

D	LAPCHOLE SET		10 Sets				
	consisting of :-						
	a) S.S. Tray	01					
	b) Kidney Tray	02					
	c) Spounge Holding Forceps	02					
	d) Curved Scissors	02					
	e) Straight Scissor	01					
	f) Non Tooth Forceps	02					
	g) Tooth Forceps	02					
	h) Various Needle	01					
	i) Morris Retector	02					
	j) Dever Retector Different Small size	05					
	k) Disjoin store holding Forceps (Straight or Curved	02					
	l) Catpaw	02					
	m) Artery	06					
	n) Straight Artery	06					
E	VERICOSE VEIN SET		05 Sets				
	Verisocse Vein Stappptener with jar	02					
F	DRESSING SET		10 Sets				
	consisting of :-						
	a) Kidney Tray	01					
	b) Artery Curved	02					
	c) Bawl	01					
	d) Plain Forceps	01					
G	GALL BLADER SET		10 Sets				
	consting of :-						
	a) S.S. Tray	01					

	b) Morris Retector	02					
	c) Dever Retector	05					
	d) Long Curved Scissor	01					
	e) Long Dissecting Forceps	01					
	f) Needle Holder Long	01					
	g) Monium Forceps	06					
	h) Long Straight Artery	06					
	i) Common By Duck Dialator Different with Curved	11					
	j) Beacock	02					
	k) Lehy Forceps	02					
	l) Disjoin Stone Holding Forceps	02					
	m) Sisso Latomy Stone Holding Forceps	01					
	n) Long Kidney Tray	01					
H	FISTULA SET		10 Sets				
	consisting of :-						
	a) S.S. Tray	01					
	b) Proctoscope	01					
	c) Anal Retector with Blade	01					
	d) Probe	01					
	e) Dissecting Forceps	01					
I	PLASTIC SURGERY SET		10 Sets				
	consisting of :-						
	Sponge Holder	02					
	Needle Holder Fine 6 inch (Golden	02					
	Needle Holder Fing Long 8 inch	02					
	Right Angle Retractor	02					
	Small Right Angle Retractor	02					
	Cat Paw Retractor	02					
	Double Hook Retractor	02					
	Single Hook Retractor	02					
	Long Single Hook Retractor	02					
	Small Round Retractor	02					

	Plain Dissecting Forceps	02					
	Tooth Forceps	02					
	Dissecting Scissor (Fine)	02					
	Dissecting Scissor Long 4 inch	02					
	Dissecting Scissor Long (Fine)	02					
	Stich Cutting Scissor	02					
	B.P. Handle (Small)	02					
	B.P. Handle (Large)	02					
	Curved Artery Forceps (Fine)	10					
	SuctionNozal (Fine)	04					
20	Retractor and light source and suction for breast surgery		2				
	Make >>						
	Model >>						
	Sole Agent In Pakistan>>						
21	Surgical instrument set for orthopedic						
	Make >>						
	Model >>						
	Sole Agent In Pakistan>>						
A	<u>Bone Forceps Set</u>		01-Set				
	<u>Consist of Following:</u>						
	Self-centering Bone Holding Forceps w/Speed Lock, Size 1, 240mm		1				
	Self-centering Bone Holding Forceps w/Speed Lock, Size 2, 260mm		1				
	Self-centering Bone Holding Forceps w/Speed Lock, Size 3, 280mm		1				
	Reduction Forceps w/Serrated Jaws, Speed Lock, 240mm		2				
	Reduction Forceps w/Speed Lock, 180mm		1				
	Reduction Forceps w/Points, Ratchet, 200mm		1				
	Bone Forceps Case		1				
	Complete Job: Supply, Installation, Testing, Commissioning and Maintenance (during maintenance period)						
	Country of Origin: USA, EEC, Japan or Equivalent						

Graphic Case, for Hip Preservation Surgery Set	1				
Straight Pelvic Osteotomes, 15mm blade width	1				
Straight Pelvic Osteotomes, 20mm blade width	1				
Angled Pelvic Osteotomes, 15mm blade width	1				
Angled Pelvic Osteotomes, 20mm blade width	1				
Short Angled Pelvic Osteotome, 15mm blade width	1				
Bayonette Pelvic Osteotomes, 15mm blade width	1				
Bayonette Pelvic Osteotomes, 20mm blade width	1				
Flag Pelvic Osteotome, 20mm blade width	1				
Curved Pelvic Osteotomes, 15mm blade width	1				
Curved Pelvic Osteotomes, 20mm blade width	1				
Pelvic Osteotomes, 304mm, 15mm	1				
Pelvic Osteotomes, 304mm, 20mm	1				
Femoral Head Templates, 42mm Diameter	1				
Femoral Head Templates, 44mm Diameter	1				
Femoral Head Templates, 46mm Diameter	1				
Femoral Head Templates, 48mm Diameter	1				
Femoral Head Templates, 50mm Diameter	1				
Femoral Head Templates, 52mm Diameter	1				
Femoral Head Templates, 54mm Diameter	1				
Femoral Head Templates, 56mm Diameter	1				
Femoral Head Templates, 58mm Diameter	1				
Aluminum Spoon Retractors, Medium	1				
Aluminum Spoon Retractors, Large	1				
Malleable Retractors, 330mm Long, 20mm wide	1				
Malleable Retractors, 330mm Long, 30mm wide	1				
Malleable Retractors, 330mm Long, 40mm wide	1				
Aluminum Blunt Pelvic Retractor	1				
Aluminum Hohmann Retractors, 8mm, short narrow tip	1				
Aluminum Hohmann Retractors, 22mm, wide tip	1				
Aluminum Hohmann Retractors, 35mm, width	1				
Aluminum Hohmann Retractors, 18mm, width	1				
Aluminum Hohmann Retractors, 24mm, width	1				
Chisel Handle, Synthetic, autoclavable	1				
Chisel Blades, 10mm width	1				
Chisel Blades, 10mm width, long	1				

	Chisel Blades, 16mm width	1				
	Chisel Blades, 16mm width, long	1				
	Chisel Blades, 25mm width	1				
	Chisel Blades, 25mm width, long	1				
	Chisel Blades, 5mm width	1				
	Chisel Blades, 5mm width, long	1				
	Complete Job: Supply, Installation, Testing, Commissioning and Maintenance (during maintenance period)					
	Country of Origin: USA, EEC, Japan or Equivalent					
F	<u>Large Distractor Set</u>	01-Set				
	<u>Consist of Following:</u>					
	Drill Bit, $\phi 3.8$	2				
	Bone Screw, length 150mm	4				
	Bone Screw, length 175mm	4				
	Bone Screw, length 200mm	4				
	Drill Sleeve $\phi 3.5$, for Drill Bits	2				
	Drill Sleeve $\phi 5.0$, for Drill Bits	2				
	Trocar	2				
	Universal T-Handle with Quick Coupling	1				
	Key	1				
	Combination Wrench	1				
	Sliding Carriage with Adjusting Nut	1				
	Holding Sleeve with Wing Screw, long	2				
	Holding Sleeve With Wing Screw, short	2				
	Pin Wrench	1				
	Knurled Nut	3				
	Double Joint, complete	1				
	Threaded Rod, long	1				
	Threaded Rod, short	1				
	Instrument Case	1				
	Complete Job: Supply, Installation, Testing, Commissioning and Maintenance (during maintenance period)					
	Country of Origin: USA, EEC, Japan or Equivalent					

G	<u>Small Fragment Instrument Set</u>	02-Set				
	<u>Consist of Following:</u>					
	Double Drill Guide, $\phi 2.5/\phi 3.5$	1				
	Double Drill Guide, $\phi 2.5/\phi 3.0$	1				
	DCP Drill Guide $\phi 2.5$, for neutral and load position	1				
	Depth Gauge	1				
	T-Handle With Quick Coupling	1				
	Countersink, for Quick Coupling	1				
	Tap for Cortex Screws $\phi 3.5$	1				
	Tap for Cancellous Screws $\phi 4.0$	1				
	Bending Template for DCP 3.5 and LC-DCP 3.5	1				
	Bending Template for Straight Reconstruction Plates 3.5	1				
	Bending Iron, left	1				
	Screw Forceps, self-holding	1				
	Screwdriver Shaft, hexagonal, $\phi 2.5$	1				
	Holding Sleeve	1				
	Screwdriver, hexagonal, $\phi 2.5$	1				
	Reduction Forceps with Points	1				
	Bone Holding Forceps, self-centering	2				
	Extraction Screw for Screws, $\phi 2.5$	1				
	Broken Screw Extractor	1				
	Drill Bit, $\phi 2.5$	5				
	Drill Bit, $\phi 3.0$	1				
	Periosteal Elevator, round edge	1				
	Periosteal Elevator, straight	1				
	Bone Lever, small	1				
	Bone Lever, large	1				
	Bending Iron, right	1				
	Instrument Case	1				
	Complete Job: Supply, Installation, Testing, Commissioning and Maintenance (during maintenance period)					
	Country of Origin: USA, EEC, Japan or Equivalent					
H	<u>Large Fragment Instrument Set</u>	02-Set				

	Consist of Following:					
	Double Drill Guide, $\phi 3.2/\phi 4.5$	1				
	Double Drill Guide, $\phi 3.2/\phi 6.5$	1				
	DCP Drill Guide, $\phi 3.2$	1				
	Drill Guide, pointed	1				
	Drill Sleeve Insert with Stop for Screws $\phi 4.5$	1				
	Drill Sleeve for Drill Bits, $\phi 3.2$	1				
	Depth Gauge	1				
	T-Handle with Quick Coupling	1				
	Countersink, large, for Cortex Screws $\phi 4.5$	1				
	Tap for Cortex Screws $\phi 4.5$	1				
	Tap for Cancellous Screws $\phi 6.5$	1				
	Bending Template, long	1				
	Bending Template, short	1				
	Bending Iron, left	1				
	Screw Forceps, self-holding	1				
	Screwdriver Shaft, hexagonal, large, $\phi 3.5$	1				
	Screwdriver, hexagonal, large, $\phi 3.5$	1				
	Holding Sleeve	1				
	Reduction Forceps with Points	1				
	Bone Holding Forceps, self-centering, large	2				
	Extraction Screw for Screws $\phi 4.5$	1				
	Broken Screw Extractor	1				
	Drill Bit, $\phi 3.2$	5				
	Drill Bit, $\phi 4.5$	1				
	Periosteal Elevator, round edge	1				
	Periosteal Elevator, straight	1				
	Bone Lever, small	1				
	Bone Lever, large	1				
	Bending Iron, right	1				
	Instrument Case	1				
	Complete Job: Supply, Installation, Testing, Commissioning and Maintenance (during maintenance period)					
	Country of Origin: USA, EEC, Japan or Equivalent					
22	Orthopedic Drill	2-Set				

Make >>					
Model >>					
Sole Agent In Pakistan>>					
Consist of Following:					
• Modular Drive Hand Piece	2				
reverse forward option					
Double trigger system					
Cannulation of hand piece 4.0mm					
• Battery Charger	1				
4-Charging bays in single charger					
LCD screen to monitor charging					
Charging Volts: 21.6 Volts					
Power socket output 25.2 V/14 A					
• Power Module	4				
Capacity 3.1 Ah					
Voltage 21.6 Volts					
Led battery charge status indicator					
Charging short beep					
• Battery Case Autoclavable	4				
Steam sterilization at 2 bar 134 °C					
• Battery Funnel for Aseptic Battery Loading	4				
Steam sterilization at 2 bar 134 °C					
• Chuck with Key Drill Attachment	1				
cannulation 4.0mm					
Power Torque 7 NM					
Chucking range upto 6.35mm					
• Hybrid Chuck	1				
Both keyed & keyless operation					
cannulation 4.0mm					
Power Torque 7 NM					
Chuck range upto 6.35mm					
• AO Quick Coupling Attachment	1				
Power Torque 7 NM					
• Quick Coupling for Kirshner Wires Attachment					
a: Cannulation upto 0.7-2.5mm	1				

Power Torque 7 NM					
b: Cannulation upto 1.5 - 4.0mm	1				
Power Torque 7 NM					
• Hudson Drill Attachment	1				
Cannulation 4.0mm					
Power Torque 7 NM					
Speed: 300 RPM					
• AO Reamer Attachment	1				
Cannulation 4.0mm					
Power Torque 7 NM					
Speed: 300 RPM					
• Sagittal Saw Attachment Short/Mini	1				
Length 56 x 80mm					
Wright: 410gm					
• Sagittal Saw Attachment Long/Large Fragment	1				
Length 56 x 165mm					
Wright: 640gm					
• Oscillating Saw Hand Piece	1				
12000-16000 Oscillating per min					
Weight without lid 1.14Kg					
Oscillating angle 4.5 degree					
• Lubrication Spray	6				
• Saw Blades					
Saw Blade Size 13 x 90 x 1.27	5				
Saw Blade Size 19 x 90 x 1.27	5				
Saw Blade Size 18.5 x 68 x 0.8	5				
Saw Blade Size 15 x 23 x 0.6	5				
Saw Blade Size 10 x 25 x 0.6	5				
• Power Cord for Direct Use	1				
Steam sterilization at 2 bar 134 °C					
Weight 310gm					
• Sterilization Container					
Basket with silicon fixation for hand piece 540 x 253 x 113mm	1				
Basket with silicon fixation for battery cases 540 x 253 x 113mm	1				
Sterilization Container 600 x 272 x 138mm	1				
Led for sterilization container 602 x 285mm	1				

	• Label Paper with Indicator	100				
	• Modular Autolock Mechanish	2				
	• Security Seal	100				
	Complete Job: Supply, Installation, Testing, Commissioning and Maintenance (during maintenance period)					
	or Equivalent					
	Country of Origen: USA, EEC, switzerland					
23	Surgical instrument set for ENT					
	Make >>					
	Model >>					
	Sole Agent In Pakistan>>					
a	Aural Probe	20 Nos				
b	Allis Forceps	20 Nos				
c	Cat Paw	20 Nos				
d	Drum	20 Nos				
e	Dissecting Forceps Plain	20 Nos				
f	Dissecting Forceps Plain	20 Nos				
g	Dissecting Forceps Tooth	20 Nos				
h	Small Bowel	20 Nos				
i	Hudesen tooth and Plain Forceps	20 Nos				
j	Killain Nasal Speculum	20 Nos				
k	Scissor Straight 4, 6, 8 inch	20 Nos				
l	Curved Dissecting Scissor small 4 inch	20 Nos				
m	Curved Dissecting Scissor small 6-8 inch	20 Nos				
n	Iron Scissor (Curved) Small 4	20 Nos				
o	Bab Cock	20 Nos				
p	Needle Holder Medium	20 Nos				
q	Otoscope	20 Nos				
r	Towel Clip	20 Nos				
s	Suction Nozzle	20 Nos				
t	Hudson Plain Forceps	20 Nos				
u	Hudson Tooth Forceps	20 Nos				
v	Curved Artery Forceps Medium Pointed 6 inches	20 Nos				

w	Curved Masuto Artery Forceps 4 inches	20 Nos				
x	Killion Nasal Speculam Small 2 inches	20 Nos				
y	Killion Nasal Speculam Small 3 inches	20 Nos				
z	Turbineotomy Nasal Scissor	20 Nos				
aa	Bowl for Ear Surgery	20 Nos				
ab	Ligter	20 Nos				
ac	Five Needle	20 Nos				
24	Surgical instrument set for Cardio Thoracic					
	Make >>					
	Model >>					
	Authorized Agent>>					
A	Thoracic Surgery Set	02 Sets				
a	Knife BP Handle for blade (10-15) and 40-42), 8-1/2"	2				
b	Tissue Forceps DeBakey 1.5mm tip 6"/8" 1 each	2				
c	Tissue Forceps DeBakey 3.0mm tip 6"/8" 1 each	2				
d	Plain Dissecting Forcep 10"	2				
e	Insulated Touch Forcep 10" straight	1				
f	Metzenbeum Scissors 7" T/C curved fine	2				
g	Nelson-Metzenbeum Scissor 9" curved T/C	2				
h	Steven Dissecting Scissors (Delicate) 4-1/2" curved	2				
i	Diethrich Hegemann Potts Scissors 45 dig R/Angle 7"	2				
j	Harrington Scissors light sharp blunt curved blades 10.5"	1				
k	Gemini Thoracic Forceps acutely curved jaws 9"	2				
l	Villauer Allis Tissue Forceps 4x5 teeth fine 10"	2				
m	Duval Lung Grasping Forcep 1/2 jaws 7"	1				
n	Duval Lung Grasping Forcep 1/2 jaws 8"	2				
	Mixture Thoracic Forceps long useful for deep dissections a bronchus clamps 8", 9-1/2" with 1-1/4" serrated	2				
o						
p	Ryder Needle holder T/C tip 6" fine	2				
q	Ryder Needle Holder 9" Fine T/C Jaws	1				
r	Wangensteen Needle Holder T/C tip fine 10-1/2"	1				

s	DeBakey Needle Holder T/C Tip Fine 8"	1				
t	Mayo Hagger Needle Holder T/C 10"	1				
u	Derra-Anastomosis Clamps DeBakey Small	1				
v	Derra-Anastomosis Clamps DeBakey Medium	1				
w	Derra-Anastomosis Clamps DeBakey Large	1				
x	Finochieto rib spreader 45mmx65mmx120mm strong centering operation system complete CNC Work	1				
y	Finochieto rib spreader (Height) 30mmx30mmx80mm strong centering operation system complete CNC Work	1				
z	Sternal Spreader self retaining with two pair of fixed sternal blades total opening 8" 28x38-mm Blades	1				
aa	Doyen Raspotries Left hand Adult 8"	1				
ab	Doyen Raspotries Right hand Adult 8"	1				
ac	Semp Rib Raspotries (Periosteum elevator) set of 5 pcs special designed for chst surgery	1				
ad	Giertz stille Rib Shear D/Action 10" with Extra Sharp Shear	1				
ae	Kelley Retractor for deep surgery 147x50mm 10-1/4"	1				
af	Allison Lung Spatula Wire Made 40mm 10"	1				
ag	Allison Lung Spatula Wire Made 54mm 12-3. /4"	1				
ah	Bailey Gibbon 200-mm Rib Contractor	1				
ai	Williger Mallet 30mm dia 400gm	1				
aj	Mayo Rabosen Intestinal Clamp 9-1/2 straight long serration	1				
ak	Mayo Rabosen Intestinal Clamp 9 cruved Jaws non crushing	1				
al	Lengenbeck retractor with large blade	2				
am	Richardson Retractor 2.5"x2.5"	2				
an	Deaver Retractor 25x300mm	1				
ao	Deaver Retractor 28x300mm	1				
ap	Deaver Retractor 50x300mm	1				
aq	Wire Twister 8" Needle Holder Special for Sternum Wire	1				
ar	Wire Cutter Tungsten Carbide edge D/A Large Curved Jaws 9"	1				
as	Cup Curette Long fig 5,6,7 straight polish/sharf edge cup	3				
at	Cup Curette Long fig 5,6,7 curved polish/sharf edge cup	3				
au	Curette long fig-3 forward edge	1				
av	Bone Cutter D/Action 45-dig cutting Jaws 9-1/2"	1				
aw	Lexal Stille Bone Ronger side Angle fine lower jaw special designed low space ribs 9/1/2" 3-mm and 5mm 1 each	2				

ax	Leur Stille Bone Ronger Double Action Up Curved 9" special designed low space ribs 9/1/2 3mm, 5mm and 8mm 1 each	3				
ay	Lempert Rongeur 6-1/2" single action	1				
az	Suction Tube Perforator end 14" 90-dig special designed for chest surgery.	1				
ba	Suction Tube Perforator End 16" 45-dig special designed for Chest Surgery.	1				
bb	Plenk-Matson Raspatories D/End one piece construction 8-3/4"	1				
bc	Joseph file 8" with Hollow Handle	1				
bd	Leeland Vascular Clamp 25-dig Medium	1				
be	Leeland Vascular Clamp 45-dig Medium	1				
bf	Leeland Vascular Clamp 60-dig strong large	1				
bg	DeBakey Vascular Clamp 45-dig Strong 6"	1				
bh	Stansky vascular clamp (DeBakey) 20-CM, 25-CM and 26.5CM set of 3 pcs different size of Jaws 1 each	3				
bi	Peristeam Elevator Fiber handle Round Sharp edge Small/Medium and Large 8" 1 each	3				
bj	Peristeam Elevator Fiber handle Square Sharp edge Small/Medium and Large 8" 1 each	3				
bk	O' Shaugnessy Clamp Medium extra fine Jaws	1				
bl	Alexander Elevator Double End Fine Sharp D/Edge	1				
bm	Self Centering Screw Bone Holder 7/1/2 special designed for Ribs	2				
bn	Pliers Board tip for wire pulling/adjusting 7" of sternum wire	2				
bo	Instruments sterilizing Box 20X08"x06"St.Steel perforator up and down side dual lock system and holder (Aluminium)	1				
bp	Pilling spong holder 34cm long for VATS Surgery, Different angles and shaped, set of 4 pcs straight/side curved/C-shaped and up curved	4				
bq	Curved Artery forceps 11" with fine tip	4				
br	Clip Applier for Clip S-100, medium-200 and large 400 size, length 9-1/2" 1 each	3				
bs	Suture Applicator as per instruction	1				
bt	Deaver Retractor small size width, 7/8" length standard	1				
bu	Mastoid self etaining retractor 6" special designed for chest surgery set of two pieces standard prongs					
bv	Mastoid self etaining retractor 8" special designed for chest surgery set of two pieces long prongs	1				
bw	Mastoid self etaining retractor 9" special designed for chest surgery set of two pieces long prongs	1				
bx	Mosquito Artery Forceps	10				

by	Standard Artery Forceps 6-inch	10				
B	<u>VATS SURGERY INSTRUMENTS</u>	02 Sets				
	Make >>					
	Model >>					
	Authorized Agent>>					
a	DeBakey Cooley Foceps 10mm shaft 80-dig	1				
b	DeBakey Cooley Foceps 10mm shaft 80-dig 35mm angled Jaws 33cm long W/O Ratchet used for blunt dissection to mobilized and encircle the artery vien, branches (Longitidinal serration)	1				
c	Long Grasping Duval Champs 10-mm shaft 15-mm triangel ring 75 mm long jaws 40cm long	1				
d	Mixture Disecting Forceps 33-CM Length with ratchet 80-dig up jaws	1				
e	Foerster long clamps 8mm shaft 5mm jaws oval ring jaws with Ratchet 33cm long	1				
f	Foerster long clamps 10mm shaft 70mm oval ring jaws with Ratchet 40cm long	1				
g	Foerster lung Clams 5mm shaft 110mm oblong Ring Jaws with Rachet 40cm Long	1				
h	DeBakey Lung Clamp wide jaws 1x2.08mm shaft 65mm straight Jaws with Ratchet 33cm long	1				
i	DeBakey Lung Clamp wide jaws 1x2.08mm shaft 65mm curved Jaws with Ratchet 33cm long	1				
j	DeBakey Lung Clamp wide jaws 8mm shaft D-Amico Tapered 1x2 DeBkey Jaws with Ratchet	1				
k	Harken Long 1 Clamps 10mm Shaft Tapered 1x2 DeBkey Jaws with rachet	1				
l	Harken 2 Long Clamps 10mm Shaft Tapered 1x2 DeBkey Jaws with rachet	1				
m	Metzenbaum scissor 08mm shaft straight blade 20mm 33cm long	1				
n	Metzenbaum scissor 08mm shaft curved blade 20mm 33cm long	1				
o	Metzenbaum scissor 08mm shaft straight blade 15mm fine shape edge 33cm long	1				
p	Tungsten Carbidge Jaws Needle Holder for 4.0 and smaller suture 33cm long	1				
q	Tungsten Carbidge Jaws Needle Holder for 40cm long.	1				
r	Allis Tissue Forceps for grasping and manipulating tissue 7mm shaft 45mm wide Jaws 33cm long	1				
s	Dennis Disecting 7mm shaft serrated Jaws to pass silk ties of a rubber tube into the operativefield for encircling the artery vein or brochers	1				
t	Yanker Tube Passer to secure grasp shed tubes to exteriorized them through the chst wall 33cm	1				

u	Chest Tube Passer to secure graspy chst tube to exteriorized them through the chest wall 30mm shaft 1.5cm 33-CM long	1				
v	Scalane D Amico Biopsy forceps 6x8mm width oval ring Jaws 33cm Long	1				
w	Instrument Sterilizing Box Aluminium size 18x8x6 inches with silicon Pad	1				
C	Mediastinoscope with all Accessories	02 Sets				
	Make >>					
	Model >>					
	Authorized Agent>>					
a	Mediastinoscope (Export Quality)	1				
b	Cariens Mediastinoscope Long Tube Working Length 14.5cm with Fiber Optic Light Carrier Compleat set	3				
c	Light Source Fiber Optic	1				
d	Suction Tube Large 5mm Ferguson Type 12"	2				
e	Elongated Cup Biopsy Forceps Jaw With 4-mm working Length 11"	2				
f	Jakson Grasping Forceps Serrated Jaw width 2.5x6mm 11" working length	1				
g	Aspirating Needle Reinforced Angular Shaft Working Length 9" + protect cover	1				
h	Mediastinal Blunt Tipped Dissecting Forceps Overall Length 11" working Length	1				
25	Mobile C-Arm	1				
	Make >>					
	Model >>					
	Sole Agent In Pakistan>>					
	Surgical C-arm to be used for Cardiology, Orthopedic, Spine, Abdominal, Thorax, and for interventional procedures.					
	High Frequency, 40 kHz					
	4 kW or more out put					
	Unit should have Excellence in image quality					
	Image archiving and communication solutions.					
	Orbital rotation range 130° or more					
	Manual brakes					
	Compact CCD camera					
	9 inches triple field Image Intensifier					
	2 x 19" or more LCD monitors					

	Collimator with motorized and rotating iris					
	Continuous and real time image rotation without X-Ray emission during fluoroscopy and after exposure.					
	Anatomical programs setting.					
	Unit should have Automatic fluoroscopy optimization on three x-ray dose levels, low, standard & boosted.					
	<u>X-Ray Generator</u>					
	High frequency 40KHz					
	Output power 4 kW or more					
	kVP range: 40-120kVp					
	Fluroscopy (mA) 0.1-5mA or more					
	Radiography mA 20-100mA					
	<u>X-Ray Tube:</u>					
	Rotating anode X-ray tube					
	Two focal spots: small 0.3 mm or more, large 0.6 mm or more					
	Anode heat capacity: 200KHU or more					
	Target angle 10 ° or better					
	<u>C-Arm</u>					
	C-Arm SID : 100 cm or better					
	Horizontal travel 200mm or more					
	Vertical travel 450mm or more					
	Swing : +/-12° or better					
	C-Arm rotating +/- 200° or better					
	<u>Collimator</u>					
	Motorized and rotating iris. Automatic aperture to suit Image Intensifier field.					
	<u>Image Processing</u>					
	Digital video memory 1 Live + 110 images memory or more.					
	LIH (Last Image Hold)					
	Edge enhancement, noise reduction filter					
	DICOM to PACS					
	DICOM store					
	DICOM CD ROM/DVD					
	DICOM cine and USB.					
	Flash USB or external USB hard disk, LCD display image control					
	<u>Image Intensifier</u>					
	9" Image Intensifier					

	Triple Field with central resolution of 50 Lp/cm.					
	Field size 215,160 and 120 mm					
	<u>CCD Camera</u>					
	Full digital, high frequency image data transmission					
	Acquisition rate: 25 images/sec.					
	A/D Converter : 16 bit					
	Resolution : 1024x 1024 or more					
	<u>LCD Monitor</u>					
	Two LCD Monitor's 19" or more					
	Unit should be mounted on Cart					
	Real time & Post processing software					
	Or equivalent					
	Country of origin : USA/UK/EEC/Japan					
26	Endoscope unit for upper & lower GI	1				
	Make >>					
	Model >>					
	Sole Agent In Pakistan>>					
	Endoscope unit for upper & lower GI & Sigmoidoscopies					
	FULL HIGH DEFINATION UPPER AND LOWER AND SIGMOIDOSCOPE VIDEO					
	ENDOSCOPY COMPLET SYSTEM					
	HIGH DEFINITION GASTROINTESTINAL VIDEO SCOPE					
	Waterproof One-touch Connector, High Performance HDTV Compatible, Close Focus, Slim Design, (NBI System Facility Compatible).					
	Field of view: 140°					
	Direction of View Forward Viewing					
	Depth of field 2 to 100 mm					
	Outer diameter: 9.2 mm					
	Working length: 1030mm					
	Total Working length: 1350mm					
	Angulation Range Up 210°, Down 90°, Right 100° Left 100°					
	Inner Diameter 2.8mm					
	Minimum visible distance 3.0mm					

High - Frequency Cauterization Treatment Available					
HIGH DEFINITION COLONO VIDEO SCOPE					
Waterproof One-touch Connector, High Performance HDTV Compatible, Close Focus, Water Jet, NBI System Facility Compatible)					
VARAIBLE STIFFNESS					
Field of view: 140°					
Direction of View Forward Viewing					
Depth of field 2 to 100 mm					
Outer diameter: 12.8 mm					
Working length: 1680mm					
Total Working length: 2005mm					
Angulation Range Up 180°, Down 180°, Right 160° Left 160°					
Inner Diameter 3.7mm					
Minimum visible distance 5.0mm					
High - Frequency Cauterization Treatment					
HIGH DEFINITION SIGMOIDOSCOPE VIDEO SCOPE					
Waterproof One-touch Connector, High Performance HDTV Compatible, Close Focus, Water Jet, NBI System Facility Compatible)					
VARAIBLE STIFFNESS					
Field of view: 140°					
Direction of View Forward Viewing					
Depth of field 2 to 100 mm					
Outer diameter: 12.8 mm					
Working length: 13500mm					
Total Working length: 1655mm					
Angulation Range Up 180°, Down 180°, Right 160° Left 160°					
Inner Diameter 3.7mm					
Minimum visible distance 5.0mm					
High - Frequency Cauterization Treatment					
VIDEO SCOPE SYSTEM					
Combination of HDTV and NBI with an LED Light Source					
Power Supply Voltage 100-240 V AC					
Frequency 50 / 60 Hz,					
Rated input 200VA					
Ratio 16:9 and 16:10 Output					

	Analog HDTV signal output Either RGB (1080/60I: NTSC)/(1080/50I: PAL) or YPbPr (1080/60I: NTSC)/(1080/50I: PAL) output selectable					
	Analog SDTV signal output VBS composite (480/60I: NTSC)/(576/50I: PAL), Y/C (480/60I: NTSC)/(576/50I: PAL), and RGB(480/60I: NTSC)/(576/50I: PAL); simultaneous outputs					
	Digital signal output HD-SDI (SMTPE 292M), SD-SDI (SMPTE 259M), DV, and DVI (WUXGA, 1080p or SXGA).					
	White balance adjustment					
	Standard color chart output					
	Color tone adjustment					
	Automatic gain control (AGC)					
	Contrast : N (Normal): Normal image , H (High), L (Low) , Noise reduction , Iris					
	Image enhancement setting					
	Switching of enhancement modes					
	Image size selection , Freeze , Pre-Freeze , NBI Observation , Reset to defaults , Remote control					
	Patient data record.					
	Portable memory and internal buffer					
	DVR , Video printer , Image filing system					
	Displaying the image formation					
	Patient data registration					
	Recording format : FF, JPEG (1/5), JPEG 1/10					
	Number of recording: TIFF: approx. 227 images, JPEG (1/5): approx. 1024 images , images JPEG (1/10): approx. 2048 images					
	Flushing Pump for Colono Videoscoe					
	Maintenance Unit with leakage Tester for endoscopy					
	Suction Machine for Endoscope					
	Video Trolley with anticaster and keyboard drawer					
	Monitor High Definition LCD Medical Grade Colour Monitor 21" HDTV Compatible					
	OR Equivalent					
	Country of origin : USA/UK/EEC/Japan					
27	Arthroscope	1				
	Make >>					

	Model >>					
	Sole Agent In Pakistan>>					
i	Multiview Multidirectional Telescope, diameter 4 mm, length 18 cm, autoclavable, variable direction of view from 15° - 90°, adjustment knob for selecting the desired direction of view, fiber optic light transmission incorporated.	1				
		1				
ii	Arthroscope Sheath , with snap-in coupling mechanism, diameter 6 mm, working length 13.5 cm, distal tapered, with irrigation holes, two stopcocks, rotatable, for use with Telescope and Obturator with cannulated handle or Obturators.	1				
iii	Obturator, blunt, for use with Arthroscope Sheaths	1				
iv	Punch, through-cutting, cutting width 3.4 mm, straight jaws, sheath diameter 3 mm, straight, handle with cleaning connector, working length 12 cm	1				
		1				
v	Punch, through-cutting, cutting width 3.4 mm, curved jaws, 15° upwards, sheath diameter 3 mm, straight, handle with cleaning connector, working length 12 cm	1				
vi	Punch, through-cutting, cross-toothed, cutting width 3.4 mm, straight jaws, sheath diameter 3 mm, 30° curved to left, handle with cleaning connector, working length 12 cm	1				
vii	Punch, through-cutting, cross-toothed, cutting width 3.4 mm, straight jaws, sheath diameter 3 mm, 30° curved to right, handle with cleaning connector, working length 12 cm	1				
viii	Punch, through-cutting, cross-toothed, cutting width 3.4 mm, curved jaws, 90° left, sheath diameter 3 mm, straight, handle with cleaning connector, working length 12 cm	1				
ix	Punch, through-cutting, cross-toothed, cutting width 3.4 mm, curved jaws, 90° right, sheath diameter 3 mm, straight, handle with cleaning connector, working length 12 cm	1				
x	Alligator Grasping Forceps, straight jaws, serrated, sheath diameter 3 mm, straight, handle with cleaning connector and ratchet, working length 12 cm	1				
xi	Punch, through-cutting, cutting width 0.5 mm, straight jaws, sheath diameter 3 mm, straight, handle with cleaning connector, working length 12 cm					

xii	Oval Upbiter, through-cutting, cross-toothed, cutting width 4.1 mm, jaws curved, 15° upwards, sheath diameter 3 mm, straight, handle with cleaning connector, working length 12 cm					
xiii	Punch, through-cutting, cross-toothed, cutting width 2.7 mm, jaws curved, 15° upwards, sheath diameter 3 mm, straight, handle with cleaning connector, working length 12 cm					
xiv	Punch, through-cutting, cross-toothed, cutting width 1.5 mm, jaws curved, 15° upwards, sheath diameter 3 mm, straight, handle with cleaning connector, working length 12 cm					
xv	Probe graduated, length of hook 4 mm, diameter 1.5 mm, working length 12 cm					
xvi	Stainless steel tray for sterilization, storage and transport of up to 12 SilCut- or Rhinoforce forceps. Tray with lid, latches and handles. Removable rack with double silicone holders for max.12 instruments.					
xvii	Arthroscopic Shaver System with color display, touch screen, handpiece & footpedal operatable, two motor outputs, with integrated module, power supply 100 - 120/230 - 240 VAC, 50/60 Hz .					
	Consisting of:					
	Arthroscopic Shaver Unit					
	Connecting Cable, length 100 cm					
	Mains Cord					
	Instruction Manual					
xviii	Shaver Handpiece, up to 8000 rpm, for use with all sizes of blades /burrs 2.5 - 6.5 mm.					
		1				
xix	Two-Pedal Footswitch, one-stage, for use with console.					
xx	Arthroscopic Suction & Irrigation Set, Dual pump that can regulate pressure inside joint.					
	Consisting of:					
	Arthroscopic Suction & Irrigation Unit					
	Power supply 100 - 240 VAC, 50/60 Hz					
	Pressure range 0-200 mmHg.					
	Connecting Cable					

	Connecting Cable, length 100 cm					
	Four-Pedal Footswitch					
	Tubing Set Irrigation, sterile, for single use, package of 3					
	Tubing Set Suction, sterile, for single use, package of 3					
xxi	Tubing Set IRRIGATION, with two puncture needles, for single use, sterile, package of 10					
xxii	Single-use SUCTION tubing set with two suction tubes					
xxiii	Tendon Stripper graduated, diameter 7 mm, length 30 cm					
xxiv	Open Tendon Stripper graduated, diameter 7.5 mm, length 30 cm					
xxv	Tendon Hook					
xxvi	Tendon Board,	1				
	Consisting of:					
	1 x Tendon Board					
	1 x retainer					
	1 x Working Board, white	1				
	1 x Measuring Cradle					
	1 x Tension Cradle	1				
	2 x Clamp					
xxvi	Tendon Thickness Tester for determination of tendon thickness size 6 - 10.5 mm at intervals of 0.5 mm	1				
xxvii	Undercut Drill, cannulated, diameter 4.5 mm, for use with Drilling Wire and Larding Wire	1				
xxviii	Undercut Drill, cannulated, diameter 7 mm, for use with Drilling Wire and Larding Wire	1				
xxix	Undercut Drill, cannulated, diameter 8 mm, for use with Drilling Wire and Larding Wire	1				

xxx	Undercut Drill, cannulated, diameter 9 mm, for use with Drilling Wire and Larding Wire	1				
xxxi	Undercut Drill, cannulated, diameter 10 mm, for use with Drilling Wire and Larding Wire	1				
xxxii	Undercut Drill, cannulated, diameter 11 mm, for use with Drilling Wire and Larding Wire	1				
xxxiii	Drill cannulated, diameter 7 mm for use with Drilling Wire and Larding Wire	1				
xxxiv	Drill cannulated, diameter 8 mm for use with Drilling Wire and Larding Wire	1				
xxxv	Drill cannulated, diameter 9 mm for use with Drilling Wire and Larding Wire	1				
xxxvi	Drill cannulated, diameter 10 mm for use with Handle and Drilling Wires	1				
xxxvii	Length Gauge for cruciate ligament reconstruction, graduated, working length 23 cm	1				
xxxviii	Drilling Wire, spiral shape, with eyelet, diameter 2.4 mm, length 38 cm, unsterile, for single use, package of 6, for use with Undercut Drills	1				
xxxix	Larding Wire, pyramidal tip, diameter 2.4 mm, length 32 cm, unsterile, for single use, package of 10, for use with Undercut Drills	1				
xxxx	Tibial Target Guide for ACL reconstruction, tunnel angle between 40° and 55°, adjustable in 5 increments	1				
xxxxi	Nitinol Guide Wire, diameter 1.1 mm, length 38.5 cm, unsterile, for single use, package of 6,	1				
xxxxii	Femoral target guide handle with 3 attachment 6,7 & 8mm offset	1				
xxxxiii	Stainless steel tray for sterilization, storage and transport of up to 12 Punches or forceps. Tray with lid, latches and handles. Removable rack with double silicone holders for max. 12 instruments.	1				
xxxxiv	FULL HD Camera Control Unit	1				

	-Camera control unit with special image enhancement modes					
	- Resolution 1920 x 1080 pixels progressive scan					
	-Integrated patient data, image and video recording system					
	- Power supply 100-240 VAC 50 Hz					
	Special Feature Required:					
	- Automatic White Balance					
	- Powerful video signal processing					
	- Image enhancement modes upto 5 or better with suitable camera heads					
	- Picture in picture mode control via camera head button					
	- Control of peripheral i.e. light source, recording system parameter via camera head button					
	- Still image capturing in full HD quality (JPEG) format via camera head buttons					
	- Video capturing in full HD quality (MPEG 4 format) via camera head buttons					
	- Grid & pointer mode for teaching and training purpose					
	- 20 individual preset or better					
	- 20 patient data backup or better					
	- Should have compatibility with upgrades like 3-Chip Camera heads, flexible scopes, 3-D, 4K or better or equivalent					
	Technical Features:					
	- DVI output (2x) or better or equivalent					
	- 3G-SDI output (1x) or better or equivalent					
	- USB connections (4x) pr better or equivalent					
	Consisting of:					
	- DVI Cable					
	- Power Cord					
	- Silicon Keyboard with touchpad					
	- USB flash drive 32 GB or better					
xxxxv	Digital CMOS camera head for full HD with 2x digital zoom and freely programmable camera head buttons.	1				
	Technical data:					
	-Image sensor: 1/3" CMOS-Chip.					
	-Pixels: 1920 (h) x 1080 (v) pixels per chip.					
	- Sensor type: CMOS					
	- Aspect Ratio: 16:9					

	- Progressive scan (full frame) for Integrated zoom lens					
	- f = 16mm or better.					
	- Display of 50 or 60 frames per second. Lens:					
	- Minimum light sensitivity: 1.4 Lux (f = 1.4 mm).					
	- Control buttons: 3 (2 of them freely programmable).					
	Special features:					
	- Chip Technology for brilliant image					
	- The CCD sensing chip.					
	-Suitable light sources are controllable by camera head buttons via communication bus.					
	-Suitable insufflators are controllable by camera head buttons via communication bus.					
	Suitable camera control units can store FULL HD images and FULL HD video clips to USB mass storage devices in conjunction with the camera head.					
	Suitable camera control units can print FULL HD images in conjunction with the camerahead and a compatible USB printer.					
	The camera head is rated CF-Defibrillation according to EN 60601 allowing cardiac surgery.					
xxxxvi	LED 150 Watt Light source High-Performance LED Light with one light outlet, power supply 100 - 240 VAC, 50/60 Hz	1				
	Including:					
	Mains cord					
xxxxvii	Fiber Optic Light Cable, with straight connector, diameter 3.5 mm, length 180 cm	1				
xxxxviii	26" FULL HD Monitor,	1				
	color systems PAL/NTSC,					
	max. screen resolution 1920 x 1080,					
	image format 16:9,					
	video inputs: DVI, 3G-SDI, VGA, S-Video, Composite,					
	video outputs: DVI, 3G-SDI, Composite,					
	power supply 100 - 240 VAC, 50/60 Hz,					
	5 V DC output (1 A), wall-mounted with VESA 100 adaption,					
	Including:					
	External 24 VDC Power Supply Mains Cord					

xxxxix	Equipment Cart Rides On 4 Antistatic dual castor wheels	1				
	Or equivalent.					
	Country of origin : USA/UK/EEC/Japan					
28	Digital 300mA Mobile X-ray Machine	1				
	Make >>					
	Model >>					
	Sole Agent In Pakistan>>					
	300mA Mobile DR System					
	High frequency x-ray generator with a flat panel detector should be incorporated in a Mobile trolley for x-ray procedures in room to room examination.					
	X-RAY GENERATOR:					
	High Frequency x-ray generator, 320mA/125kV.					
	Microprocessor Controlled					
	Auto diagnostic System					
	Overload protection					
	Output Power 20 kW or better					
	KVp Range from 40 KVp to 125 KVp or better					
	mA range from 10 to 320 mA: 10, 12.5, 16, 20, 25, 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 320mA or better.					
	Automatic selection of mAs					
	mAs Range 0.1 to 500 mAs.					
	Time range from 1 ms. to 10 sec.					
	17~19" Touch screen control Panel					
	Generator Console should be integrated with the digital System					
	Two steps Hand switch					
	Audible and light indication for x-ray exposure					
	APR 450 or more.					
	Auto Diagnostic System with error code.					
	Automatic Line Power Detection System					
	X-RAY TUBE					
	Maximum Tension, 150 KVp.					
	Focus sizes: Small focus 0.7 mm. Large focus 1.3 mm.					

Anode heat capacity 300 KHU					
Anode degree target angle, 16°					
Manual collimator with 6 pair of leaves					
Electronic timer and meter					
LED Field light lamp					
High Tension Cables 75 kVp.					
Tube stand column mobile unit:					
Motorized Unit, 4 km/h Speed.					
Pressure Sensitive Moving System					
Forward and Backward movement					
Battery Charge Indicators					
Anti-Collision System. Frontal and Lateral					
Touch control panel with sensitive push button.					
Emergency Stop push button					
Counterbalanced tube arm.					
Electromagnetic breaks					
Maximum Focal Distance 202 cm to the floor					
Minimum Focal Distance 55 cm to the floor.					
FLAT PANEL DETECTOR					
Active area: 14" x 17" (35 x 43 cm)					
Type: Caesium Iodid (CsI)					
Active area: 13.8 x 16.8 inch (35.0 x 42,6 cm)					
Pixel matrix: 2,448 (H) x 2,984 (V)					
Pixel pitch: 143 m P					
DQE: > 70%					
A/D conversion: 16 bit					
Weight: Sensor unit: approx. not more than 3 kg					
Work Station And Software					
Integrated Workstation on Mobile Trolley					
Computer for Mobile Application					
Medical Grade display					
CPU: Intel Core2Duo T7500 - 2.2 GHz					
Operating System: Window XP Pro o Memory: 2GB RAM, Dual Channel,					
Integrated Graphics Media Accelerator					
Network: 2 Gigabit-Ethernet					
Hard disk drive: 1 TB					

	Medical Grade LCD 17"					
	Professional acquisition software for x-ray images:					
	Professional acquisition software for X-ray images from flat panel systems (DR).					
	Patient registration , Generator Synchronization , Compression of dynamic Range					
	Edge Enchantment , Window and level adjustment, Automatic and Manual , Image rotation , Image Inversion , Text annotations , Measurements , Post-processing marks					
	Electronic collimation, Automatic and Manual , Zoom x3 , Noise reduction, Multi-image viewing on monitor, and printing composition , Automatic and Manual image storage and printing , Image processing , Image management (PACS, HIS/RIS etc...)					
	DICOM Communication, full DICOM 3.0 Compatibility					
	DICOM worklist from HIS/RIS Store Images through PACS network system					
	DICOM image print					
	DICOM MPPS					
	Modern graphical user interface.					
	Touch screen operation					
	Capture of patient data via DICOM worklist.					
	Fully integrated radiographic positioning guide.					
	Exam Specific Algorithms image processing					
	Automatic image optimization					
	Instantaneous acquisition of image & quickly image processing					
	Advanced noise reduction technology					
	Optimized image calibration technology & minimized radiation dose.					
	Or equivalent					
	Country of origin : USA/UK/Japan/EEC					
29	Color Doppler with Echocardiography unit	1				
	Make >>					
	Model >>					
	Sole Agent In Pakistan>>					
	HARDWARE					
	21 inch or better LED/LCD screen					
	12 inch or better super responsive touch screen					
	Touch screen angle should be adjustable					
	Adjustable height of control panel.					

4 active transducer ports or more (excluding the pencil probe port)					
500GB Hard disk or more					
Multiple USB ports					
IMAGING FEATURES AS STANDARD					
Contrast Imaging.					
Advanced Compression Elastography Imaging for Linear, Convex and TVS Probes.					
Digital front-end technology.					
Multi-beam forming technology.					
C-Field beam for continuous dynamic focus for improved imaging.					
High pulse repetition frequency technology.					
Stress Echo					
TEE Probe compatibility (in-built hardware and software)					
Tissue Doppler Imaging					
Color M Mode					
Anatomical M Mode					
CW mode (Velocity Range: 0 – 60m/s or better).					
PW mode (Velocity Range: 0 – 18m/s or better)					
Auto Calculation: Auto EF, Auto IMT, Live Spectral Auto Trace, Auto NT, Auto follicle Calculation.					
Advanced speckle reduction technology					
Spatial Compound imaging.					
Frequency Compound imaging.					
Pulse Inversion Harmonic Imaging mode.					
Duplex and Triplex mode					
TECHNICAL PARAMETERS AS STANDARD					
Dynamic Range: 40dB to 260dB or better					
Gain Control: Separate knobs for Gain control of B-Mode, M-Mode, Color-Mode, PW /CW-Mode.					
TGC: 8 bands or more					
Lateral Gain Compensation: 2 bands or more					
Real Time Image Zoom: 2x to 8x or better					
Physical Channels: 128 Nos. or more					
Digital Channels: 95,000 Channels or more					
Sampling Width: 1mm to 19mm or better					
B Mode Frame Rate: 1500 fps or more					
Color Mode Frame Rate: 200 fps or better					

	Cine Loop Playback: Up to 1000 frames.					
	MEASUREMENT PACKAGES AS STANDARD					
	Adults cardiac package					
	Pediatrics cardiac package					
	PROBES AS STANDARD					
	Adults Cardiac Probe: 2-5MHz or better					
	Elements: 80 or more					
	Pediatrics Cardiac Probe 2-7 MHz or better					
	Elements: 64 or more					
	OR Equivalent					
	Country of origin : USA/UK/EEC/Japan					
	Manufacturers from other countries will be accepted having FDA 510k and CE certifications					
30	Ultrasound Machine with Convex, Linear and Endocavity probe	1				
	Make >>					
	Model >>					
	Sole Agent In Pakistan>>					
	17 inch or more Widescreen High-Resolution anti-flickering LED can be vertically or horizontally swiveled.					
	8" Touch screen or better for machine control.					
	Four active probe sockets or more.					
	S-Video connection.					
	Multiple USB ports for data transfer.					
	500GB Hard disk.					
	DICOM 3.0 compatibility.					
	Review software for stored images and information of patients for reporting, printing and analyzing for later.					
	ECG Module.					
	IMAGING TECHNIQUES AS STANDARD					
	Tissue Harmonic Image Mode.					
	Pulse Inversion Tissue harmonic imaging Mode.					
	High Pulse Repetition Frequency technology					
	Multi-beam processing technology					
	Frequency and Spatial compound imaging					

	Color Mode and B-Mode panoramic imaging					
	Trapezoidal imaging for Linear probe					
	Advanced speckle and artifacts reduction technology.					
	Auto IMT calculation, Auto EF, Auto Trace for PW Spectrum calculations.					
	Single button image optimization for B-Mode, Color Mode and PW Mode					
	Advanced Compression Elastograph					
	Contrast Imaging.					
	Advanced Doppler detection technology for Low blood flow detection in small vessels.					
	Stress Echo function (Probe Dependent).					
	Tissue Doppler Imaging.					
	M Mode, Color M Mode and Anatomical M Mode (Multiple sample lines)					
	Needle enhancement function for enhanced needle visualization for Biopsies and Interventional cases.					
	Dual Live Mode.					
	Biopsy guidance on image with multiple angle selection.					
	IMAGING MODES AND PARAMETERS AS STANDARD					
	B/2B/4B Mode.					
	M Mode.					
	Anatomic M Mode.					
	Color M Mode.					
	Color Flow Mode.					
	Power Doppler Mode.					
	Directional Power Doppler Mode.					
	Pulsed Wave Doppler.					
	Continuous Wave Doppler.					
	Real Time Panoramic Imaging (B mode and Color mode).					
	Duplex and Triplex Mode.					
	Dual Split Mode.					
	Dual Live Mode.					
	MEASUREMENT PACKAGE AS STANDARD					
	Basic B mode measurement.					
	Basic M mode measurement.					
	Basic spectral Doppler mode measurement.					
	Color flow volume measurement.					
	Obstetrics measurement package.					
	Breast measurement package.					

	Gynecology measurement package.					
	Abdomen measurement package.					
	Vascular measurement package.					
	Urology measurement package.					
	Small parts measurement package.					
	Patient Data Management System (in-built).					
	TECHNICAL FEATURES AS STANDARD					
	Dynamic Range: 40dB – 260dB or better					
	Physical Channels: 64 or more					
	Digital Channels: 35,000 or more					
	Frame Rate in B-Mode: 800 fps or more					
	Image Zoom: 2x to 8x or better.					
	TRANSDUCERS AS STANDARD					
	Convex Probe (2.0 – 6.0MHz or better).					
	Elements: 128 or more					
	Linear Probe. (5.0 – 15.0MHz or better).					
	Elements: 128 or more					
	TVS Probe (4.0 – 13.0MHz or better).					
	Elements: 128 or more					
	OR Equivalent					
	Country of origin : USA/UK/EEC/Japan					
	Manufacturers from other countries will be accepted having FDA 510k and CE certifications					
31	X-ray Viewing box (4 x 1)(Local)	20				
	Make >>					
	Model >>					

TENDER NO.1-9/2017-18-AD(M)/JPMC
GOVERNMENT OF SINDH
JINNAH POSTGRADUATE MEDICAL CENTER
KARACHI 75510

TENDER FOR THE PURCHASE OF MACHINERY/ EQUIPMENT THROUGH (ADP) SCHEME
"PROVISION OF EQUIPMENT FOR SURGICAL COMPLEX AT JPMC, KARACHI".
DUE ON 24-02-2018

Item No.	NAME OF ITEM (SPECIFICATION)	Req. Qty.	CIF PRICE		DDP PRICE	
Column 1	Column – 2	Column – 3	Unit Price	Total Price	Unit Price	Total Price
	C S S D					
1	Steam Sterilizer 400liter	2				
	Make >>					
	Model >>					
	Sole Agent In Pakistan>>					
1.1	Touch Screen 6 inch or more display					
1.2	Chamber Dimensions: 60 x 60 x 110 cm or equivalent					
1.3	Chamber Volume: 400 liter or more					
1.4	Vacume system with vaccum pump.					
1.5	Built-in 40kW or less steam generator					
1.6	Chamber and door should be made of stain less steel 316L					
1.7	Chamber should be covered by jacket made of stainless steel 304L					
1.8	Insulation cover and base frame should made of stainless steel 304L					
1.9	Single automatic locking hinged door with double safety locking system.					
1.1	Temperature range 110 °C - 136 °C or equivalent					
1.11	10 programs and 20 programmable cycles					
1.12	Ethernet connection port for PC access via network					
1.13	USB port for data downloading.					
1.14	Built-in printer for full record of cycle data					
1.15	Transfer carriage and rail cart.					
1.16	Air Compressor with automatic drain, air bag					
1.17	Inbuilt water softner					
1.18	Voltage: 380V / 400V 3Ph with Neutral					
1.19	Or equivalent					

1.2	Country of origin : USA/UK/EEC/Japan					
2	Trolley	20				
	Make >>					
	Model >>					
	Sole Agent In Pakistan>>					
2.1	Manual transfer trolley					
2.2	Height 80cm or more					
2.3	Made of stainless steel					
2.4	Or equivalent					
3	Washer disinfecter 200liter single door	2				
	Make >>					
	Model >>					
	Sole Agent In Pakistan>>					
3.1	Floor standing washer disinfecter with hot air dryer.					
3.2	Capacity 200 liters or more					
3.3	Front loading with single or double door.					
3.4	Capacity of 8 DIN basket or more					
3.5	Electrical heating					
3.6	Integrated Printer					
3.7	Adjustable washing temperature up to 93°C					
3.8	Circulation pumps for rapid flow rate and effective spray pressure.					
3.9	Steam condenser to prevent heat from entering the washing area.					
3.1	RS-232 printer connection.					
3.11	Chemical dosing pump to adjust detergent consumption for each cycle.					
3.12	HEPA air filter					
3.13	Connection facility for cold and warm water.					
3.14	Electrical connection 3 Phase 400V or more.					
3.15	Total power 9kW or less					
3.16	Complete with baskets and transfer trolley.					
3.17	Or equivalent					
3.18	Country of origin : USA/UK/EEC/Japan					

4	RO Plant 5000GPD	2				
	Make >>					
	Model >>					
	Sole Agent In Pakistan>>					
4.1	3 nos. 4" x 40" TFC HF1 membrane for maximum rejection of impurities and high flow.					
4.2	1.5HP multistage pump and motor, 220V , 50Hz single phase for continuous high pressure.					
4.3	Aluminum white power coated, croissant resistant and light weight frame.					
4.4	4.5 x 20" 10micron carbon block to remove chlorine and adore.					
4.5	1 no. 4.5" x 20" big white 1 micron sediment filter to remove sediment and protect the system down to 1 micron.					
4.6	3 nos. filter hosing.					
4.7	Pressure gauge for monitoring the system's operating pressure.					
4.8	Low pressure switch.					
4.9	Low pressure switch safety device to protect the pump from running dry when there is insufficient feed water.					
4.1	Manual flush value.					
4.11	System complete with computer controller, flow meter, TDS meter.					
4.12	Capacity 5000GPD					
4.13	Minimum feed pressure 35psi or better					
4.14	Salt rejection 96% or better					
4.15	Maximum TDS 2000ppm or better.					
4.16	PH range 11-mar or better					
4.17	Or equivalent					
4.18	Country of origin : USA/UK/EEC/Japan					
5	Washing sinks with high pressure rinser	2				
	Make >>					
	Model >>					
	Sole Agent In Pakistan>>					

5.1	Should be made of Stainless steel					
5.2	With two basin with drain					
5.3	Size approx. 1.5 x 2 x 1.5'					
5.4	Should complete with spray gun made of stainless steel.					
5.5	Suitable for water and compressed air.					
5.6	Respective connection tubes to the power supply of water and air under the tub and at floor.					
5.7	Handle should be thermally insulated.					
5.8	Connecting hose 2 m or more.					
5.9	Or equivalent					
6	Auto sealer	2				
	Make >>					
	Model >>					
	Sole Agent In Pakistan>>					
6.1	Temperature control electronic device for sealing the sterile packing.					
6.2	Seam width 12mm or more.					
6.3	Sealing temperature 0-200° or better.					
6.4	Power supply 230V/50Hz					
6.5	Or equivalent					
6.6	Country of origin : USA/UK/EEC/Japan					
7	ETO Sterilizer/Low temp plasma sterilizer	1				
	Make >>					
	Model >>					
	Sole Agent In Pakistan>>					
7.1	Chamber volume:80 liters or more					
7.2	Temperature range up to 50°C or more.					
7.3	User friendly control system with touch screen display					
7.4	Built-in printer					

7.5	PC connection port for direct access to PC					
7.6	Aluminum chamber and door.					
7.7	Manual single door					
7.8	Baskets 2 nos. or more.					
7.9	Stainless steel piping.					
7.1	Working principle : H ₂ O ₂ as sterilizing agent at temperature of 50°C.					
7.11	Electricity: 230V; 50/60Hz					
7.12	Chamber and door thickness should not be less than 6mm.					
7.13	Chamber heating through electric heaters					
7.14	Microbiological air filter to filter all air entering the sterilizers chamber.					
7.15	Filter particle size should be 0.2 µm or better.					
7.16	Loading equipment : 2 nos. pullout trays.					
7.17	Alarms : temperature and pressure sensor failure, power failure, door not					
7.18	Complete with :					
7.19	H ₂ O ₂ sterilizing agent , bottle 150ml,					
7.2	Molecular sieve refill for odor filter					
7.21	Oil Filter, Replacement element - Vacuum pump					
7.22	Filter for Oil seperator - Vacuum pump					
7.23	Filter, Aeration 500 (0.2 µm)					
7.24	Filter H ₂ O ₂ , vaporizer					
7.25	Plunger for Vaporizer Valve					
7.26	H ₂ O ₂ Concentration, Measurement kit					
7.27	Oil for Vacuum Pump, 1 liter bottle					
7.28	Vaporizer entry Valve, 1.0,					
7.29	Capillary Coil for Vaporizer Valve					
7.3	Momentary Pushbutton Switch					
7.31	Burner Electrode (pair)					
7.32	Geobacillus stearothermophilus, 100pcs/pack					
7.33	Multi-variable Chemical Indicator, paper strips printed with indicator					
7.34	Indicator Tape for VH ₂ O ₂ sterilization process					
7.35	Dual Incubator for Biological Indicators					
7.36	Or equivalent					

7.37	Country of origin : USA/UK/EEC/Japan					
8	Drying cabinets	2				
	Make >>					
	Model >>					
	Sole Agent In Pakistan>>					
8.1	Floor standing drying cabinets with four shelves					
8.2	Size: 150x88x1245cm or equivalent					
8.3	Power: 2.1kW, 220V/50Hz					
8.4	Temperature: 0-80°C					
8.5	Or equivalent					
8.6	Country of origin : USA/UK/EEC/Japan					
9	Working table	2				
	Make >>					
	Model >>					
	Sole Agent In Pakistan>>					
9.1	Should be made of stainless steel					
9.2	Approx. size: 180x80x90cm					
9.3	With 2-3 drawers.					
10	Covered rack	4				
	Make >>					
	Model >>					
	Sole Agent In Pakistan>>					
10.1	Support for baskets and accessories					
10.2	wire basket					

11	Water treatment plant	1				
	Make >>					
	Model >>					
	Sole Agent In Pakistan>>					
11.1	Microprocessor control system					
11.2	Compact high-purity water system					
11.3	Tank capacity 80-100L					
11.4	pressure pump of 3 l/min					
11.5	pH range: 4-11					
11.6	With LCD display.					
11.7	Or equivalent					
11.8	Country of origin : USA/UK/EEC/Japan					
12	Dressing drums (Various sizes)	100				
	Make >>					
	Model >>					
	Sole Agent In Pakistan>>					
12.1	Different size					
12.2	Made of SSt.					
12.3	Or equivalent					
12.4	Country of origin : USA/UK/EEC/Japan					
	MAINTENANCE WARRANTY					
	Three years comprehensive warranty.					
	INSTALLATION & COMMISSIONING					
	The bidder will be responsible for supply, installation, commissioning and Maintenance of complete CSSD Equipment including piping, connection, fittings, drains etc as per requirement of installation.					

	TRUNKEY BASIS PROJECT					
	Project is on Trunkey basis hence bidders must submit their bid for complete package of required items					

Detail of Laundry (Machinery & Equipment) Required for Surgical Complex at JPMC, Karachi.

S.No.	Name of Item	Qty	CIF PRICE		DDP PRICE	
			Unit Price	Total Price	Unit Price	Total Price
1.	Washer Extractor <ul style="list-style-type: none"> ▪ 50 Kg or more washing Capacity ▪ Medical Barrier Washer Extractor ▪ Electric Operated ▪ Stainless steel drum ▪ Easy access to all parts ▪ Frequency Controlled Motor ▪ With Soap dispenser with 4 or more removable compartments ▪ Microprocessor controlled ▪ Cold and hot Water inlet ▪ Detergent Powder & liquid compatible ▪ Large opening Door for Loading & Unloading 	02				
2.	Washer <ul style="list-style-type: none"> ▪ 25 Kg or more Washer & Extractor ▪ Electric Operated ▪ Stainless steel top panel ▪ Stainless steel drum and tub ▪ Microprocessor ▪ Soap dispenser ▪ Easy access to all vital parts from the front ▪ Large door opening for easy loading & unloading 	01				
3.	Tumble Dryer <ul style="list-style-type: none"> ▪ 50Kg or more Drying capacity ▪ Electric Operated ▪ Large door opening 	02				
4.	Ironer (Flat Work Type) <ul style="list-style-type: none"> ▪ Electric Operated ▪ Cylinder heated ▪ Ironing capacity : 90kG or more ▪ Drum diameter : 500mm or more ▪ Working length : 2500mm or more ▪ Large surface contact with linen ▪ Emergency button for safety ▪ Automatic cool down 	01				
5.	Laundry Press Air Operated <ul style="list-style-type: none"> ▪ Pneumatic Press for Laundry ▪ High grade nickel plated polished head. ▪ with pad and cover ▪ Water spray gun. ▪ Adjustable head release timer 	01				

6.	Steam Generator <ul style="list-style-type: none"> ▪ Gas Operated ▪ 1000 Kg/hour steam production ▪ Structure: vertical fire tube steam boiler ▪ Water pipe penetrating flow furnace type, vertical three returns. ▪ Top located Burner, ▪ Top burner-burning ▪ Working pressure : 7-10 bar ▪ Water feeding inlet : $\frac{1}{2}$ ~ $\frac{1}{4}$ " ▪ Boiler drain : $\frac{3}{4}$ " ▪ Tank for condensate recovery ▪ Feet pump motor : 2h/p or more ▪ Steam capacity : 800-100 	01				
7.	Steam Generator <ul style="list-style-type: none"> ▪ Electric Operated ▪ 300 Kg/hour steam production ▪ Structure: vertical fire tube steam boiler ▪ Water pipe penetrating flow furnace type, vertical three returns. ▪ Top located Burner ▪ Top burner-burning 	01				
8.	RO Plant <ul style="list-style-type: none"> ▪ Operating pressure: 100~180psi ▪ Salt rejection 95% ▪ Recovery rate : 40~50% ▪ Inlet water pressure pump to HP:220~240W. ▪ Sand filter , activated carbon filter, water softner filter , UV disinfection system, reverse osmosis water purification system. ▪ Complete RO System ▪ Air Compressor : ▪ Tank capacity : 100L or more ▪ Operating pressure : 7-8bar ▪ Complete with pressure gauge and safety value ▪ Thermal over load protector 	01				
9.	Ironer board with iron	02				
10.	Dry linen trolley 15kg , S.S	02				
11.	Wet linen trolley 15kg , S.S	02				
12.	Sewing machine	01				
13.	Feed water tank and water storage tank	01				

	Other terms and conditions
	Site planning The Contracting firm shall visit the site before submission of tender and ensure that cost of all necessary Laundry machines' placement, leveling and fixing, Piping works, steam generator, Steam generator to Steam Header, Exhaust, water softener, water to Feed water tank including fitting, value, drain along with electrical boards/cables/earthling etc. needed to install and commissioning the complete system is included in the tender cost.
	For technical bid each vendor is requested to fill up the above mentioned Performa with the desired information in the last column, on the same MS word format in yes or no form with verifiable references (along with proper pagination, paragraph & line description)
	Vendor must also enclose a soft copy on CD/USB in addition to hard copy for technical evaluation committee.
	Only OEM Dealers in Pakistan or manufacturer are eligible to participate.
	Pricing of optional configuration and post warranty terms should be quoted separately.
	Pricing of optional configuration with accessories and services should be quoted separately.
	Technical evaluation will be based on the standard configuration with accessories and offered services of the whole project.
	Commercial evaluation will be based on the standard configuration with accessories and offered services of the project.
	The bidder must indicate the number of similar Projects installed within Pakistan especially in health sector and Law enforcement agencies etc. and letter of satisfaction from the end user.
	Quality Safety Standards:
	<ul style="list-style-type: none"> Country of Manufacture and origin should be USA/UK/Europe/Japan and equipment approval of their respective quality standards is mandatory.