic draft shield opening and closing
Warns if the balance is not correctly leveled to ensure the accuracy of results.
Automatic and detachable draft shield
Detachable and adjustable Terminal
Alphanumeric data entry of 4 ID's
Integrated automatic safety functions for external routine operations
QM-Toolbox, including user administration and password protection
Power Supply
Power input to be 220-240VAC, 50Hz
Standards, Safety and Training
Should be FDA/ CE/ UL or BIS approved product
Calibration/Acceptance test certificate from the factory required and certificate from department of weights & Measurement.

Schedule 22 - Cold Centrifuge

1 Description of Function

1.1 The Refrigerated Centrifuge (RC) is a mechanical device used to separate biological substances of differing densities.

2 Operational Requirements

2.1 Programmable microprocessor control system with self-diagnostic feature and IVD certified

3 Technical Specifications

3.1 Maximum speed: Approx. 4,000 rpm Swing-out / 14,000 rpm Angle
3.2 Maximum RCF: 3,000 x g Swing-out / 20,000 x g Angle
3.3 Maximum capacity: 4 x 250 ml Swing-out / 30 x 1.5/ 2 ml Angle
3.4 Temperature range: -10°C / + 40°C.
3.5 Digital displays for Programme No, temperature, Speed, RCF, & Time.
3.6 At least 34 program memories
3.7 Timer 1 - 99 minutes and hold position
3.8 At least 10 acceleration / 10 braking rates
3.9 Maintenance free induction motor
3.10 Totally CFC free refrigerant fluid and insulation
3.11 Angle Rotor: 30 x 1.5 / 2.0ml, with adaptors for 200/500/600ul
3.12 Angle Rotor: 6x85ml with adaptors for different sizes and aerosol tight lid
3.13 Swing-out Rotor: 4x250ml with aerosol tight cap and adaptors for different sizes

4 System Configuration Accessories, spares and consumables

4.1 As specified

5 Environmental factors

5.1 Shall meet IEC-60601-1-2 :200(Or Equivalent BIS) General Requirements of Safety for Electromagnetic Compatibility.
5.2 The unit shall be capable of operating continuously in ambient temperature of 10 -40deg C and relative humidity of 15-90%
5.3 The unit shall be capable of being stored continuously in ambient temperature of 0 -50deg C and relative humidity of 15-90%

6 Power Supply

6.1 Power input: 220-240V/ 50 Hz AC Single phase or 380-400V AC 50 Hz Three phase fitted with appropriate Indian plugs and sockets.

7 Standards, Safety and Training

7.1 Should incorporate Safety Features for Imbalance detection, lid interlock, over temperature, rotor over speed etc
7.2 Electrical safety conforms to standards for electrical safety IEC-60601 / IS-13450
7.3 Should be FDA or CE approved product
7.4 Should be compliant to ISO 13485: Quality systems - Medical devices - Particular requirements for the application of ISO 9001 applicable to manufacturers and service providers that perform their own design activities.
7.5 Should comply with IEC/TR 61010-3-020 : Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 3-020: Conformity verification report for IEC 61010-2-020:1992 Particular requirements for laboratory centrifuges"

Schedule 23 - Carbon Dioxide Laser

1. It should be a Carbon Dioxide laser with a wavelength 10.60 Micro meters, Infrared
2. It should be Microprocessor based 40 watts power with a sealed CO2 laser tube
3. It should have continuous, single pulse and repeat pulse tissue exposure modes
4. It should have an average continuous power of 0.1 - 40 watts, super pulse power of 0.5 - 15 watts with a peak power of 350 watts, the beam delivery should be through a light weight carbon fiber, 7-joint, fixed mirror, spring balanced arm.
5. The reach of the arm should be at least 120cm with 360 Deg rotations
6. It should have a soft touch panel
7. It should have a timed exposure of following durations on time (continuous and pulser) - 0.1 to 1.0 sec, on time (super pulse) - 0.05-1.0 sec
8. It should have a repeat delay, Off time, 0.01 to 1.0 sec with at least 5 user defined memory settings
9. It should have an incisional hand piece of 50mm working distance with a spot size of 0.8mm, 125mm working distance with a spot size of 0.2mm
10. It should have at least two bacterial filters, five laser safety glasses
11. It should have a flash scanner with multifunction control keys and user interface with preset recommendations for parameters and delivery devices for different applications
12. It should have a user friendly graphic display to provide step by step operating instructions
13. It should have a scanned area size range of 0.3 to 15mm, beam dwell time on tissue of 0.3 to 0.5 msec, have circle, square and ring scanned area shapes

14. It should have a self contained closed loop cooling system, compatible with 230V, 3A, 50 Hz power supply
15. It should be supplied with a micromanipulator with following requirements:
16. It should have an optical design to assure perfect co-incidence of the hene and CO2 beams even at highest microsurgical magnifications, should be easily adjustable and should have variable working distance from 200mm to 400mm, should have continuously variable defocus with a user adjustable defocus limiter, its joystick handle should be tension adjustable and autoclavable, should be user selectable for left or right hand control, should be lightweight, Not more than 490 grams to maintain balance of the surgical Microscope, Should have a minimum spot size of 160 microns, should have a focus range of 0.16mm - 0.27mm
17. It should have maximum defocus range of 2.8mm - 4.6mm, should have a power transmission of greater than 90% with unlimited power input, It should have a robotic laser microsurgery system with following requirements, should have beam scan shape; linear & curved incisions: 0.3mm to 3.0mm in length (user defined), 0.7mm to 3mm for papillomatosis, It should have a penetration depth of 0.2mm to 2mm (User defined), It should provide following incision widths: at 200mm: 0.16-2.8mm , At 250mm:0.19-3.2mm, at 300mm: 0.21-3.7mm, at 350mm: 0.24-4.1mm, At 400mm: 0.27-4.6mm
18. It should have ear aeration delivery system for laser-assisted myringotom and related applications which should includes:
19. Handset with built in smoke evacuation channel, video imaging camera, adaptor, assortment of 8 otolam speculum, Arm balancing system, cart, protective case, 14" video monitor-240V, Light source 220V, Light source adaptor
20. It should have nasal probes kit which should include:

    Nasal and laryngeal probe fiber coupler, straight nasal probe, straight nasal probe with 90 deg RH mirror, Straight nasal probe with 90 deg LH mirror, Straight nasal probe with smoke evacuation, straight nasal probe with 90 deg RH mirror and smoke evacuation, straight nasal probe with 90 deg LH mirror and smoke evacuation, 20 deg angled nasal probe, Non sterile fiber insert for nasal probes in plastic tube with CAO sleeve, Catheter suction tube, lens cleaning tissues, Pipe cleaner, Soft bristle brush, Folding magnifying glass

21. It should have oral, Pharyngeal and nasal hand piece set which should include 230mm Handpiece unit (CVD optical unit, Ports holder, conical main extender, contamination collector), Extra conical main extender, backstop extender-3 nos, Tip extender -3 nos, Straight Tip, Kamami nasal Tip-3 nos, Kamami tonsil Tip-3 nos., 90 degree angled mirror tip extender, cleaning SH, Tygon tube (8mm ID, 1.5m Long) W/ reducer fitting
22. It should have laser bronchoscope delivery system which should include four different tubes and bronchoscope to laser coupler. The bronchoscope delivery system should be used in both conventional bronchoscopy and CO2 laser surgery applications. For laser surgery, the coupler should attach the bronchoscope to the laser units articulated arm and directs the beam through the bronchoscopes working channel following accessories should be included:
23. Bronchocope tube (3.5mm x 250mm,6mm x 350mm, 8mm x 450mm, 9mm x 350mm) with laser coupler assembly with 2 reusable window slides, Univeral cap with window, Instrument guide (permitts massage of conventional instruments when laser is not in use), Auxiilary accessories, spare instrument guide (x3), cleaning brush (x3), cleaning rod (x3) for cleaning bronchoscope , silver polish for metal sheaths and instruments
24. It should have fiber lase flexible fiber delivery system
25. It should have flexible fiber

26. It should have smoke evacuator for smoke evacuation of CO2 laser fumes and should include -

    Pneumatic footswitch, Virosafe 6 filter - 6 hour double port 7/8" and 1-1/4", VTWT324-7/8" tubing with wand and tip-2 nos, SMLOF50-Laser mask 0.1mm filtration media (Flat mask)

    Warranty – 2 years; CMC for 5 years

Schedule 24 – Inspissator

A shallow polish stainless tray rested inside a tank containing water. The whole under surface of the tray is in contact with water at a constant temperature which ensures that the temperature of the McCartney bottles with media is also constant. The surface of the tray is a series of sloping steps (at 9 degree angle above the horizontal) and will hold 162 universal containers. A blanket is placed over the containers to exclude draughts and a quilted cover provides thermal insulation: both blanket and quilt are made from insect-resistant materials. The temperature of the water under the tray is controlled by a digital immersion thermostat. Accuracy and reproducibility of set temperature are ensured with the digital display of actual and, at the touch of a button, set temperature. The control unit is mounted on a bridge plate over one end of the bath, from which heater, stirrer and temperature sensors project down into the bath. All moving parts are incorporated in the control unit which removable for servicing. The tray and tank are made of polished stainless steel and are fitted in an outer case of laminated wood. A constant level device is fitted is fitted to maintain the water level despite evaporation losses. Specifications: Std temperature: 85c;

Operating temperature range: ambient +5 to 90C.;
Temperature display: LED; Display resolution: 0.1c;
Uniformity: tray surface + or - 0.7c; Heater power: (approx)1.4Kw, 230V; Tank capacity: (approx) 45 lit; Heat up rate 20 to 85 c; 3.5 hours; working area: 1eng/width: (approx) 820/594mm; overall dimensions: (approx) 1/w/h: 1040/600/380mm; Over temperature protection: Fixed cut-out;
Electrical power: 220-240V 50/60 Hz, 1.5kW (approx),
Approx. weight: 25-35 Kgs.

Voltage regulators of appropriate rating to be included for each item to cope with 160-260 V.

Schedule 25 – Vortex Mixer

Adjustable speed: 100 to 3,000 rpm, continuous and intermittent “touch-control” modes, 220-230 Volts , AC, 50HZ; Cup heads size: 25 mm dia. x 22 mm deep for mixing contents in McCartney bottles., Heavy cast-metal base and suction cup to assure stability, prevent “walking”.

Equipment quoted should comply with Indian Standards Institutions Guidelines or any other National or International Guidelines. Voltage regulator of appropriate rating to be included to cope with 160-260 V.

Schedule 26 – Hot Air Oven

Thermostatically controlled, temperature range ambient to 250^0c with fine and coarse adjustment, Memmert type, with fan, digital display, approx. overall size 81 cm (H) x 58 cm (L) x 71 cm (W), internal size 46 cm (H) x 40 cm (W) x 35 cm (D) stainless steel (SS) interiors with supports on three sides for adjustable shelves of size 38 cm x 34 cm, number of shelves: 3, Fan convection to ensure uniform temperature, fitted with load indicator and safety thermostat take over indicator lamp. Temperature variation $\pm 1^oC$, LCD/LED indicator.

The apparatus should confirm to IS :6365-1971 (Reaffirmed 2006) with latest amendments in Indian Standard Specification for Laboratory Electric Ovens or equivalent National or International Standards covering Markings, tests and Safety requirements Voltage Regulator of appropriate rating to be included to cope with 160-260 V.

Schedule 27 – pH Meter

pH range 0-14 with digital display and stand by and calibration mode; hand held , pocket-size with shielded electrode bulb and waterproof housing. 4x 1.4V button cells give 350hrs continuous operation; size 148x28x15mm, 85g (Approx)

Resolution: 0.01
MV range: ± 1999
Accuracy: ± 0.01
No. of Digits: Three

Voltage regulator of appropriate rating to be included for each incubator to cope with 160 – 260 V.

Schedule 28 – Water Bath

Stainless Steel, insulated double walled, inner wall of stainless steel, thermostatic temp. control from ambient to 85 - 90^0 C ($\Delta 0.5^0$)) complete with immersion heater, Aluminium/SS cover, brass drain cock, 220-240 volts AC, 50Hz., Dimensions outside:- (approx)36x41x25 cms; inside:- (approx) 27x30x15 cms; Capacity not given because the dimensions specified are required for the proper functioning of the water bath in the Laboratory for optimum utilization of the space. Power:- (approx) 480W; Digital microprocessor display to set temperature point preventing thermal runaway, seamless reservoir with no welds to leak or rust, see-through cover is hinged and removable, and steeply gabled to accept taller samples. IEC-1010 approved.

Equipment quoted should comply with Indian Standards Institutions Guidelines or any other National or International Guidelines. Voltage regulator of appropriate rating to be included to cope with 160-260 V.

Note :

1) **Any reference to brand of technology/ product, in case it occurs anywhere in the technical specification is purely for indicative/illustrative purposes and should be read as including its equivalent.**
2) **Unless specifically stated otherwise, the product quality requirement in this ICB will be CE ("Conformité Européene") or US FDA or BIS.**
3) **Unless specified otherwise in the Technical Specifications, all offers should include UPS unit or battery backup of at least one hour, as the case may be, with each equipment.**
4) **Offered product catalogue to be attached in original (2 in nos.) with each bid.**
5) **Attach valid quality certification document(s); no self-certifications admissible.**
6) **Quality Management System in conformity with ISO 9001:2008 where specified;**
7) **Product quality standard (CE/FDA/BIS) to be supported by authentic documents; Warranty, its scope and service facilities to be clearly indicated in the documents.**
8) **As part of the technical evaluation of bids, functional demonstration of offered equipment model may be called for by the Purchaser, but the result/outcome thereof shall not be taken as the sole or conclusive evidence of qualification of the bid. Further, all expenses and risks related to such demonstration shall be borne by the bidder. Functional demonstration of the equipment is at the discretion of the Bid Evaluation Committee and its input shall be treated as supplementary / corroborative in nature and will not be a substitute for technical evaluation of the document submitted along with the bid.**

STANDARD REQUIREMENTS

The following requirements with regard to inspection, quality, packing, warranty, maintenance and related services shall commonly apply to all the goods in all the Schedules:

i. INSPECTION OF THE GOODS

All goods shall be subject to inspection and testing by UNOPS or its designated representatives, to the extent practicable, at all times and places, including the period of manufacture and, in any event, prior to final acceptance by UNOPS.

If any inspection or test is made on the premises of Vendor or its supplier, the Vendor, without additional charge, shall provide all reasonable facilities and assistance for the safety and convenience of the inspectors in the performance of their duties. All inspection and tests on the premises of the Vendor or its supplier shall be performed in such a manner as not to unduly delay or disrupt the ordinary business activities of the Vendor or supplier.

Neither the carrying out of any inspections of the Goods nor any failure to undertake any such inspections shall relieve the Vendor of any of its warranties or the performance of any obligations under the Contract.

ii. QUALITY CERTIFICATION

Where ever appearing in the bid document, the “CE certificate” shall be read as:
“CE mark for *conformité européenne*, (French for "European conformity").

iii. PACKING & LABELLING

Packing & Labeling shall follow the standard norms for such equipment. However, details thereof shall be specified at the time of issue of contract to the successful bidder(s).

iv. WARRANTY

Warranty shall always be for the period specified in Technical Specifications, computed from the date of acceptance of the goods. During warranty, cost and responsibility of the transport/shifting of the equipment, in case so required for repair, etc, shall be entirely borne by the Supplier, without any liability on the consignee. In case of such shifting of equipment, alternative working equipment shall be first made available to the consignee to avoid any disruption in the clinical work

v. MAINTENANCE

a. CMC shall be for **4 or 5** years following expiry of warranty, as specified in Technical Specifications.

b.During CMC, cost and responsibility of the transport/shifting of the equipment, in case so required for repair, etc, shall be entirely borne by the Supplier, without any liability on the consignee. In case of such shifting of equipment, alternative working equipment shall be first made available to the consignee to avoid any disruption in the clinical work.

c. Subject to (b) above, CMC services shall be provided at the site of the equipment, within the prescribed response time.

Comparative Data Table

Bidders must complete the right column of the below table and the compliance confirmation statement.

Schedule Nos. 1…….28

UNOPS's minimum Technical Requirements	*Please fill-in*

THE OFFERED PRODUCTS ARE IN ACCORDANCE WITH THE REQUIRED SPECIFICATIONS AND TECHNICAL REQUIREMENTS:

YES NO

ANY DEVIATIONS MUST BE LISTED BELOW:

---

4. Drawings

The Bidding Document includes no drawings.

5. Inspections and Tests

The Vendor shall get the Goods inspected in the manufacturer's works by a competent authority and submit a test certificate and also a guarantee/warranty certificate that the Goods conform to laid down specifications.

UNOPS or its representative shall inspect and/or test any or all item of the Goods to confirm their conformity to the Contract, prior to dispatch from the manufacturer's premises. Such inspection and clearance will not prejudice the right of the consignee to inspect and test the Goods on receipt at destination.

If the Goods fail to meet the laid down specifications, the supplier shall take immediate steps to remedy the deficiency or replace the defective Goods to the satisfaction of the Purchaser.

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