

HSCC (India) Ltd

AMENDMENT No –II Dated 16/06/2015

Sub.: Procurement of Medical Equipment for Kalpana Chawala Government Medical College, Karnal.

Ref: Tender Enquiry No.: HSCC/KCGMC/Medical Equipment/2015/01 dt. 11.05.2015

Bid submission date extended from 03.06.2015 to 29.06.2015/30.06.2015/01.07.2015.

Sl. No.	Description	Revised Schedule		
		OPHTHALMOLOGY	ENT	ORTHOPEDICS
i.	Closing date & time for receipt of tender	29.06.2015, 2.30 P.M.	30.06.2015, 2.30 P.M.	01.07.2015, 2.30 P.M.
ii.	Time and date of Opening of Techno – Commercial Tenders	29.06.2015, 3.00 P.M.	30.06.2015, 3.00 P.M.	01.07.2015, 3.00 P.M.

The amendment based on the queries/requests which have been received from the prospective bidders is provided as below.

All other terms and conditions of the tender enquiry document shall remain unchanged.

Prospective bidders are advised to regularly visit HSCC website/ CPPP website for corrigendum /amendments etc. if any, as these will be notified on these portals only. No separate advertisement will published in the news papers in this regard.

**CGM(Projects),HSCC India Limited
For and on behalf of DGMR, Panchkula**

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REPLY TO PRE-BID QUERRIES

REFERENCE: Tender Enquiry No. HSCC/KCGMC/Medical Equipment/ 2015-01 dt. 11.05.2015

OPHTHALMOLOGY

Sr. No.	Queries by Prospective Bidders	Remarks for any Amendment
A	FIRM 1 & 2:	
1.	Please define "International Quality" for Titanium Instruments.	Amendmened and may now be read as "materials used for manufacturing the instruments should be as per CE requirement & suitable Medical/Surgical Grade material to be used for manufacturing" is made for surgical Instruments only .
2.	The Firm suggests that "All SS instruments should be imported and made from Surgical grade SS" to be deleted & mention "Imported or mention quality standards and mark the grade of steel for quality assurance" for not restricting only foreign origin bidders.	Amendmened and may now be read as "materials used for manufacturing the instruments should be as per CE requirement & suitable Medical/Surgical Grade material to be used for manufacturing" is made for surgical Instruments only . Bidders may quote Indian make high quality Surgical Hand held instruments of export quality; however, the firm should be European CE or US FDA approved/certified.
3	Schedule 1 & 7 are very small nature items & the cost of it is very less as such Manufacturer Authorization Letter & past performance may not be asked.	Manufacturer Authorization Letter & past performance for all items listed under Schedule 1 & 7 are not required except for the item "Perimeter" wherein Manufacturer Authorization Letter & past performance is required.
B	FIRM 3:	
1	Schedule 8, Item No. 22: Ophthalmic Operating Microscope	
a)	Point No. 2: Suggested for changing to "Inclined Binocular Tube" or inclined Binocular Tube" instead of "Inclinable 180deg".	The Technical Specification has been duly ammended, for this item and is enclosed herewith.
b)	Point No 5: Suggested for changing to "Integrated / Modular Slit Lamp....." instead of "Integrated Slit Lamp.....".	The Technical Specification has been duly ammended, for this item and is enclosed herewith.
c)	Point No 9: Suggested for changing to "High Magnetic / Mechanical breaks" Instead of "High Magnetic breaks"	The Technical Specification has been duly ammended, for this item and is enclosed herewith.

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d)	Point No 10: Suggested for changing to “Stand should have programming facility via Touch Screen Panel for setting....” Instead of “Stand should have programming facility for setting....”	No changes for the suggestion made by the firm are acceptable & are not recommended.
C	FIRM 4:	
1	Schedule 1, Item No. 5: Perimeter	
a)	Point No 03: Suggested for changing to “USB Port & integrated HDD” instead of “CD & USB drive.....with Magneto optical Disk Drive”.	The Technical Specification has been duly amended, for this item and is enclosed herewith.
b)	Point No 18: Suggested for changing to “....branded [HP/Samsung] Laser Printer to be supplied from local market” Motorized chinrest, original manufacturer Motorized table with latest Laser Jet printer”.	Local but branded for only Laser Jet Printer is acceptable.
c)	Point No 20: Suggested for changing to “CE or US FDA” instead of “European CE and US FDA”.	The Technical Specification has been duly amended, for this item and is enclosed herewith.
2	Schedule 8, Item No. 22: Ophthalmic Operating Microscope	
a)	Point No 05: Suggested for deleting the point / parameter as the same is of old technology & not required with stereo coaxial illumination system.	The Technical Specification has been duly amended, for this item and is enclosed herewith.
b)	Point No 16: Suggested for changing to “CE or US FDA” instead of “European CE and US FDA”.	The Technical Specification has been duly amended, for this item and is enclosed herewith.
D	FIRM 5:	
1	Schedule 2: Slit Lamp Biomicroscope (Two Nos.)	
a)	Point 1: Slit Lamp may please be amended to Blue Filter, Red Filter, Blue correction filter & Yellow filter.	No changes for the suggestion made by the firm are acceptable & are not recommended.
b)	Point 2: Movement Range should be Longitudinal (in/out) please be amended to 105 mm.	Amendmened and may now be read as “Movement range: Longitudinal (in/out) min 105 mm.” has been made.
c)	Point 3: Light Source illumination device should be 6V; 20 W please be amended to LED.	No changes for the suggestion made by the firm are acceptable & are not recommended.
2	Schedule 5: Indirect Ophthalmoscope	

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a)	Point 17: Inter papillary distance adjustment: please be amended to 54 – 74 mm.	Amendmened and may now be read as “Inter papillary distance range: 54 - 74 mm or better.” has been made.
b)	Point 19: May please amend European CE or US FDA approved.	The Technical Specification has been duly ammended, for this item and is enclosed herewith.
	<i>Besides above Following amendments are applicble:</i>	
1	List of Requirements	Has been amended accordingly & enclosed
2.	Technical Specifications of Automated Visual Field Analyzer – Revised.	Has been amended accordingly & enclosed
3.	Technical Specifications of Slit Lamp Biomicroscope (Two nos) – Revised.	Has been amended accordingly & enclosed
4.	Item “Applanation Tonometer” has been deleted as the same is being provided with Slit Lamp.	Has been amended accordingly “as deletion from List of Requirement” & enclosed
5.	Technical Specifications of Operating Microscope – Revised completely	Has been amended accordingly & enclosed

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The Technical Specifications of the following equipments stands amended as follows:

1. **SCHEDULE 1: Item No. 5.** Automated visual field Analyzer / Perimeter.
2. **SCHEDULE 2: Item No. 10a.** Slit Lamp Biomicroscope (Two nos.).
3. **SCHEDULE 2: Item No. 10b.** Slit Lamp Biomicroscope with video attachment.
4. **SCHEDULE 8: Item No. 22.** Ophthalmic Operating Microscope with TV Unit with Camera

SCHEDULE 1:

Item No. 5.

Automated visual field analyser

1. High quality Gold standard automated perimeter with bowl size 30cm.
2. Maximum intensity 10,000Asb, Bowl illumination 31.5 asb.
3. Should have Internal Hard Disk with minimum 500 GB with back-up facility on External Hard Disk & USB Port.
4. Stimulation duration 200ms, stimulus wavelength broad band visible light.
5. Stimulus/Background colour White on White.
6. Maximum temporal range 90Deg.Suitable for central 30 as well as full field testing.
7. Central field test patterns 30-2,24-2,10-2,
8. Peripheral field test pattern 60-4, Nasal Step.
9. Threshold test strategies full threshold, Fast Pac, SITA or equivalent.
10. Guided progression analysis.
11. Screening test strategies Two zone, Three Zone and Quantify Defects
12. Stimulus Size I-V as per Goldman standards.
13. Glaucoma hemi field test, Hail –Krakau blind spot monitor.
14. Video eye monitoring, Trial Lens Holder, Gaze tracking System.
15. Touch screen on CRT, Keyboard.
16. Motorized chinrest, Original Manufacturer Motorized table with latest Laser Jet Printer.
17. 2 years warranty and 5 years CAMC.
18. Preferably European CE or US FDA approved.

SCHEDULE 2:

Item No. 10a.

Slit Lamp Biomicroscope (Two nos.)

Biomicroscope

Magnification changer: Galilean, 5 steps.

Ocular magnification: 10x or more.

Range of adjusting oculars: +6 to -6 Dioptres or more.

Inter-pupillary distance range: 54 – 74 mm or better.

Slit Lamp Illuminator

Slit height: 1 - 8 mm or more.

Slit width: 0 - 8 mm or more.

Spotlight: 0.2, 1, 2, 3, 5, 8 mm diameter.

Horizontal Arc: $\pm 90^\circ$

Vertical Arc: 5° , 10° , 15° , 20°

Filters: Blue, green (red free), N.D.10%

Movement ranges:

- a. Longitudinal (in/out) min 105 mm.
- b. Lateral (left/right) 90 mm.
- c. Vertical (up/down) 29 mm.
- d. Chinrest range 55 mm.

Slit Beam Diffuser: Yes.

Light source illumination device: 6V; 20W.

Slit decentration: 4° horizontal.

Slit rotation: $\pm 180^\circ$

Light source background illumination: Halogen/LED, with continuous or step adjustment.

Objective tube focal length: 170 mm.

Original hydraulic/electric motorized table.

2years warranty and thereafter 5 years CAMC.

SCHEDULE 2:

Item No. 10b.

Slit Lamp Biomicroscope with video attachment

1. Slit lamp should have illumination from top with the help of tungsten/halogen bulb capable to give illumination of 500000 lux or more, or LED powered, lifetime usage, with tilt facility.
2. Illumination column should be tiltable upto 20 degrees.
3. Fibre optic background illumination.
4. It should have grey, red free, blue and heat absorption filters.
5. Should have applanation tonometer.
6. Beam splitter and mirror housing with monocular tube for camera integration.
7. Should have an integrated imaging system including.
 - a. Slit lamp camera – Minimum 12.2 mega pixel with large 3.0 inch LCD display.
 - b. PC digital system with 21.5 high definition LCD and colour printer.
 - c. 8GB SD/SDHC memory card and power cable.
 - d. Should have integrated flash tube, synchronized to slit background illumination and shutter release
8. Software for photo management.
9. Facility for viewing into microscope at 20 degree to horizontal to enable examiner to keep his head in fatigue free position.
10. 5 step magnification (6.3X, 10X, 16X, 25X, 40X).
11. Slit width to change continuously from 0-14 mm.
12. Slit height to change continuously from 1-14mm.
13. Test mark fixation star to be present.
14. Eyepiece magnification 12.5X.
15. Range for adjusting eye- pieces: +8 to -8.
16. IPD adjustment 52-80 mm.
17. Focus attachment preferable to refocus the slit on the fundus by adjusting mirror position.
18. Microscope must have 13 degree stereo angle with stereo variator facility.
19. Six extra bulbs and fuses.
20. Original motorized table with accessories.
21. Should be preferably USFDA or European CE approved product.
22. Comprehensive Guarantee/Warranty for 2 years and there after comprehensive AMC (including all spares and labour) for 5 years

SCHEDULE 8:

Item No. 22.

Ophthalmic Operating Microscope with TV Unit with Camera

1. Compact microscope body with high quality apochromatic Optics.
2. Inclinable Binocular tube with 10X or better magnification eye pieces.
3. Objective lens with 200mm focal length for convenient working distance.
4. Stereo coaxial illumination and Retro illumination. Auto illumination off facility, when microscope not required during surgery, illumination gets off when microscope is moved in upward direction without touching foot control. Auto re-centering facility of XY, Focus, Illumination & Zoom when microscope is moved back in down-ward direction in the surgical field.
5. Motorized foot controlled X-Y coupling, automatic re-centering should be provided.
6. Motorized foot controlled Zoom and Focus should be available.
7. High quality floor stand with magnetic / mechanical breaks and clutches for easy positioning through handles and suspension arm.
8. Stand should have facility for setting the speed of XY, Zoom and focus with storage facility of initial setting for multiple users.
9. Superlux halogen / LED illumination source with Red Reflex enhancer & variable angle of illuminations.
10. Assistant microscope should be with independent 3 step magnification changer, independent fine focusing system, independent optics & inclinable binocular tube.
11. HD / 1 Chip or better, camera attachment and digital video recording facility, video trolley with transformer.
12. 36/42" LED display unit.
13. Should have Provision for attachment of wide angled non-contact viewing system (autoclavable) with aspheric lens 60D at a later a date, if required.
14. Should have US FDA or European CE certifications.
15. 2 year warranty and 5 years CAMC.

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LIST OF REQUIREMENTS

DEPARTMENT OF OPHTHALMOLOGY

Please refer below the List of Requirements for any changes in Quantity, EMD, deletion of any items etc:

Schedule No.	Sl. No.	Name of the Article	QTY	EMD (In Rs.)
		(i) O.P.D & WARDS		
1	1	Snellen Chart / Snellen drum with or without remote control	10	20,000/-
	2	Trial set with trial frame both for adult		
	3	and children	7	
	4	Bjerrurn Screen	3	
	5	Perimeter	3	
	6	Colour vision chart	5	
	7	Near vision chart with different language	8	
	8	3 cell torch	12	
	9	Ophthalmoscope and Retinoscope	7	
		COMMON EQUIPMENT – OPD & WARDS		
2	10	Slit lamp	8	60,000/-
3	11	Applanation tonometer - <u>DELETED</u>	0	12,000/-
4	12	Keratometer	2	10,000/-
5	13	Indirect Ophthalmoscope	2	1,000/-
6	14	Synoptophore	1	6,000/-
7	15	Maddox Rod	1	1,000/-

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	16	Maddox Wing	1	
	17	Diplopia goggles	1	
	18	Gonioscope	1	
	19	Placido disc	1	
	20	Prism Bar	1	
	21	Schoutz tonometer	3	
		(ii) Major Operation theatre		
8	22	<i>Operating microscope with TV} unit with camera</i>	2	1,50,000/-
9	23	Cryo Unit	2	1,000/-
10	24	Cataract Set	7	40,000/-
11	25	Glaucoma set	2	10,000/-
12	26	DCR set	2	1,000/-
13	27	Entropian set	2	15,000/-
	28	Enucleation set	2	
	29	Evisceration set	2	
14	30	Squint set	2	5,000/-
15	31	Operation Theatre Table Hydraulic for Ophthalmology	2	1,00,000/-

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REPLY TO PRE-BID QUERRIES

REFERENCE: Tender Enquiry No. HSCC/KCGMC/Medical Equipment/ 2015-01 dt. 11.05.2015

ENT

Sr. No.	Queries by Prospective Bidders	Remarks for any Amendment
A	<i>M/s Asian Surgical Corporation, New Delhi</i>	
1.	Schedule 1 is very small nature items & the cost of it is very less as such Manufacturer Authorization Letter & past performance may not be asked.	Manufacturer Authorization Letter & past performance for all items listed under Schedule 1 are not required except for the item "Otoscope" wherein Manufacturer Authorization Letter & past performance is required.
B	<i>M/s Rohit Surgical Pvt. Ltd., New Delhi</i>	
1a.	<u>Tympanoplasty Set</u> – The hand held instruments & High speed electric Drill should be made to two separate schedules.	Specifications suitably amended are enclosed.
1b.	<u>Tympanoplasty Set</u> – The technical specifications of High speed electric Drill should be revised.	Specifications suitably amended are enclosed.
2a.	<u>FESS Set</u> – Fess Hand instruments with telescope & HD Camera are clubbed as one item & should be made to two separate schedules as HD Camera can be used with other "scope" items like Laryngoscope / bronchoscope etc.	Specifications suitably amended are enclosed.
2b.	<u>FESS Set</u> – The technical specifications of Full HD Digital Camera with Fiber optics Light Cable should be revised.	Specifications suitably amended are enclosed.
3.	Have requested to amend as "The firm should have European CE and US FDA Certification".	Specifications suitably amended as "The manufacturing firm should have European CE or US FDA Certification".
C	<i>M/s Rohanika Electronics & Medical Systems , New Delhi.</i>	
1.	Schedule No. 21: Pure Tone Audiometer	
a)	Point No. 4: Suggested for deletion as it is very specific & generally not available with various models.	Revised Technical Specification is enclosed.
b)	Point No. 6: Suggested for deletion as it is not available in analog audiometers.	Revised Technical Specification is enclosed.

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c)	Point No. 7: Suggested for deletion as it is not available in analog audiometers.	Revised Technical Specification is enclosed.
d)	Special Tests: Suggested for deletion as it is generally not available with various models & specification includes ABLB & MLB.	Revised Technical Specification is enclosed.
2. Schedule No. 22: Impedance Audiometer / Tympanometer		
a)	Suggested for deletion of “ 800 Hz ” as it is generally not available with various models worldwide.	Specifications suitably amended are enclosed.
b)	Suggested for deletion of “ Switch ” as the probe have built-in Light & switch is not required.	Specifications suitably amended are enclosed.
c)	Suggested for deletion of “ with TDH 39 ” as it is generally not available with various models & earphone can be included.	Specifications suitably amended are enclosed.
3. Schedule No. 23: BERA with ASSR		
a)	Suggested for deletion of “ Normative data indication ”.	Revised Technical Specification is enclosed.
b)	Suggested for deletion of “ Wave editing during testing ”.	Revised Technical Specification is enclosed.
c)	Suggested for deletion of “ During Test ” in “Digital Filter application (during & after Test)” as it is not of valuable.	Revised Technical Specification is enclosed.
d)	Suggested for deletion of “ VNG & NCT ” in “Upgraded with OAE, ASSR and VNG, NCT” as it is for Neurological tests not of audiological tests.	Revised Technical Specification is enclosed.
e)	Suggested for deletion of “ Late Latency (P300 MMN etc ” as it is for Neurological tests.	Revised Technical Specification is enclosed.
D M/s Labat Asia Pvt. Ltd., Chandigarh.		
1. Schedule No. 21: Pure Tone Audiometer		
a)	Sought for clarification that High Frequency functional feature is needed with HF headphones.	Revised Technical Specification is enclosed.
b)	Sought for clarification that Free Field functional feature is needed with FF speakers.	Revised Technical Specification is enclosed.
c)	Sought for clarification on “2 channel master hearing aid” as the same is obsolete & requested for deletion.	Revised Technical Specification is enclosed.
2. Schedule No. 23: BERA with ASSR		
a)	Sought for clarification “is Bone conduction BERA and Bone conductor part of the scope of supply” in Bone conduction.	Revised Technical Specification is enclosed.

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b)	Sought for clarification “is OAE, ASSR and VNG essential part & to be quoted or only up-gradation is required at a later date” and also asked for elaboration of what is “NCT” & requested for deletion.	Revised Technical Specification is enclosed.
E	M/s Medilife Technologies, New Delhi.	
1	Schedule 8, 11 & 12:	
a)	All items are not manufactured by the Principal Manufacturer M/s Olympus as such confirmation to quote from multiple manufacturers is sought to cover all items under one schedule.	For Surgical Instruments, the Primary bidder must submit their Manufacturer Authorization Letter & Past Performance documents. If the primary bidder is taking some instruments from another manufacturer or firm, for completing the Set, then the Primary bidder is required to submit Authorization letter from the manufacturer / firm & latest Past performance, for those items of the manufacturer / firm, shall be considered.
b)	M/s Olympus has been manufacturing & serving ENT equipments for decades & have come directly to India only in 2010 & hence relaxation to provide “Indian” supply order & performance Certificate may please be relaxed.	It is not possible to relax.
c)	Requested for deletion of 2 years warrantee & 3 years CMC for instruments as these items are subject to wear & tear.	For surgical instruments like sissors, forcep etc warrantee / CMC are not applicable. However, during Technical Evaluation the Technical Committee may opt for sample Demonstration to check the quality & before supply / delivery, a committee may check the whole lot of Instrument sets for quality assurance.
2	Schedule No. 23: BERA with ASSR	
a)	Suggested for deletion of “VNG & NCT” in “Upgraded with OAE, ASSR and VNG, NCT” as it is for Neurological tests not of audiological tests.	Revised Technical Specification is enclosed.
F	M/s Toshbro Medicals Pvt. Ltd, New Delhi.	
1.	Schedule No. 20: ENT Surgical zooming Operating Microscope	
a)	Microscope Body: Suggested to amend “Total magnification range 2X to 15X or better”.	Specifications suitably amended are enclosed.
b)	Binocular Tube: Requested to remove “AIIMS Jodhpur”	Specifications suitably amended are enclosed.
c)	Illumination System: Suggested to amend “Co-axial xenon illumination minimum 300 Watt with a back up 300 Watt with quick easy lamp charger Xenon bulb Handgrip”.	Specifications suitably amended are enclosed.
d)	Video / Image Data Management System - UPS & CVT: Requested to amend “UPS only”.	Specifications suitably amended are enclosed.

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G	M/s Leica – DHR Holding India Pvt. Ltd, New Delhi.	
1.	Schedule No. 20: ENT Surgical zooming Operating Microscope	
a)	Microscope Body: Suggested to amend “Total magnification range 1X to 12X with 10X eye piece”.	Specifications suitably amended are enclosed.
b)	Point No 4: Requested for amendment to “Adjustable working distance from 200 mm to 450 mm or better”.	Specifications suitably amended are enclosed.
c)	Binocular Tube: Requested to remove “AIIMS Jodhpur”	Specifications suitably amended are enclosed.
d)	Eye Piece: Requested for amendment to “Diopter setting from -5D to +5D or better”	Specifications suitably amended are enclosed.
e)	Illumination System: Suggested to amend “Programming for magnetic brake for control of stand or microscope body brake, fine easy, Auto/ Manual Balance function”.	Specifications suitably amended are enclosed.
f)	Integrated Digital Video Camera System: Suggested to amend “Modular Digital Video Camera System”.	Specifications suitably amended are enclosed.
g)	Video / Image Data Management System - UPS & CVT: Requested to confirm requirement of UPS & CVT.	Specifications suitably amended are enclosed.
H	M/s Ultimate Medical Devices, New Delhi.	
1.	Suggested for changing to “CE or US FDA” instead of “European CE and US FDA”.	Specifications suitably amended as “European CE or US FDA” is made for surgical Instruments only.
2.	Requested for clarifications to quotes for combination of two brands with past performance & sole authorization.	For Surgical Instruments, the Primary bidder must submit their Manufacturer Authorization Letter & Past Performance documents. If the primary bidder is taking some instruments from another manufacturer or firm, for completing the Set, then the Primary bidder is required to submit Authorization letter from the manufacturer / firm & latest Past performance, for those items of the manufacturer / firm, shall be considered.

The Technical Specifications of the following equipments stands amended as follows:

Schedule No. 2:

ENT Treatment Unit

ENT treatment unit made of high quality steel casing of entire unit with polyurethane covering two or three storied large instrument surface with aluminium trays with unbreakable glass dust cover and built in waste container. Condensation discharge and liquid bottles should be easily accessible.

ENT Treatment unit consisting of:

- **Light source for endoscopy and head light**
 1. 80-150 watt
 2. Cold light with 2 outlets
 3. Intensity settings
 4. Halogen bulb with backup halogen
 5. Integrated in the main unit
- **Suction machine**
 1. Integrated in the main unit
 2. High vacuum pressure
 3. Noiseless
 4. Automatic on/off switch for vacuum function
 5. One set (04 of each) of suction tips of different caliber
 6. Bacterial filter with double over flow
 7. Liquid container with two bottles of minimum one litre capacity.
- **Compressor system**
 1. Integrated in main unit
 2. Oil free and noise less
 3. Fine regulation handle
 4. Minimum of 03 spray bottles
 5. Two sets of politzer olives and cannulas (straight and curved), chrome plated and adjustable
 6. Continuously adjustable pressure upto minimum of 2,5 bar

- **Endoscopy center**
 1. Disinfection and warming tanks for endoscopes
 2. Minimum of two quivers for endoscopes : one for rigid and one for flexible
 3. Automatic on/off system

- **Fibreoptic head light**
 1. Adjustable and comfortable head band
 2. Vertical and side to side adjustment
 3. App 180 cm fibreoptic cord, if applicable.
 4. Focal length 20-30cm, if applicable.
 5. Variable light spot
 6. Compatible in the light source housed in main unit, if applicable.

- **Patient examination chair**
 1. Motorized
 2. Reclinable chair with rotation facility of 360 degrees
 3. Should have adjustable head rest, arm rest fixed foot rest
 4. Adjustable mode for height control
 5. Foot pedal and hand switch
 6. Chair should be suitable for examination as well as minor surgery
 7. Upholstery of the seat should be fully synthetic leather and easy to clean.

- **Doctor chair**
 1. Made of chrome plated steel
 2. Adjustable height
 3. Revolving
 4. Comfortable seating
 5. Upholstery of the seat should be fully synthetic leather and easy to clean

- **Diagnostic Microscope**
 1. Integrated with unit for fibreoptic light transmission
 2. High quality lens. eye piece 10 x objective, $f=200-300\text{mm}$
 3. Magnification changer with 20-30cm focal length

4. Binocular vision
 5. 3 step magnification changer
- **Electro surgical unit**
 - High frequency type
 - Maximum 50 watts
 - Integrated with main unit
 - Monopolar accessories
 - Set of cautery probes

Schedule No. 8:

FESS INSTRUMENTS

A) INSTRUMENT SETS:

- Septum needle, angular, with luer- lock
- Sickle knife, pointed, 19cm long
- Endoscopic scissors
- Nasal suction straight
- Nasal suction curved
- Freer elevator should be double ended, semi sharp and blunt, 20cm long
- Small size oblong shaped Antrum curette, straight, 19cm
- KUHN Bolger sinus curette 90deg and 55 deg curved
- Back biting forceps Antrum curette forward cutting small size, 19cm length
- Double ended maxillary sinus ostium seeker, ball shaped ends diameter 1.2 and 2mm, length 19cm
- Cottle elevator double ended, semi sharp and blunt, graduated, length 20cm
- Conical suction tube should be malleable, with finger grip plate, luerlock, Outer diameter 2.5cm, working length 13cm
- Suction tube, with mandrel and cut-off hole, with distance marking 5- 9cm, 9Fr., working length 10cm
- Antrum cannula, Luer-lock, with cut-off hole, short curved, outer diameter 3mm & 4 mm, length 12.5cm
- Bipolar coagulation forceps, insulated, angular, blunt, with integrated suction channel, with cut-off hole, length 19cm, to be supplied with Bipolar High frequency cord

- Stammerger Bipolar Suction forceps, 15 deg upturned, with suction channel, working length 12.5cm, to be supplied with Bipolar High frequency cord
- Stamberger Antrum punch for Left & Right side downward and forward cutting, working length 10cm
- Nasal cutting forceps, working length 13cm
- Stammerger Rhinoforce Antrum Punch, right and left side backward cutting, working length 10cm
- Antrum grasping forceps for maxillary sinus, jaws curved to right, fixed jaw curved 90 deg, opening 120 deg, movable jaw backward, length 10cm
- Blakesley nasal forceps, straight with working length 13cm
- Blakesley-wilde nasal forceps, Upturned 45deg & 90deg with working length 13cm
- Nasal scissors, Straight, working length 13cm
- Giraffe forceps 65deg upturn, cup jaws diameter 3mm with horizontal & vertical opening, length 12cm Biopsy & Grasping forceps, vertical opening, malleable sheath end, cupped jaws diameter 4mm, working length 18cm
- Stammerger Punch, circular cutting circular punch, dia 4.5mm, working length 18cm
- Stammerger Punch, 65 deg upturned, circular cutting, dia 3.5mm,

Schedule No. 8:

B) FESS INSTRUMENTS:

Full HD Digital Camera

- The system should be truly Digital Full HDTV Endoscopic video camera.
- The system should qualify all the essential criteria for full HDTV system :
- Maximum Resolution of 1920 X 1080 pixels,
- Progressive scan .
- Consistent use of 16: 9 format for Input & Output to guarantee genuine HDTV.

The system should have following Features:

- CCD sensing chip should optimizes image quality & Digital Source Sampling for maximizing hi-fidelity image transmission.
- Optimizes to Any Size: The system should have integrated Optical Zoom (f= 14- 30 mm, 2X) to enhance the quality of Image size & cross specialty standardization of the camera system, regardless of the telescope used.
- The system should automatically optimize all settings. The system should be ready- to- use as soon as it is connected to the camera control unit.

- The system should be Menu driven, thus allowing the surgeon to program the camera head functions as per the surgical needs & requirement.
- The system should be capable of controlling the light control function from the camera head buttons without any additional requirement of hardware & software.

HDTV widescreen Monitor The monitor should have :

- HDTV display in original 16:10 / 16:9 HDTV format.
- 1080 p/ 50 & 1080 p/60 displays possible.
- LCD / LED crystal display.
- Max. Resolution of 1920X1080 pixels.
- Screen diagonal – 23” or more.

Xenon Light Source And Light Cable

Specifications: High intensity Xenon light source with one spare Xenon lamp Special features :

- High light intensity with 300watt Xenon Lamp.
- High colour temperature – more than 6000 K corresponds to brightness of sunlight resulting in high visual and photographic clarity for colour rendition.
- Monitoring of lamp function. Unit should be compatible with any make fibre-optic light cable.

Fiber Optic Light Cable

- Specifications : Size 4.8 mm, length 250 cm

Trolley to mount the above mentioned systems to be provided.

- Endoscopes
- 0 degree, 4mm, 18cm wide angle straight forward telescope, autoclavable
- 30 degree, 4mm, 18cm wide angle straight forward telescope, autoclavable
- 45 degree, 4mm 18cm wide angle straight forward telescope, autoclavable
- 70 degree, 4mm, 18cm wide angle straight forward telescope, autoclavable
- 0 degree, 2.7mm, 18cm straight forward telescope, autoclavable
- 45 degree, 2.7mm, 18cm straight forward telescope, autoclavable

Schedule No. 11:

**Tympanoplasty set
[Drill – 2 Nos.- One for Major OT & One for Temporal Bone Lab]**

A) INSTRUMENT SETS:

Hartmann aural speculum – 4
Ear curette
Rosen round knife: 45 degree Angle 2.5mm tip, shaft 160cm
Rosen ground knife : 45 degrees 2.0 mm tip ,shaft 160 cm
Micro ear suction
Micro raspatory 160mm length
Plester flag knife 165 mm length
Plester sickle knife 165 mm length
Freer elevator 200 mm
Plester retractor: 2x2 prongs 130mm length
Wullstein postaural retractor: 3x3 sharp prongs 110 mm length
Wullstein needle: straight, sharp 165 mm length
Wullstein needle : gentle curve , sharp 165 mm length
Wullstein needle ; strong curve , sharp 165 mm length
Belluci micro ear scissors: straight 4mm blade 80mm length
Belluci micro ear scissors: straight 8mm blade 80 mm length
Dieter malleus nipper 80 mm up biting
Crocodile forcep
Micro ear oval cupped straight : 80mm shaft 1.5mm thick
Fisch micro ear forcep curretted : 0.6 x4mm 80mm length shaft 1.5mm
House currett double ended , sharp curved : round cup 1.2mm 170mm
House currett double ended , sharp curved : oval cup 1.8mm 170 mm
House currett double ended , sharp curved : oval cup 2.2 mm 170mm
Antral seeker

Schedule No. 11:

B) DRILL:

High speed electrical drill

The High Speed electric Drill must consists of the following:

- Universal high speed electrical drill system with variable speed setting from 10,000 – 60,000 rpm
- Should have touch screen display panel
- Should display various information like motor type, maximum rpm and current rpm level
- Console to allow visible display and setting of maximum speed limit
- Should have customizable settings like acceleration and stopping characteristics for individual motors
- Should be less than 75 – 105 mm in length and 20 mm in thickness. It should not weigh more than 85 – 110 grams
- Should have a torque more than 2.5Ncm
- Double pedal foot control for varying the speed and various other associated functions.
- Integerated irrigation pump
- System should be with following attachments and accessories
- Electrical touch screen control unit with irrigation pump
- Pedal foot control
- Motor cable 3 m length
- High speed motor with cable
- Straight handpiece of working length of 70 – 75 mm
- Angled handpiece of working length of 70 – 75 mm
- Sterilisable cutting burr from 0.5 mm to 6 mm (2 sets of each size).
- Sterilisable diamond burr from 0.5 mm to 6 mm (2 sets of each size).
- Irrigation accessories to be provided along with the system.

It has been relaxed in the tender condition that for the items under Schedules 8 & 11 marked Part A & B only that the firms may not quote both A & B. The firms may choose to quote either “A or B” or both “A & B” for items under Schedules 8 & 11 only.

Schedule No. 20:

A. ENT Surgical Zooming Operating Microscope Specifications

Quantity: Two nos. – 1 for Major OT & 1 for Minor OT

FLOOR STAND

1. Rollable floor stand on base with lockable castors, carrier and swivel arms with large reach of 1.30 m or higher, Weight caring capacity at least 10Kg. Should have free float system with magnetic/mechanical brakes for Microscope body & for Microscope Stand with, release of brakes by handgrips/knobs.
2. Manipulation to any position with locking for trouble free operation.
3. Suitably Placed LCD display of function and parameters, individual programming for different Surgeons.

MICROSCOPE BODY

1. Motorized Zoom Magnification system with advanced apochromatic optics. Zoom magnification factors 0.4x to 2.4x activation by handgrip and foot control panel.
2. Total Magnification range 2 X to 12 X or better activated by hand grip / foot control without exchange of objective lens. for continuously variable illumination field.
3. Internal Motorized fine focusing system activated by hand grip and foot control continuously.
4. Adjustable working distance from 200-225 mm to 400-425 mm or more without exchange of objective lens, integrated continuously variable illumination field spot size.
5. 50:50 beam splitter with two additional output inbuilt for connection of co- observation device and video.
6. Binocular Stereo co observation system movable in all axis for assistant surgeon/ teaching purpose. Frequency range between 50-60 Hz. Automatic Circuit Breaker Adjustable friction of all joints Microscope should be movable on an inclined coupling for positioning in lateral direction. The maximum stretching length of the horizontal arm to be not less than 1000mm. The swivel angles of the carrier arm not less than 300 degree. Balanced microscope to manoeuvre the microscope in all directions with minimal force.

BINOCULAR TUBE

1. 180 Degree or more tilt able / Straight binocular tube with focal length $f= 200$ mm or more.
2. Graduated knob for continuous adjustment of inter-pupillary distance from 55 mm to 75 mm.

EYE PIECE

1. Pair of wide field push in eye piece 10X with locks.
2. Diopter setting from -5D to +5 D, also suitable for spectacles wearers

ILLUMINATION SYSTEM

1. Coaxial xenon illumination minimum 180 Watt with a back up quick easy lamp changer Xenon bulb

HANDGRIPS

1. Easily adjustable handgrips with keys for zoom and focus, illumination.

FOOT CONTROL PANEL Full function foot control panel with Control keys for zoom, focus, movements and light intensity.

DIGITAL VIDEO CAMERA SYSTEM: Advanced digital 1CCD Video camera, suitable for connection to PC and colour monitor.

USER PROGRAMMING: Programming for starting illumination, Magnification, working distance, Zoom speed & Focus speed for at least 8 - 9 different users.

UPS: On line UPS of suitable rating with 1/2 hour back-up should be provided along with the system.

Monitor: 21" or more, Monitor (preferably of Medical Grade) LCD / LED Monitor should be provided along with the system.

Schedule No. 21:

PURE TONE AUDIOMETER

Advanced Two Channel Clinical Audiometer with Free Field & VRA

1. Air , Bone and Speech
2. Speech and Pure Tone
3. 2 Channel Binaural Speech
4. Auto threshold / Scoring for Special Tests
5. Automatic Speech Scoring
6. 2 Channel Master Hearing Aid
7. Tones : Pure, Warble and Pulsed Tones
8. Masking : NBN, WARBLE (PINK), SPN
9. Free Field Speakers and Free Field Amplifier complete with VRA (Visual Reinforcement Audiometer) Device/Dolls test facility.

Special Test:

- SISI
- Free Field
- Stenger
- ABLB Test
- Loudness Balancing: 250 Hz, 500 Hz, 2kHz, 4kHz, 6kHz NB noise with direct comparison to standard curves.
- Ttdecay
- Number of Channels : Two Independent Oscillators
- Frequency Range : 125 Hz – 8 kHz
- Intensity Range : - 10dB – 120dB (Air Conduction)
-10dB – 80dB (Bone Conduction) 5dB and 1 dB Attenuators
- Frequency Resolution: Multi frequency.
- Medical CE

Schedule No. 23:

Brainstem Evoked Response Audiometer with ASSR

- 2 channels
- Windows based
- CE-CHIRP stimulus
- Fmp – incorporating multiple points of the recorded waveform.
- Bayesian Weighting.
- Bone Conduction
- Integrated database
- Pre-programmed auto tests
- Waveform reproducibility indication
- Split left/right recordings
- Simultaneous recording of condensation rarefaction stimuli
- Normative data indication

- Soft attenuator
- Wave editing during testing
- Digital filter application (during and after test)
- Add, subtract curves
- Low noise amplifier
- **Future Upgradability option of OAE**
- Medical CE-mark
- Easy portability
- Early Latency

ASSR:

- PreAmplifier
- 2 channels
- Gain 80 dB
- Frequency Response upto 5000Hz
- Noise 4nV/√Hz. 0.22 μV RMS (0 – 3 kHz)
- CMR Ratio > 115 dB at any frequency between 0.1Hz & 10Hz.
- Input Impedance > 10M
- Accepted electrode offset > 300mV.
- Power from main unit.
- Impedance Check
- Measuring Current 19uA.
- Ranges 0.5k – 25k.

For all the items the Technical Evaluation Committee, during Technical Evaluation, may opt for Demonstration of the items. The Committee may also ask for Demonstration/inspection before supply / delivery of the items for quality assurance.

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LIST OF REQUIREMENTS

DEPARTMENT OF ENT

Please refer below the List of Requirements for any changes in Quantity, EMD, deletion of any items etc:

Schedule No.	Sl. No.	Name of the Article	QTY	EMD (in IRs)
1	1	Nasal speculum	6 Sets	2,500/-
	2	Tonque depressor	6 Sets	
	3	Laryngeal mirrors	6 Sets	
	4	Nasopharyngeal mirrors	6 Sets	
	5	Aural speculum	6 Sets	
	6	Ear suction	6 Sets	
	7	Nasal suction of various sizes	6 Sets	
	8	Suction apparatus	2 Nos	
	9	Sigeles speculum	2 Nos	
	10	Tuning fork (512 Hz)	5 Sets	
	11	Otoscope	4 Nos	
	12	Bayonet forceps	4 Nos	
	13	Bull lamp	4 Nos	
	14	Head lamp	4 Nos	
	15	Jobson Horne probe	6 Nos	
	16	Sterilizer (Electric) - DELETED	0	
	17	BP apparatus - DELETED	0	
	18	Stethoscope - DELETED	0	
2		ENT examination chair unit	2	25,000/-

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	(ii) Major Operation theatre			
3		Tonsillectomy and adenoidectomy	1	5,000/-
4		Set for nasal bone fracture consisting of		2,000/-
5		Septoplasty set	1	4,000/-
6		Caldwel luc set		1,000/-
7		Antrostomy set	1	2,000/-
8 A		FESS Instrument set	2	10,000/-
8 B		FESS Instruments	2	20,000/-
9		Direct laryngoscopy set	1	10,000/-
10		Microlaryngoscopy set	1	15,000/-
11 A		Tympanoplasty Instrument set	1	5,000/-
11 B		Incl. Electric drill (motor, handpiece and burrs)	1	2,000/-
12		Mastoidectomy set	2	10,000/-
13		Stapedectomy set	1	7,000/-
14		Oesophagoscopy set	1	5,000/-
15		Bronchoscopy set	1	5,000/-
16		Tracheostomy set	2	4,000/-
	(iii) Minor Operation Theatre			
17	1	I(a) Antral wash set		1,000/-
	2	Trocar	2	
	3	Canula	2	
	4	Higginsons syringe	2	
18		(b) Direct laryngoscope set	1	10,000/-
	1	laryngoscope - Anterior commissure	1	
	2	Negus	1	
	3	Lighting system	1	
	4	Biospv forceps	1	
	5	Foreign body removal forceps	1	

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19	7	aural syringe	1	3,000/-
	8	Tracheostomy set	1	
	9	Intubation set	1	
	10	Cricothyrotomy set	1	
	11	Quinsy forceps	1	
	12	Laryngeal forceps	1	
	13	Aural snare	1	
	14	Aural cup forceps	1	
(V) MISCELLANEOUS EQUIPMENTS				
20	1	Operating microscope for Minor & major O.T.	2	1,00,000/-
21	2	Puretone audiometer	1	7,500/-
22	3	Impedance audiometer	1	5,000/-
23	4	Brainstem evoked response audiometer	1	17,000/-

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REPLY TO PRE-BID QUERRIES

REFERENCE: Tender Enquiry No. HSCC/KCGMC/Medical Equipment/ 2015-01 dt. 11.05.2015

ORTHOPEDICS

Sr. No.	Queries by Prospective Bidders	Remarks for any Amendment
A	<i>M/s Ultimate Medical Devices, New Delhi.</i>	
1.	Suggested for changing to "CE or US FDA" instead of "European CE and US FDA".	Specifications suitably amended as "European CE or US FDA" is made for surgical Instruments only.
2.	Requested for clarifications to quotes for combination of two brands with past performance & sole authorization.	For Surgical Instruments, the Primary bidder must submit their Manufacturer Authorization Letter & Past Performance documents. If the primary bidder is taking some instruments from another manufacturer or firm, for completing the Set, then the Primary bidder is required to submit Authorization letter from the manufacturer / firm & latest Past performance, for those items of the manufacturer / firm, shall be considered.
B	<i>M/s Vishal Surgical Equipment Co., New Delhi</i>	
1.	To quote the Instruments Set completely, we have to procure / quote the Instruments of another manufacturer also for which performance of the same may not be available from us. It is requested to make amendment in the tender condition to quote combination of two different manufacturers wherein performance of the main manufacturer should be taken into consideration.	For Surgical Instruments, the Primary bidder must submit their Manufacturer Authorization Letter & Past Performance documents. If the primary bidder is taking some instruments from another manufacturer or firm, for completing the Set, then the Primary bidder is required to submit Authorization letter from the manufacturer / firm & latest Past performance, for those items of the manufacturer / firm, shall be considered.
C	<i>M/s Rohit Surgical Pvt. Ltd., New Delhi</i>	
1	<u>Schedule 5: Arthroscopy System</u>	
	The Technical Specification of Arthroscopy System needs to be amended for wider participation.	Specifications suitably amended are enclosed.

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D	<i>M/s Shakti Orthopaedic Industries (P) Ltd., New Delhi</i>	
1a.	For all Surgical Instrument Sets it has been suggested for changing to "CE or US FDA" instead of "European CE and US FDA".	Specifications suitably amended as "European CE or US FDA" is made for surgical Instruments only.
1b.	For all Surgical Instrument Sets it has been suggested for demonstration of Orthopedic & Surgical Instruments at your office by Technical Committee to evaluate & approve on the basis of quality of products.	Specifications suitably amended as "During Technical Evaluation the Technical Committee may opt for sample Demonstration to check the quality & before supply / delivery, a committee may check the whole lot of Instrument set for quality assurance" is made for surgical Instruments only.
1c.	Requested to delete "requirement of imported items for Long Lasting Imported Items" under Schedule 1.	Any bidder having Indian or imported make Surgical instrument set can quote but must have European CE or US FDA certification.
E	<i>M/s Karl Storz Endoscopy India Pvt. Ltd., New Delhi</i>	
1	<u>Schedule 5: Arthroscopy System</u>	
a	The Technical Specification of Arthroscopy System needs to be amended for wider participation.	Specifications suitably amended are enclosed.
b	Have requested to amend as "The firm should have European CE and US FDA Certification".	Specifications suitably amended as "The manufacturing firm should have European CE or US FDA Certification".
F	<i>M/s Zimmer India Pvt. Ltd., New Delhi</i>	
1	<u>Schedule 1: Basic Instrument Sets</u>	
	The Technical Specification of Basic Instrument Set needs to be amended.	Specifications suitably amended are enclosed.
G	<i>M/s Adler Mediequip Pvt. Ltd., Pune</i>	
1.	For all Instrument Sets the Company should have European CE only and remove US FDA Certificates as CE grade steel ensures the quality of the Standard.	Specifications suitably amended as "European CE or US FDA & materials used for manufacturing the instruments should be as per CE requirement & suitable Medical/Surgical Grade material to be used for manufacturing" is made for surgical Instruments only.
2.	Please let us know if we can quote as you have mentioned only MNC are allowed to quote.	Any MNC bidder having Indian or imported make Surgical instrument set can quote but must have European CE or US FDA certification.
H	<i>M/s Asian Surgical Corporation, New Delhi</i>	
1.	For all Instrument Sets the Company requested for removal of USFDA, as European CE Certificates ensures CE Grade steel of quality Standard.	Specifications suitably amended as "European CE or US FDA & materials used for manufacturing the instruments should be as per CE requirement & suitable Medical/Surgical Grade material to be used for manufacturing" is made for surgical Instruments only.

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I	M/s Pragati Medicare India, Delhi	
1.	For all Instrument Sets the Company should have European CE only and remove US FDA Certificates as CE grade still ensures the quality of the Standard.	Specifications suitably amended as “European CE or US FDA & materials used for manufacturing the instruments should be as per CE requirement & suitable Medical/Surgical Grade material to be used for manufacturing” is made for surgical Instruments only.

TECHNICAL SPECIFICATIONS FOR ORTHOPAEDICS DEPARTMENT

SCHEDULE 1

1. Basic Instrument Sets for Fractures – Qty per Set motioned against each item

A. Instruments – International Standards

- 2 Sets

S.No.	DESCRIPTION	QTY.
1.	DHS/DCS Triple Reamer	2
2.	Quick coupling for DHS, DCS triple reamer	2
3.	Key for Jacob's reamer chuck AO 510.190	10
4.	Seating chisel for condylar blade plate	2
5.	Router for quick coupling for condylar blade plate	2
6.	Screw driver for 3.5 mm screws	10
7.	Screw driver for 4.5 mm screws	10
8.	Templates for 3.5 mm DCP plates	10
9.	Templates for 4.5 nun DCP plates	10
10.	Bending Plier for 3.5mm plates	4
11.	Bending Press for 4.5mm Plates	4
12.	Tap for DHS Lag Screw	2

B. Plaster Cutting Saw –

- 4 Sets

SPECIFICATIONS:

- (i) Heavy duty, Light weight with aspirator.
- (ii) Ball Bearing mounted well ventilated motor for use on A.C. or D.C. supplies, with switch housed in a shockproof, insulated casing, Having input wattage of 90W.
- (iii) Saw Hand piece should be of light weight, with Gears Permanently Lubricated insulated from motor.
- (iv) Should be with Blades to cut normal and Synthetic Plasters.
- (v) Spare Blades -10

C. General Orthopaedic Instruments –

Specifications: Instrument Set containing following items made of good quality stainless steel

<u>S. No.</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1.	Langenback Retractors i. Mini Langenback Retractor 10mm X 6mm ii. Mini Langenback Retractor 22mm X 8mm iii. Kocher Langenback Retractor 40 X 11mm X 21cm iv. Langenback Retractor 30 X 11	8 Sets
2.	Hohmann"s Retractors i. 8mm Blade ii. 10mm Blade iii. 17mm Blade iv. 43mm Blade v. 13/25mm Blade	6 Sets
3.	Hip Retractor set with quadrilateral frame and six spare blades	2 Nos
4.	Jacob's drill Chuck (open type/closed type)	6 Nos
5.	BP knife handles No 3 size No 4 size No 5 size	10 Each

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6.	Bone levers	20 Sets
	Small size	
	Medium size	
	Large size	
7.	Hammer with different weights commonly used in Orthopedic Procedures. – 10 Sets	
8.	Bone Holding Reduction Forceps with locking device	
	Small for forearm bones - 6 pairs	
	Medium - 6 pairs	
	Large for leg bones - 6 pairs	
9.	Bone Holding Forceps	6 Sets of Each
	Lane's- Small, Medium, Large size.	
	Ferguson's- Small, Medium, Large size	
	Hey Grove's- Small, Medium, Large size	
	Burn's – Small, Medium, Large size	
10.	Bone forceps with Wire Passer (two blunt blades with hole for Passing K wire to fix phalanx fractures)	6 Nos
11.	Forearm clamps	10 Nos
12.	K Wire Traction Set Complete	10 Sets
	a) Each set should contain	
	i. Kirschner Stirrup for wire extension- 5 Nos.	
	ii. K – Wire double ended 200mm - 50 Nos.	
	b) Each Set Should Contain	
	i. Gissane Stirrup for wire extension – 5 Nos.	
	ii. K- Wire double ended 200mm - 50 Nos.	
13.	Bohler's/Equivalent Stirrups of Assorted Sizes	50 Nos
14.	Bernhard/ Equivalent Towel Forceps 6 ½	100 Nos each
	Backhaus/ Equivalent Towel Forceps 5"	100 Nos each
15.	Sims Maier Sponge Holding 11"	35 Nos
16.	Probe Nelaton 16cm	10 Nos
17.	Skin Hooks	20 Nos
18.	Amputation Saw (Charriere Type)	10 Nos
19.	Bone Curette of all sizes	5 Sets
20.	Patella Holding Forceps, 4 prong/3 prong	2 Sets of Each
21.	Pointed reduction Clamp (AO type, small, medium, large)	6 pairs each
22.	AO type self centric Forceps, (AO type, small, medium, large)	6 pairs each
23.	Low Man clamp, small, medium, large	2 nos each

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24.	Depth Gauge for miniscrews 1.5 mm to 2 mm screw 2.0 mm to 2.5 mm screw 2.7 mm to 4.0 mm screw 4.5 mm screw	4 Sets of each
25.	Tap Sleeve for 4.5 mm tap 3.5 mm tap	5 Sets
26.	Drill Sleeve for 3.2 mm drill bit 2.5 mm drill bit	5 Sets
27.	Autoclavable storage box for AO screws	5 Nos
28.	Autoclavable storage box with trays for AO plating instrument set	5 Nos
29.	Gigli Saw Instrument set Each set should contain I. Gigli Saw Handle - 2 pairs II. Gigli Saw Wires - 100 Nos.	3 Sets
30.	Patella reduction clamp	4 Nos
31.	Patella wire passer	2 Nos
32.	Ring Cutter	3 Nos

D. General Instruments For Orthopaedic Surgery (Long Lasting)

S.NO	SPECIFICATIONS	QTY.
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1 SCISSORS

STANDARD SURGICAL SCISSOR BLUNT/BLUNT, STRAIGHT LENGTH 13 CM - 10
 STANDARD SURGICAL SCISSOR BLUNT/BLUNT, STRAIGHT LENGTH 18.5 CM - 10
 STANDARD SURGICAL SCISSOR BLUNT/BLUNT, CURVED LENGTH 13 CM - 10
 STANDARD SURGICAL SCISSOR BLUNT/BLUNT, CURVED LENGTH 18.5 CM - 10
 STANDARD SURGICAL SCISSOR SHARP/BLUNT STRAIGHT LENGTH 13 CM - 10
 STANDARD SURGICAL SCISSOR SHARP/BLUNT STRAIGHT LENGTH 18.5 CM -10
 STANDARD SURGICAL SCISSOR SHARP/BLUNT, CURVED LENGTH 13 CM - 10
 STANDARD SURGICAL SCISSOR SHARP/BLUNT, CURVED LENGTH 18.5 CM - 10
 MAYO DISSECTING SCISSOR STRAIGHT LENGTH 14.5 CM - 10
 MAYO DISSECTING SCISSOR STRAIGHT LENGTH 20 CM - 10

MAYO DISSECTING SCISSOR CURVED LENGTH 14.5 CM - 10
MAYO DISSECTING SCISSOR CURVED LENGTH 20 CM - 10
METZENBAUM DISSECTING SCISSOR BLUNT/BLUNT, STRAIGHT LENGTH 18 CM - 10
METZENBAUM DISSECTING SCISSOR BLUNT/BLUNT, STRAIGHT LENGTH 25 CM - 10
METZENBAUM DISSECTING SCISSOR BLUNT/BLUNT, CURVED LENGTH 18 CM - 10
METZENBAUM DISSECTING SCISSOR BLUNT/BLUNT, CURVED LENGTH 25 CM - 10
BEEBEE WIRE CUTTING SCISSOR BLUNT/BLUNT, STRAIGHT LENGTH 12 CM - 10
BEEBEE WIRE CUTTING SCISSOR BLUNT/BLUNT, CURVED LENGTH 12 CM - 10
LISTER BANDAGE AND PLASTER SHEAR SCISSOR LENGTH 20 CM - 10
BERGMANN BANDAGE AND PLASTER SHEAR. SCISSOR LENGTH 23 CM - 10
IRIS SCISSORS 11.5 CM STRAIGHT - 10
IRIS SCISSORS 11.5 CM CURVED - 10

2. FORCEPS

USA STANDARD DRESSING FORCEPS LENGTH 14.5 CM - 10
USA STANDARD DRESSING FORCEPS LENGTH 20 CM - 10
ADSON DRESSING FORCEPS LENGTH 12 CM -10
ADSON DRESSING FORCEPS LENGTH 15 CM - 10
TAYLOR DRESSING FORCEPS WITH DISSECTOR END LENGTH 17.5 CM - 10
TAYLOR DRESSING FORCEPS WITH DISSECTOR END LENGTH 18.5 CM - 10
BROPHY DRESSING FORCEPS STRAIGHT LENGTH 20 CM - 10
STANDARD TISSUE FORCEPS 1 X 2 TEETH LENGTH 14.5 CM - 10
STANDARD TISSUE FORCEPS 1 X 2 TEETH LENGTH 20 CM - 10
STANDARD TISSUE FORCEPS 1 X 2 TEETH MEDIUM WIDE LENGTH 14.5 CM - 10
STANDARD TISSUE FORCEPS 1 X 2 TEETH MEDIUM WIDE LENGTH 20 CM - 10
STANDARD TISSUE FORCEPS FINE 1 X2 TEETH LENGTH 14.5 CM - 10
STANDARD TISSUE FORCEPS FINE 1 X 2 TEETH LENGTH 20 CM - 10
USA STANDARD TISSUE FORCEPS 1 X 2 TEETH LENGTH 14.5 CM - 10
USA STANDARD TISSUE FORCEPS 1 X 2 TEETH LENGTH 20 CM - 10
DEBAKEY ATRAUMATIC DISSECTING FORCEPS 1.5 MM STRAIGHT LENGTH 16 CM - 10
DEBAKEY ATRAUMATIC DISSECTING FORCEPS 1.5 MM STRAIGHT LENGTH 20 CM - 10
DEBAKEY ATRAUMATIC DISSECTING FORCEPS 2.7 MM STRAIGHT LENGTH 16 CM - 10
DEBAKEY ATRAUMATIC DISSECTING FORCEPS 2.7 MM STRAIGHT LENGTH 20 CM - 10
HALSTEAD - MOSQUITO FORCEPS STRAIGHT LENGTH 14 CM - 50
HALSTEAD - MOSQUITO FORCEPS CURVED LENGTH 14 CM - 50
HALSTEAD FORCEPS STRAIGHT LENGTH 21 CM - 50
HALSTEAD FORCEPS CURVED LENGTH 21 CM - 50
RANKIN - KELLY FORCEPS STRAIGHT LENGTH 16 CM - 50
RANKIN - KELLY FORCEPS CURVED LENGTH 16 CM - 50
NEGUS FORCEPS CURVED LENGTH 19 CM - 50
KOCHER (ROCHESTER- OCHSNER) FORCEPS 1 X 2 TEETH STRAIGHT LENGTH 18 CM - 50

KOCHER (ROCHESTER- OCHSNER) FORCEPS 1 X 2 TEETH STRAIGHT LENGTH 20 CM - 50
KOCHER (ROCHESTER- OCHSNER) FORCEPS 1 X 2 TEETH CURVED LENGTH 18 CM - 50
KOCHER (ROCHESTER- OCHSNER) FORCEPS 1 X 2 TEETH CURVED LENGTH 20 CM - 50

3. NEEDLE HOLDERS

CRILE-WOOD NEEDLE HOLDER SERRATED P04, LENGTH 15 CM - 20
CRILE-WOOD NEEDLE HOLDER SERRATED P04, LENGTH 20 CM - 20
STRATTE NEEDLE HOLDER SERRATED P05, LENGTH 23 CM - 20

E. General Instruments For Orthopaedic Surgery

<u>S. No.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
---------------	--------------------	-------------

- | | | |
|----|---|--|
| 1. | Bone Rongeur – Double Action
Small size – 10 Nos.
Medium Size – 10 Nos
Large Size - 10 Nos | |
| 2. | Bone cutter – Double Action straight & curved
Small Size 18cm – 6 Nos
Medium Size 23 cm - 6 Nos
Large Size 27cm, - 6 Nos
Tudur Edward - 4 Nos | |
| 3. | K- Wire Cutter (Capacity 4 mm) with replaceable tungsten carbide
Blades with rubber Jaws Set - 10 Sets.
Should consist of:
i. K- wire cutter 28cm
ii. Spare Blades 4 pairs with Screws
iii. Spare Rubber Jaws 4 Pairs with Screws
iv. Allen keys 4 sets | |
| 4. | Stienmann Pin Cutter cutting capacity up to 6mm - 5 Nos. | |
| 5. | Loute/equivalent Wire tightener cum wire cutter - 5 Nos. | |
| 6. | Wire Bending cum cutter plier length 15 cm - 5 Nos. | |
| 7. | Osteotomes, straight with tufnol handle, 5 each of sizes 7,10,15, 20 mm width - 20 Nos. | |
| 8. | Osteotomes, curved with tufnol handle, 5 each of sizes 7,10,15, 20 mm width - 20 Nos. | |

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- 9 Osteotomes, straight with tufnol handle, 5 each of sizes 4, 6, 8, 10, 12 mm - 25 Nos.
- 10. Chisel Straight with tufnol handle 5 of each sizes 7,10,15,20 mm - 20 Nos.
- 11. Retractors
 - Wullstein/Equivalent-Weitlaner Self-Retaining Retractor 3 X 3 Teeth Blunt Length 13 Cm 10 Nos
 - Weitlaner/ Equivalent Self-Retaining Retractor 3 X 4 Teeth Blunt Length 163 Cm 10 Nos.
 - Weitlaner/ Equivalent Self-Retaining Retractor 3 X 4 Teeth Blunt Length 26 Cm 10 Nos.
 - Adson/ Equivalent Self-Retaining Retractor 3 X 4 Teeth Blunt Length 26 Cm 10 Nos.
 - Gelpi / Equivalent Self-Retaining Retractor With Balls, Blunt Length 18 Cm 10 Nos
- 12. Elevators
 - Farabeuf Periosteal Elevator, Straight 13 Mm Length 15 Cm - 10 Nos
 - Farabeuf Periosteal Elevator, Curved 13 Mm Length 15 Cm - 10 Nos
 - Lambotte Periosteal Raspatory and Elevator, Curved 10mm Length 2l cm - 10 Nos
 - Mc Donald Elevator Double Ended Curved 6/6 Length 19 cm - 5 Nos
 - Cobbs Elevator Medium 13mm with Long Handle - 5 Nos
 - Cobbs Elevator Large 19mm With Long Handle - 5 Nos
 - Bristows - 10
- 13. Bolt Cutter
 - Bolt Cutter Maximum Capacity Dia 6mm Length 56 cm - 4 Nos
- 14. Jacobs Chuck with Handle
 - Jacobs Drill Three Jaw Chuck With Key, Max Dia 6.35mm Length 14 cm - 5 Nos
- 15. Awls
 - With T-Handle Length 14 cm - 5 Nos
 - With Round Handle Length 14 cm - 5 Nos
- 16. Skin Grafting Handle with Blades – 3 Sets.

F. Broken screw removal set -

- 2 Sets

- Aluminium Case, perforated - 1
- Hollow Reamer for 3.5/4.0mm Screws - 1
- Spare Reamer Tube - 1
- Extraction Bolt for 3.5/4.0mm Screws - 1
- Extraction Screw, conical, for 2.7mm, 3.5mm and 4.0mm Screws - 1
- Hollow Reamer for 4.5mm Screws - 1
- Spare Reamer Tube - 1
- Extraction Bolt for 4.5mm Screws - 1
- Extraction Screw, conical, for 4.5/6.5mm Screws - 1
- Hollow Reamer for 5.0/6.0/6.5/7.0mm Screws - 1
- Spare Reamer Tube - 1
- Extraction Bolt, for 5.0/6.0/6.5/7.0mm Screws - 1

Aluminium Plate, anodized - 1
Sharp Hook, approx. L 155mm - 1
Forceps for Screw Removal, approx. L 205mm - 1
Gouge, 10mm wide, approx. L 205mm - 1
T-Handle with quick coupling, approx. L 80mm - 1

G. Nail Removal Set

- 2 Sets

Connector for Extract-Hook Connector with thread, for Extraction Hook - 1
Extract-Hook approx. L 480 for Nails 9mm to be used with connector -1
Extract-Hook long for Nails 9-11mm to be used with connector - 1
Extract-Hook long for Nails 11-14mm to be used with connector – 1

H. Wire Instrument set

- 2 Sets

Aluminium Case, perforated - 1
Drill Bit, 2.0mm dia., approx. L 102/75mm for quick coupling - 4
Triple Drill Guide 2.0 with 3 holes, opposite side 1 hole - 3
Wire Passer, 45mm bending diameter - 3
Wire Passer, 70mm bending diameter - 3
Wire Tightener with handle and two pegs - 4
Holding Forceps for Cerclage Wires - 4
Wire Bending Pliers - 4
Parallel Pliers, flat nosed, approx. L 160mm - 4
Wire Cutter, large, approx. L 200mm - 4
Wire Cutter, short, approx. L 175mm - 4
Bending Iron, for Kirschner Wires 1.25 to 2.5mm dia. - 1
Cerclage Wire, 1.0mm dia., with approx. eye L 280mm - 2
Cerclage Wire, 1.25mm dia., with approx. eye L 280mm - 2
Wire Mount – 4

I. 4.5 / 4.0 mm Cannulated set

- 2 Sets

Drill Bit 1.5mm, approx. L110/85 2flute - 1
Drill Bit 3.2/1.75 cann approx. L170/140 4flute - 2
Countersink-cann 4.5 mm - 1

T-Handle w/Quick-Coupling - 1
Double Drill Guide 4.5/3.2 mm - 1
Parallel-Guide for Guide-Wires 1.6 mm adjust -1
Trocar 1.6 /4.5 mm - 1
Drill Sleeve 3.2/1.6 /4.5mm - 1
Drill Sleeve 7/3.2 /4.5 mm - 1
Protect-Sleeve 9.5/7 /4.5 mm - 1
Screw Driver-hex-cann 4.5mm - 1
Holding-Sleeve - 1
Direct Measuring-Device 4.5mm -1
Clean-Stylet 1.6mm - 1
Hold-Clip for Washers - 1
Screw Forceps self-hold approx. L85mm - 1
Guide Wire 1.6mm, with thread-tip with trocar approx.L15mm -10
Aluminium Case, perforated - 1
Screwdriver Shaft, hexagonal, large, approx. L 100mm - 1
Screwdriver hexagonal, large 3.5 mm with groove approx. L280 mm -1

NOTE: The Instrument should be usable for 4.5 as well as 4.0 mm cannulated screws.

J. Hemi Replacement Instrument Set

– 1 Set

The following instruments are made of good quality of stainless steel

S. No.	DESCRIPTION	QTY.
a)	Hemire placement Instrument Set Complete With trial A.M. Prosthesis one each of sizes From 39mm to 54mm	1 set

K. Manual Plaster Removal Set Complete

- 2 sets

Each Set Should Contain the following instruments are made of good quality of stainless steel

<u>S. No.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
i.	Cast Spreader Beeson 30cm:	1No.
ii.	Model U.S.A.:	1No.
iii.	Engle Plaster Swa:	5Nos.
iv.	Stille Plaster Shear 37 cm:	1No

L. Rigid Reamers set for intramedullary reaming –complete set – 2 Sets

- a) Each Set Should Contain the instruments made of good quality of stainless steel
- b) Can ream intramedullary canal with ease (Large Bones & Small Bones) with ease.
- c) Set should come along with variable Reamer diameters.

M. Flexible Reamers set for intramedullary reaming –complete set – 2 Sets

Each Set Should Contain the following instruments are made of good quality of stainless steel

<u>S. No.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
i)	The reaming system intended for reaming large bones and small bones should be able to provide secure reduction.	
ii)	The system should facilitate reduced pressure and minimal heat builds up during its application in surgery.	
iii)	The system should have easy handling and should provide optimal cleaning.	
iv)	The system should comprise of suitable size reamer heads with the NITINOL (super elastic) shaft.	
v)	The system should be capable of reaming both clockwise and anticlockwise.	
vi)	The system should come along with reamer diameters of 8.5-13.5mm.	
vii)	The starting reamer of 8.5mm must be equipped with front cutting edges	
viii)	The reaming rod should not be less than 950mm and not more than 1150mm with diameter not more than 2.5mm.	
ix)	The shaft should be compatible with the feature of non-manual insertion of the reamer head directly from the tray.	
x)	The system should come along with the reduction head for fragment reduction with curved and straight tip the displacement of which should not be more than 2.5mm.	
xi)	The reaming system should be made available with the appropriate T-Handle which should be compatible to hold the shaft manually without the power drive.	
xii)	The system should come along with appropriate size of guide wire for reaming of the large bones and should carry a tissue protector.	

- xiii) The system should have a Tissue Protector with a length of 140mm
- xiv) The system should have a T-Handle with quick coupling with a length of 85mm
- xv) Removing Tool for Ream should be available for removing reamer heads from the reaming shaft
- xvi) One hand reamer should be available with a diameter of 8mm for predrilling in pseudarthroses
- xvii) The system should have a reaming rod of 2.5mm diameter and length of 950mm and an olive tip of 3.5mm
- xviii) 7mm diameter flexible shaft should be available which gives a reaming depth to 470mm
- xix) Cleaning Brush for 3.6mm Flexible Shaft of 600mm should be available in the set
- xx) Straight reduction head should be available in the set
- xxi) Reduction Head for displacement 2.5mm should be available in the set
- xxii) Reamer Heads starting from 8.5 to 13.5 in increments of 8.5 should be available with 8mm reamer being front cutting.

SCHEDULE 2

2. Small Fragment sets – Qty per Set

- 1 Set

Aluminium Case, perforated - 1
Drill Bit, 2.5mm dia. approx. L 110/85mm for quick coupling - 2
Drill Bit, 3.5mm dia. approx. L 110/85mm, for quick coupling - 2
Countersink Shaft 3.5, approx. L 72mm - 1
Tap for 3.5mm Cortex Screws - 2
Tap for 4.0mm Cancellous Bone Screws - 2
T-Handle with quick coupling, approx. L 80mm - 2
Double Drill Sleeve - 3.5/2.5 1
Insert Drill Sleeve 3.5/2.5, approx. L 42mm Drill Bit 2.5mm dia. - 1
Screwdriver, hexagonal, small, with Holding Sleeve - 1
Screwdriver Shaft, hexagonal, small, approx. L 100mm, for quick coupling - 1
Screwdriver, hexagonal, small, with groove, approx. L 200mm -1
Holding Sleeve approx. L 80mm -1
Depth Gauge for 2.7mm to 4.0mm Screws -1
Sharp Hook, approx. L 155mm - 1
Holding Clip 4.5 - 7.0mm - 2
Screw Forceps, self-retaining, approx. L 85mm - 1
DCP Drill Sleeve 3.5 for neutral and load position - 1
Bending Iron, slit widths 4.5/2.5mm, approx. L 150mm, for Plates 2.7 and 3.5 - 1
Bending Iron, slit widths 2.5/4.5mm, approx. L 150mm, for Plates 2.7 and 3.5 - 1
Bending Pliers for Plates 2.4 to 4.0mm - 1
Bending Template for DCP 3.5 and LC-DCP 3.5 approx. L 80mm - 1

Bending Template for DCP 3.5 and LC-DCP 3.5 approx. L 110mm - 1
Wire Bending Pliers, approx. L 150mm - 1
Bending Iron, for Kirschner Wires 1.25 to 2.5mm dia., approx. L 120mm – 1

The instrumentation should allow for drilling, tapping, compression, neutralization buttressing and fixation of 3.5 mm cortical screws and 4 mm cancellous screws

SCHEDULE 3

3. Large Fragment sets – Qty per Set

- 1 Sets

Aluminium Case, perforated - 1
Drill Bit, 3.2mm dia. approx. L 145/120mm for quick coupling - 2
Drill Bit, 4.5mm dia., approx. L 147/120mm for quick coupling - 2
Countersink, large, approx. L 180mm - 1
T-Handle with quick coupling, approx. L 80mm - 2
Tap for 4.5mm Cortex Screws - 2
Tap for 6.5mm Cancellous Bone Screws - 1
Double Drill Sleeve 4.5/3.2 - 1
Double Drill Sleeve 6.5/3.2 - 1
Screwdriver Shaft, hexagonal, large approx. L 100mm - 1
Screwdriver, hexagonal, large, with groove, approx. L 240mm - 1
Holding Sleeve, large, approx. L 120mm - 1
Depth Gauge for 4.5 to 6.5mm Screws - 1
Sharp Hook, approx. L 155mm - 1
DCP Drill Sleeve 4.5 - 1
Universal Drill Sleeve 4.5 - 1
LC-DCP Drill Sleeve 4.5 - 1
Bending Template for DCP 4.5 and LC-DCP 4.5 approx. L 210mm - 1
Bending Template for DCP 4.5 and LC-DCP 4.5 approx. L 120mm - 1
Bending Template for DCP 4.5 and LC-DCP 4.5 approx. L 155mm - 1

The instrumentation should allow for drilling, tapping, compression neutralization, buttressing and fixation of 4.5 mm cortical screws and 6.5 mm cancellous screws.

SCHEDULE 4

4. External Fixator

i) Instruments – Made of Medical Grade Stainless Steel

The following instruments are made of good quality of stainless steel

S. No.	DESCRIPTION	QTY.
a)	Ilizarov Instrument Set Complete Each set should contain: i. Half Rings 140, 160, 180, 200 & 220 - 10 Nos. Each ii. 5/8 Rings as above 1 Each iii. Wire Fixation Bolt Cannulated 150 iv wire fixation bolt slotted 150 v. Connection Bolts 100 vi. Nuts 500 vii. Threaded Rod 100mm 125, 150, 200, 50, 300 - 10Nos. Each viii. Male Post & Female Posts 2,3 & 4 hole: 10 Nos. Each ix. Washers 150 x. Twisted Plates 2, 3, 4 hole: - 10 Nos. Each xi. K-Wires 1.8mm with trocar. 60 xii. K-wires 1.8mm with Bayonet 60	2 sets
b)	External Fixator Instrument Set Complete Each Set Should Contain i. Universal Clamps for 10 sets ii Tibia and Femur 60 Nos. iii. Tubular Rod assorted size 20,30 cm 10 Nos. Each iv. Schanz Pin 4.5 & 5mm 80 Nos. v. Tranverse Clamps 10 Nos vi. Tube to Tube Clamp 10 Nos vii. Delta Clamps 10 Nos viii. Mini Clamp 2.5mm 40 Nos. ix. Mini Clamp 3.5mm 40 Nos. x. Schanz Pin 2.5mm 40 Nos. xi. Schanz Pin 3.5mm 40 Nos.	6 sets

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	xii. Connecting Rods 15cm 5	
	xiii. Connection Rods 20cm 5	
	xiv. Spanner Stainless Steel 11mm 5	
	xv. Spanner Stainless Steel 8mm 5	
c)	Skull Traction Instrument Set Complete Each Set Should Contain 10sets	3 Sets
	i. Crutchfield Tongs 25 Nos	
	ii. Bur 1 No	
d)	Stapple Inserter, Extractor Set Complete With 50 Assorted Sizes Stapleg 4	3 Sets

Essential Criterias for all the above Instrument Sets:

1. The above mentioned manufactured to international standards (equivalent to AO Specification) by reputed MNC firms (Indian or Foreign) having **European CE certificates or USFDA certificates** of International Standard.
2. Company should have relevant experience in successful execution of similar work at least in five Institutes of national importance and Central Government Institutes.
3. **Company should be at least in its 5 years of operations at the date of submission of tender.**
4. Bidder must enclose original literatures & technical data sheet in the support of the technical bid.
5. Complete set of Instruments should be quoted otherwise the bids shall be summarily rejected and Sample for Physical demo is to be produced for evaluation as & when demanded.
6. Company should provide material certificates.
7. Material – Medical Grade Stainless Steel.
8. Grade- ISO 5832-1.
9. Wherever applicable, the instruments should contain the above for proper insertion, handling, cutting, bending, holding, and tightening of Cerclage, Kirschner wires.

SCHEDULE 5

5. Arthroscope

Specifications for Arthroscopy System: Complete Arthroscopy Set with high definition camera, HD monitor 26", Scope, General Instruments, Shaver System, ACL/PCL Reconstruction Set, Arthroscopy Pump System.

High Definition 3 chip Camera System:

1. Resolution of 1920X1080 pixels full HD progressive scan which displays 50-60 frames/sec 16:9/ 16:10 format. DVI, RGB, S-VHS video output. Inbuilt 16 step digital Image Enhancer on console – **1 No.**
2. Console – **1 No.**
 - i. Camera console 220 v with universal coupler & Flexible Scope filter.
 - ii. Shockproof prism mounting.
 - iii. Signal to Noise ratio-70 dB.
 - iv. 1080P Progressive scan technology both on camera head & console.
 - v. Aperture Control on console.
 - vi. Brightness Control on console & camera head.
 - vii. Two peripheral control on camera head. Digital zoom & white balance on camera head.
 - viii. Should have integrated optical zoom lens 15 -31 mm, to increase and decrease the size of image which should remain in focusing zone, without readjusting the focus.
 - ix. Should have USB/Image Capture Module interface for direct storage of still & video sequences and to print the still images or complete external video recording of medical grade should be provided.
 - x. The camera head should have integrated zoom and focus lens/rings to make it fully soakable.

LED Light Source 175 or more - 1 No.

- i. Light intensity is dimmable from zero to 100 percent and can be controlled via the camera head.
- ii. Universal jaw for accepting any make of fiber optic cable.
- iii. Adjustable light intensity from 0 to 100 percent; lamp life of >20000 hours.
- iv. Extra long Fiber Optic Cable, fully autoclavable.

High Definition Monitor 26" – 1 No.

High Definition monitor, screen 26", 1080p Full HD wide view monitor with aspect ratio of 16:10 / 16:9
Option for wall mounting and desktop in same unit.

Arthroscope Sets

Telescope compatible with HD Camera System, Autoclavable, fiber optic light transmission

- i. Wide Angle Forward Oblique, 4mm, 30 Deg, enlarged view, diameter 4 mm, length 16-18 cm – **2 Nos.**
- ii. Wide Angle lateral, 4mm, 70 Deg, enlarged view, diameter 4 mm, length 16-18 cm – **1 No.**
- iii. Forward oblique Telescope 30°, diameter 2.7mm, length 10 - 11 cm – **1 No.**
- iv. High Flow arthroscopic Sheath with snap incoupling mechanism diameter 6 – 7 mm, working length 13.5 cm, two stopcocks, for use with telescopes 0°, 30°, 70° with Obturators sharp and blunt (Two each) – **2 Nos.**
- v. High flow arthroscopy sheath with snap in coupling mechanism, diameter 3.5mm, working length 6 – 7 cm, two stopcocks, rotating, for use with 30° Telescope – **1 No.**

Shaver System

Console – **1 No.**

- Electronic Control Unit.
- Pre Programmed Memory.
- Shaving RPM 7000 or more, Oscillation mode 500-3000 RPM

Foot Control – **1 No.**

- Handpiece: Autoclavable, quick coupling of blades should be possible – **1 No.**
- Should be provided with a Small joint shaver handpiece – **1 No.**
- Should be provided with multifunction hand pieces, with Jacobs chuck (keyless) upto a diameter of 6.5mm, sagittal saw with attachment with blades, pin driver and synthes driver – **2 Nos each.**

Disposables – **30 Nos each.**

- Full radius resector.
- End cutter.
- Aggressive Cutter.
- Meniscus Cutter.
- Oval Burr

ACP/PCL Reconstruction Set - **1 No. Each.**

1. Tendon stripper, graduated, closed 5.5 mm length 30 cm.
2. Tendon stripper, graduated, closed 7 mm length 30 cm.
3. Tendon stripper, graduated, open 7.5 mm length 30 cm.
4. Tendon hook.
5. Thickness Tester for checking thickness of tendon 7-12 mm in intervals of 0.5mm.

6. Tibial Guide for ACL reconstruction.
7. Femoral Offset Guide, offset 3mm, 4mm, 5.5mm (for transtibial femoral preparation) - one each.
8. Femoral Offset Guide for anteromedial portal preparation, 7, 8, 9, 10mm offset-one each.
9. Reamers 4, 5, 6, 7, 8, 9, 10.
10. Length Gauge for measuring the tunnel.
11. Reaming Wire.
12. Curette.
13. Rasp.
14. Suture grasper.
15. Femoral target guide for outside in PCL reconstruction.
16. Femoral target guide with handle for PCL reconstruction for use through anterolateral portal 4 locking positions for drill 7, 8, 9, 10mm.
17. Tibial target guide for PCL, Straight, curved to left, curved to right-one each.
18. Thread catcher for PCL reconstruction.
19. PCL awl.
20. Raspator for PCL reconstruction.
21. Cannulated screw driver for Titanium and bioabsorbable interference screws – one each.
22. Notcher with fin like blade to assist in inserting interference screws.
23. Hook Probe: graduated, length of hook 3mm, diameter 1.5mm, working length 16 - 18 cm.

Graft Preparation board – 2 Nos.

- Graft board with gliding sliders for easy and single handed operations.
- Suitable for single bundle, double bundled and bone tendon bone BTB repairs.
- Compatible with endobutton type fixation devices.
- Built in sizers for the graft (both soft tissue and bone).
- Provisions for specific graft tensions.
- Graft clamp teeth for securing graft for tensioning during preparations

Arthroscopic Pump System with Tubing:

1 No. each of following:

- Should be able to control the inflow and outflow of the fluid in the joint.
- Should be able to maintain constant higher pressures when required.
- Should give ripple free fluid flow.
- Pole mount or stand alone system.
- Digital display of pressure.
- Maximum flow rate of 2000ml/minute with maximum pressure upto 150 mm Hg.
- The tubing should have a back flow restrictor.

- Should be operable on mains.

Disposables: Arthroscopic Inflow/Outflow tubing (10-15 ft) set with connector – **30 Nos.**

High Definition Recording System – 1 No.

- i. Real time, MPEG 2 HD, 1 or 2 compression engine with full IBP encoding.
- ii. Video inputs should be 2 nos. DVI with resolutions of 1920 x 1080 P.
- iii. Video outputs should be DVI with resolutions of 1920 x 1080 P.
- iv. Capable of Progressive scan image capture: Digital with (1920 x 1080) resolutions.
- v. Disc Capacity of 2 TB.
- vi. Touch screen at least of 12” or more In built screen.
- vii. Multi session disc recording capability Supports file formats for images: Bitmap (BMP), JPEG, JPEG2K

Modular Cart - 1 No.

- i. Made of rust free material, of same manufacturer as the rest of arthroscopy system.
- ii. Front-locking casters.
- iii. Lipped top holds monitor.
- iv. Four equipment shelves.
- v. Open back for equipments access.
- vi. Power bar with 8 AC outlets and 14.5 foot power cord

Floor suction pump - 1 No.

1. A re-usable floor suction plate which can be connected to standard suction machine in the Operating room.
2. Should have a detachable telescoping handle and connector.
3. Should have arrangement for removal of excess irrigation fluid to avoid flooding.
4. Should be easy to clean and user friendly.

Arthroscopic leg holder with all round padding, 360 swivel and rotating, height adjustable with appropriate clamp to fit into the side rail of table – **1 No.**

Bidder will be responsible for installation and commissioning of complete high definition arthroscopy system in modular theatres.

All components should be USFDA/European CE certified.

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The following Hand instruments must be provided with the system:

All hand instruments should have one piece out shaft with excellent control over the cutting process	
Punches	
All purpose, low profile not more than 2.4 – 3.4 mm enables access to structures in narrow joint areas with large aperture angle allows efficient resection. Should have and ergonomic handle for controlled, measured and non tiring cutting.	
Punches cutting width 2.5-2.7mm Qty-1 each	
Straight cutting width 2.7 mm, shaft diameter 3.5 mm Working length 12-14 cm.	1
Upturned 15 deg Cutting width 2.7 mm, shaft diameter 3.5 mm, working length 12-14 cm.	1
Jaws curved 30 deg left Cutting width 2.7 mm, shaft diameter 3.5 mm, working length 12-14 cm.	1
Jaws curved 30 deg right Cutting width 2.7 mm, shaft diameter 3.5 mm, working length 12-14 cm.	1
Jaws curved 90 deg right Cutting width 2.7 mm, shaft diameter 3.5 mm, working length 12-14 cm.	1
Jaws curved 90 deg right Cutting width 2.7 mm, shaft diameter 3.5 mm, working length 12-14 cm.	1
Punches cutting width 3.3-3.5mm Qty-1 each	
Straight Cutting width 3.4 mm, shaft diameter 3.5 mm, working length 12-14 cm.	1
Upturned 15 deg Cutting width 3.4 mm, shaft diameter 3.5 mm, working length 12-14 cm.	1
Jaws curved 30 deg left Cutting width 3.4 mm, shaft diameter 3.5 mm, working length 12-14 cm.	1
Jaws curved 30 deg right Cutting width 3.4 mm, shaft diameter 3.5 mm, working length 12-14 cm.	1
Jaws curved 90 deg right Cutting width 3.4 mm, shaft diameter 3.5mm, working length 12-14 cm.	1
Jaws curved 90 deg right Cutting width 3.4mm, shaft diameter 3.5 mm, working length 12-14 cm.	1
Scissor Punch, Qty-1 each	
Straight Cutting width 0.5-1.0 mm, shaft diameter 3.5mm, working length 12-14 cm.	1
Shaft curved left Straight Cutting width 0.5-1.0 mm, shaft diameter 3.5mm, working length 12-14 cm.	1
Shaft curved right Straight Cutting width 0.5-1.0 mm, shaft diameter 3.5mm, working length 12-14 cm.	
Grasper Qty-1 each	
Straight spoon shaped jaws Shaft diameter 3.5 mm, Working length 12-14 cm.	1
Aggressive foreign body grasper Shaft diameter 3.5mm, Working length 12-14 cm.	1
30 deg upturned spoon shaped Shaft diameter 3.5 mm, Working length 12-14 cm.	1
Rasp and Curette	1
Oval curette curved 10 deg, length 12-13 cm.	1
Oval curette curved 30 deg, length 12-13 cm.	1
Rasp straight, narrow, fine working length 12-13 cm.	1
Rasp narrow curved, Working length 12-13 cm.	1
Instruments for meniscus repair	

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inside techniques of meniscus repair for posterior horn area of lateral and medial meniscus. Suture material used with the set should be mono filament 2-0 to 2	1
Handle for suture attachments	1
Wheel attachment to roll suture	1
Suture attachment straight, hook shaped, length 12-13 cm.	1
Suture attachment angled 180 deg right, length 12-13 cm.	1
Suture attachment angled 180 deg left, length 12-13 cm.	1
Suture attachment angled 360 deg right, length 12-13 cm.	1
Suture attachment angled 20 deg upward, length 12-13 cm.	1
Suture attachment angled 20 deg upward, length 12-13 cm.	1
Cannula to use with suture attachment	1
Obturator Cannula	1
Knot pusher	1
Suture curette, for retinaculum suture with handle	1
Thread grasping forceps	1

NOTE:

1. Offline UPS of minimum 2 KVA (or of suitable rating) with SMF battery having Half Hour back-up is to be supplied with the instrument.
2. Atleast Arthroscope, HD Camera, LED light Source, HD Monitor, Shaver System, Arthroscopic Pump System with tubings & HD Recording System should be from the same manufacturer for the system compatibility.

SCHEDULE 6

6. Plaster Room Equipment Set with Plaster Table 2 Nos.

Plaster Room Equipment Sets have been described at Schedule Item No. 1 B & 1 K above. 2 Nos. of Plaster Tables is required to be provided.

PLASTER TABLE:

Should be double articulation and to its low and wide frame. The plaster table should be very sturdy for utilisation together with the optional stand. The dorsal part and the legs should be individually adjusted in every position. The leg parts should be adjustable separately till a down angle of 90°. The plaster table should be adjustable in height by electrical or hydraulic actuator with foot or hand control. The plaster table should be equipped with castors and with a central locking which allows the castors to brake simultaneously.

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Specifications of the plaster table:

- Dimensions: Appox 185 x 60cm (without stand), 205 x 60cm (with stand).
- Adjustable height: Appox 65 - 115cm.
- Capacity: Appox 175kg.
- The frame should be epoxy painted.
- Should require very little maintenance on the articulations and the mobile parts.

Accessories with plaster table:

- Monkey pole
- Stuffed knee support with adjustable horizontal tubes
- CD – line upholstery
- Bar-switch system Plaster E
- Extra-wide/special width (70 cm)
- Pedal switch system + T plug
- Hand switch system + T plug

LIST OF REQUIREMENTS

DEPARTMENT OF ORTHOPEDICS

Please refer below the List of Requirements for any changes in Quantity, EMD, deletion of any items etc:

Schedule No.	Sl. No.	Name of the Article	QTY	EMD (in IRs)
1	1	Basic Instrumentation set for Fracture	2 sets	25,000/-
2	2	Small Fragment	1	20,000/-
3	3	Large Fragment	1	20,000/-
4	4	External Fixator	3	50,000/-
5	5	Arthroscope	1	75,000/-
6	6	Plaster room equipment (sets) with Plaster table.	2	30,000/-