

**JODHPUR** 

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Dated: 11<sup>th</sup> November, 2016

# **CORRIGENDUM**

### **Rate Contract**

### for

### **Consumables for Cardio Thoracic and Vascular Surgery**

Tender No.	:	Admn/RC/07/2016-AIIMS.JDH
NIT Issue Date	:	23 <sup>rd</sup> September, 2016
Last Date of Submission	:	25 <sup>th</sup> October, 2016 at 03:00 PM
Revised Last date of Submission	:	21 <sup>st</sup> November, 2016 at 03:00 PM

Modifications for Rate Contract for Radiology Consumables are as under:

S. No.	Tender	Existing Detail	Modifications
	Ref. No.		
1	9	<ul> <li>Item Name: SWAN GANZ PA CATHETER INTRODUCER KIT SET</li> <li>Specification: <ul> <li>Percutaneous Sheath introducer set should have bonded hemostasis valve &amp; amp; side port along with .035 x 45 cm straight &amp; amp; "J" tip guide wire for introducing 7.5 Fr&amp; amp; 8.0 Fr PA Catheter.</li> <li>It should have sheath diameter of 8.5 F &amp; amp; sheath length of ≈11 cm. It should be made of radiopaque polyurethane &amp; amp; should have a coating of Heparin as well as antimicrobial material (Benzalkonium Chloride) on entire sheath surface.</li> <li>It should come with 1 catheter contamination shield, ≈80 cm in length.</li> <li>It should have one 4-waystopcock, one vessel dilator &amp; amp; four 4x 4gauze pads.One disposable scalpel, # 11 blade &amp; amp; one 18 ga x 2 ½ thin wall needle.</li> </ul> </li> </ul>	<ul> <li>Specifications:</li> <li>Percutaneous Sheath introducer set should have bonded hemostasis valve &amp; amp; side port along with .035 x 45 cm straight &amp; amp; "J" tip guide wire for introducing 7.5 Fr&amp; 8.0 Fr PA Catheter.</li> <li>It should have sheath diameter of 8.5 F &amp; amp; sheath length of ≈11 cm. It should be made of radiopaque polyurethane &amp; should be FDA approved.</li> <li>It should come with 1 catheter contamination shield, ≈80 cm in length.</li> <li>It should have one 4-waystopcock, one vessel dilator &amp; amp; four 4x 4gauze pads.One disposable scalpel, # 11 blade &amp; amp; one 18 ga x 2 ½ thin wall needle.</li> </ul>
2	10	Item Name: SWAN GANZ THERMODILUTION VIP CATHETER	Specification:



S. No.	Tender Ref. No.	Existing Detail	Modifications
		<ul> <li>Specification:</li> <li>Flow directed 5-lumen balloon tipped pulmonary artery catheter. 7.5 Fr in diameter &amp; amp;≈</li> <li>110 cm in length</li> <li>It should have a coating of Heparin as well as antimicrobial material (Benzalkonium Chloride) on entire catheter surface.</li> <li>Should be able to give Cardiac output using Thermo dilution method</li> <li>Should be able to give PA pressure, PAWP &amp; amp; RA Pressure when connected to trasducer.</li> <li>Should have proximal infusion &amp; proximal injectateports at ≈31 cm &amp; amp;≈30 cm respectively.</li> <li>It should come with one volume-limiting province of 1 For for helioan inflation.</li> </ul>	<ul> <li>Flow directed 5-lumen balloon tipped pulmonary artery catheter. 7.5 Fr in diameter &amp; amp;≈ 110 cm in length</li> <li>It should have US FDA approved.</li> <li>Should be able to give Cardiac output using Thermo dilution method</li> <li>Should be able to give PA pressure, PAWP &amp; amp; RA Pressure when connected to trasducer.</li> <li>Should have proximal infusion &amp; proximal injectateports at ≈31 cm &amp; amp;≈30 cm respectively.</li> <li>It should come with one volume-limiting syringe of 1.5cc for balloon inflation</li> </ul>
3	11	<ul> <li>syringe of 1.5cc for balloon inflation</li> <li>Item Name:</li> <li>SWAN GANZ PA CATHETER</li> <li>Specification: <ul> <li>Flow directed 3 lumen balloon tipped</li> <li>pulmonary artery catheter, 7 Fr in diameter &amp;</li> <li>≈110 cm in length</li> <li>Should be able to give PA pressure, PAWP &amp;</li> <li>RA Pressure when connected to transducer.</li> <li>Should have proximal infusion port at 30 cm.</li> <li>Recommended guide wire size 0.89 mm.</li> <li>It should come with one volume-limiting</li> <li>syringe of 1.5cc for balloon inflation</li> </ul> </li> </ul>	<ul> <li>Specification:</li> <li>Flow directed 3 lumen balloon tipped pulmonary artery catheter, 7 Fr in diameter &amp; ≈110 cm in length</li> <li>Should be able to give PA pressure, PAWP &amp; RA Pressure when connected to transducer. Should have proximal infusion port at 30 cm.</li> <li>Recommended guide wire size 0.89 mm.</li> <li>It should come with one volume-limiting syringe of 1.5cc for balloon inflation</li> <li>It should be US FDA Approved.</li> </ul>
4	18	Item Name:         THERMOPLASTIC       SUPRA-GLOTTIC         AIRWAY         DEVICE         Specification:         • Should have soft non inflatable anatomical seal, epiglottis blocker; buccal cavity stabilizer, integrated bite block; integrated gastric         channel       for         passage       of         nasogastric       tube         • Size: 1, 1.5,2,3,4,5	Item to be read as DELETED
5	46	Item Name: SPECIFICATION FOR BIS SENSORS Specification: It should have four sensors element to capture, recognize and discard artifact. Connector should provide secure click-in connection with push button release	<ul> <li>Specification:</li> <li>It should have four sensors element to capture, recognize and discard artifact.</li> <li>Connector should provide secure click-in connection with push button release</li> <li>It should include an additional above eye element, which captures critical eye motion data, along with other important physiological signals.</li> </ul>



S. No.	Tender Ref. No.	Existing Detail	Modifications
		<ul> <li>It should include an additional above eye element, which captures critical eye motion data, along with other important physiological signals.</li> <li>It should have flexible design adjusts to different head sizes</li> <li>It should have FDA approval</li> <li>Should be supplied by authorized channel partner from principal company/ manufacture. Electrode</li> </ul>	<ul> <li>It should have flexible design adjusts to different head sizes</li> <li>It should have FDA approval</li> <li>Should be supplied by authorized channel partner from principal company/ manufacture. Electrode</li> <li>It should have US FDA Approved.</li> </ul>
6	47	Item Name: NIRS SENSORS Specification: ADULT AND PEDIATRIC	Specification: ADULT AND PEDIATRIC It should have US FDA Approved
7	48	<ul> <li>Item Name: DISPOSABLE PULSE OXIMETER SENSORS (SP02)</li> <li>Specification: <ul> <li>Should be compliant with the equipment intended to continuously estimate and display non-invasively a patient's arterial blood oxygen saturation and pulse rate</li> <li>Proposed sensors must comply with NellcorTechnology.</li> <li>Digit sensors should be available in Adult, Pediatric, Neonatal and Infant sizes to accommodate diverse patient sizes, weights and needs.</li> <li>Seller must have all types of sensors available (e.g., finger, forehead, and ear). Sensor must be available in Adult, Pediatric, Infant and Neonatal Sizes.</li> <li>Sensor extension cables must be available in 4' and 9' lengths.</li> <li>The sensors must be compatible with all generations of NellcorOximetry Technology in NellcorOximeters and OEM/Licensee Multipara meter systems with all generation of Nellcor technology.</li> <li>The sensor shall resist interference from ambient light.</li> <li>The sensors shall not be adversely affected by fluid spills or common disinfectantsolutions.</li> </ul> </li> </ul>	<ul> <li>Specification:</li> <li>Should be compliant with the equipment intended to continuously estimate and display non-invasively a patient's arterial blood oxygen saturation and pulse rate</li> <li>Proposed sensors must comply with NellcorTechnology.</li> <li>Digit sensors should be available in Adult, Pediatric, Neonatal and Infant sizes to accommodate diverse patient sizes, weights and needs.</li> <li>Seller must have all types of sensors available (e.g., finger, forehead, and ear). Sensor must be available in Adult, Pediatric, Infant and Neonatal Sizes.</li> <li>Sensor extension cables must be available in 4' and 9' lengths.</li> <li>The sensors must be compatible with all generations of NellcorOximetry Technology in NellcorOximeters and OEM/Licensee Multi-para meter systems with all generation of Nellcor technology.</li> <li>The sensor shall resist inadvertent displacement.</li> <li>The sensor shall not be adversely affected by fluid spills or common disinfectantsolutions.</li> <li>It should have US FDA approved.</li> </ul>
8	53	Item Name: AORTIC PUNCH Specification: Should have Sharp, dual cutting edge for clean, precise removal of aortic tissue	Specification: Should have Sharp, dual cutting edge for clean, precise removal of aortic tissue • should have a conical tip or round / elliptical tip for easy insertion by straight or button hole technique.



S. No.	Tender Ref. No.	Existing Detail	Modifications
		<ul> <li>should have a conical tip for easy insertion by straight or button-hole technique</li> <li>Punch should be available with tapered cutting blade to increase visibility.</li> <li>Should be available in all functional sizes</li> <li>Should have long and short handle configuration</li> </ul>	<ul> <li>Punch should be available with tapered cutting blade to increase visibility.</li> <li>Should be available in all functional sizes</li> <li>Should have long and short handle configuration</li> <li>It should have US FDA approved.</li> </ul>
9	54	Item Name: Coronary artery retraction clips Sizes 3mm and 5mm Specification: • Should be designed to improve exposure to a coronary anastomosis site. Should be able to small prongs and gently hold tissues away from the vessel to improve vision.	<ul> <li>Specification:</li> <li>Should be designed to improve exposure to a coronary anastomosis site. Should be able to small prongs and gently hold tissues away from the vessel to improve vision.</li> <li>It should have US FDA approved.</li> </ul>
10	55	Item Name: Temporary pigtail pacing wire Specification: • Should include unipolar atrial and ventricular pacing, pediatric unipolar pacing, and the bipolar pacing lead.	<ul> <li>Specification:</li> <li>Should include unipolar atrial and ventricular pacing, pediatric unipolar pacing, and the bipolar pacing lead.</li> <li>It should have US FDA approved.</li> </ul>
11	56	Item Name: Tissue Stabilizer for beating heart Specification: • Should be a low profile tissue stabilizer with auto spread feature of pods.	<ul> <li>Specification:</li> <li>Should be a low profile tissue stabilizer with auto spread feature of pods.</li> <li>It should have US FDA approved.</li> </ul>
12	57	Item Name: Heart positioner for beating heart Specification: • Should be a low profile positioner for apex and off apex position use/ to lift the heart.	<ul> <li>Specification:</li> <li>Should be a low profile positioner for apex and off apex position use/ to lift the heart.</li> <li>It should have US FDA approved.</li> </ul>
13	58	Item Name: Tissue Stabilizer for Minimally invasive beating heart surgery. Specification: • Should be stabilizer to be used via thoracotomy with detachable shaft and should have fully rotating pods.	<ul> <li>Specification:</li> <li>Should be stabilizer to be used via thoracotomy with detachable shaft and should have fully rotating pods.</li> <li>It should have US FDA approved.</li> </ul>
14	59	Item Name: Heart positioner for Minimally invasive beating heart surgery Specification: Should be a positioner with detachable shaft for MICS via thoracotomy.	<ul> <li>Specification:</li> <li>Should be a positioner with detachable shaft for MICS via thoracotomy.</li> <li>It should have US FDA approved.</li> </ul>
15	60	Item Name:	Specification:



S. No.	Tender Ref. No.	Existing Detail	Modifications
		Mist Blower <b>Specification:</b> • Should have specialized nozzle utilizing a micro orifice for fluid delivery and a separate orifice for gas delivery. Should have the malleable shaft and on/off control on the hand piece.	<ul> <li>Should have specialized nozzle utilizing a micro orifice for fluid delivery and a separate orifice for gas delivery. Should have the malleable shaft and on/off control on the hand piece.</li> <li>It should have US FDA approved.</li> </ul>
16	61	Item Name:Arteriotomyshunts(Intra Coronary Shunts)Specification:• Sizes 1.0,1.25,1.5,1.75,2.0,2,5,2.5, 2.75&3.0mm.• Should be beveled tip.• Should have fully transparent body.	<ul> <li>Specification:</li> <li>Sizes 1.0,1.25,1.5,1.75,2.0,2,5,2.5, 2.75 &amp; amp;</li> <li>3.0mm.</li> <li>Should be beveled tip.</li> <li>Should have fully transparent body.</li> <li>It should have US FDA approved.</li> </ul>
17	62	Item Name:         ACT Cartridges         Specification:         a. Should have double cell measurement to increase         accuracy       of         results,         b. Should use liquid kaolin activator for real time         efficient       clot         detection,         c. Should allow room temperature storage	<ul> <li>Specification:</li> <li>a. Should have double cell measurement to increase accuracy of results,</li> <li>b. Should use liquiid kaolin activator for real time efficient clot detection,</li> <li>c. Should allow room temperature storage</li> <li>It should have US FDA approved.</li> </ul>
18	68	Item Name: LV Vent: Specification: • Left ventricular vent should consist of round tipped dual lumen tube with lateral eyes, suture collars & amp; proximal funnel connectors used for emptying the Left Ventricle	<ul> <li>Specification:</li> <li>Left ventricular vent should consist of round tipped dual lumen tube with lateral eyes, suture collars &amp; amp; proximal funnel connectors used for emptying the Left Ventricle for clearer view during surgery. All sizes.</li> <li>It should be US FDA approved.</li> </ul>
19	69	for clearer view during surgery. All sizes. Item Name: AntegradeOstialCardioplegia Cannula - All Size Specification: • Antegrade-cardioplegia cannula should be made of soft 100% silicone conduit with distal bulbous end & should have luer lock connector at the proximal end for administration of cardioplegia solution into the coronary ostia. Sizes: 3.5, 4, 4.5, 5, 5.5, 6 mm.	<ul> <li>Specification:</li> <li>Antegrade-cardioplegia cannula should be made of soft 100% silicone conduit with distal bulbous end &amp; amp; should have luer lock connector at the proximal end for administration of cardioplegia solution into the coronary ostia. Sizes: 3.5, 4, 4.5, 5, 5.5, 6 mm</li> <li>It should be US FDA approved.</li> </ul>
20	70	Item Name: Cardioplegia Cannula Size Infant: Specification: • Cardioplegia cannula should be made of soft 100% silicone & amp; should be tapered conduit with distal open tip having adjacent lateral eyes, followed by a flange for secure	<ul> <li>Specification:</li> <li>Cardioplegia cannula should be made of soft 100% silicone &amp; amp; should be tapered conduit with distal open tip having adjacent lateral eyes, followed by a flange for secure positioning. It should have proximal luer lock &amp; amp; a SS needle with hub. Size: Infant.</li> <li>It should be US FDA approved.</li> </ul>



S. No.	Tender Ref. No.	Existing Detail	Modifications
		positioning. It should have proximal luer lock & amp; a SS needle with hub. Size: Infant.	
21	71	Item Name: Arterial cannula for arch cannulation Sizes 20FR -24 Fr. Specification: • Should have elongated one piece wire wound body with radiopaque suture ring and dilator with depth markings.	<ul> <li>Specification:</li> <li>Should have elongated one piece wire wound body with radiopaque suture ring and dilator with depth markings.</li> <li>It should be US FDA approved.</li> </ul>
22	72	Item Name: Axillary artery one piece cannula with central arterial pressure measurement Specification: Sizes 18 Fr24Fr.Should have elongated one piece wire wound body with radiopaque suture ring and dilator with depth markings. Should	Specification: Sizes 18 Fr24Fr.Should have elongated one piece wire wound body with radiopaque suture ring and dilator with depth markings. Should have integrated pressure monitoring port at tip It should be US FDA approved.
23	73	have integrated pressure monitoring port at tip         Item Name:         One piece Pediatric Aortic cannula Size 6FR-16         Fr Vented         Specification:         Should be beveled with thin wall tips and should be elongated one piece.	Specification: Should be beveled with thin wall tips and should be elongated one piece. It should be US FDA approved.
24	74	Item Name: Straight Tip Arch cannula Sizes 8Fr-24 Fr vented and Non vented; Pediatric and Adult Specification: • Should be beveled thin wall tips attached to tapered cannula bodies. Should be available in pediatric and adult sizes.	Specification: • Should be beveled thin wall tips attached to tapered cannula bodies. Should be available in pediatric and adult sizes. It should be US FDA approved.
25	75	Item Name: Angled tip Arterial cannula Sized 8 Fr -24 Fr Specification: • Should be beveled thin wall tips attached to tapered cannula bodies. Should have kink resistant wire wound bodies.	Specification: • Should be beveled thin wall tips attached to tapered cannula bodies. Should have kink resistant wire wound bodies. It should be US FDA approved.
26	76	Item Name: Arterial cannula angled with diffused flow tip Sizes 18 Fr-24Fr Specification: • Should be one piece wire wound body with integrated flutes for diffused flow.	<ul> <li>Specification:</li> <li>Should be one piece wire wound body with integrated flutes for diffused flow.</li> <li>It should be US FDA approved.</li> </ul>
27	77	Item Name:         Femoral one piece Arterial and venous cannula kit	Specification: • Sizes 8-21 Fr. arterial and 8-29 Fr. Venous cannula • Should be one piece wire wound body.



S. No.	Tender Ref. No.	Existing Detail	Modifications
		Specification: • Sizes 8-21 Fr. arterial and 8-29 Fr. Venous cannula	It should be US FDA approved.
		Should be one piece wire wound body.	
28	78	Item Name: Femoral Multistage venous cannula Specification: • Sizes: 29/29/29 Fr and 29/46/37 Fr • Should be one piece wire wound multiple side holes body with percutaneous kit.	<ul> <li>Specification:</li> <li>Sizes: 29/29/29 Fr and 29/46/37 Fr</li> <li>Should be one piece wire wound multiple side holes body with percutaneous kit.</li> <li>It should be US FDA approved.</li> </ul>
29	79	Item Name: Standard insertion kit for femoral cannulation Specification: a. Kit for femoral cannulation should contain 12-14 Fr, Scalpel # 11 blade, Introduce needle 18 ga, vessel dilator 8-10 Fr, vessel dilator Guidewire .038 in X 180 cm, catheter tip , Syringe	Specification: a. Kit for femoral cannulation should contain 12-14 Fr, Scalpel # 11 blade, Introduce needle 18 ga, vessel dilator 8-10 Fr, vessel dilator Guidewire .038 in X 180 cm, catheter tip , Syringe It should be US FDA approved.
30	80	Item Name: Carpentier Bi-caval femoral venous cannula Specification: • Sizes : 24/29 Fr, 30/33Fr • Should have wire wound kink resistant two stage design.	<ul> <li>Specification:</li> <li>Sizes : 24/29 Fr, 30/33Fr</li> <li>Should have wire wound kink resistant two stage design.</li> <li>It should be US FDA approved.</li> </ul>
31 32	81 82	Item Name: Single stage venous cannula with Metal tip Sizes 12-31 Fr Specification: • Should have kink resistant wire wound taper body with beveled metal tip. Item Name: Single stage Venous cannula with right angle Sizes 12-40 Fr Specification: • Should have kink resistant wire wound taper body with tapered multiport tips. be right angled with plastic tip.	<ul> <li>Specification:</li> <li>Should have kink resistant wire wound taper body with beveled metal tip.</li> <li>It should be US FDA approved.</li> </ul> Specification: <ul> <li>Should have kink resistant wire wound taper body with tapered multiport tips.</li> <li>be right angled with plastic tip.</li> <li>It should be US FDA approved.</li> </ul>
33	83	Item Name: Single stage straight venous cannula malleable Sizes 12-40 Fr Specification: Should have kink resistant malleable wire wound taper body with tapered multiport tips.	Specification: Should have kink resistant malleable wire wound taper body with tapered multiport tips. It should be US FDA approved.
34	84	Item Name:	<ul> <li>Specification:</li> <li>Should be two-stage cannula with oval body in various sizes. Should be two-stage cannula with</li> </ul>



S. No.	Tender Ref. No.	Existing Detail	Modifications
		Double-stage venous cannula round and oval shapeSizes28/36,36/46,32/46, 36/51, 32/40, 36/46 Fr.	round body in various sizes. Should have cannula body with thin walled with depth markings. It should be US FDA approved.
		Specification: • Should be two-stage cannula with oval body in various sizes. Should be two-stage cannula with round body in various sizes. Should have cannula body with thin walled with depth markings.	
35	85	Item Name: Three stage venous cannula Sizes 29/29/29 Fr 29/46/37 Fr Specification: Should be three stage venous cannula for VacuumAssisted Venous Drainage(VAVD)/Kinetic Assisted Venous	Specification: Should be three stage venous cannula for Vacuum Assisted Venous Drainage(VAVD)/Kinetic Assisted Venous Drainage(KAVD) It should be US FDA approved.
36	86	Drainage(KAVD) Item Name: Multiple Stage Venous cannula Sizes 23 Fr and 29 Fr Specification:	Specification: Should have polyurethane wire wound body with radiopaque markers and multiple holes at distal end.
		Specification: Should have polyurethane wire wound body with radiopaque markers and multiple holes at distal end.	It should be US FDA approved.
37	87	Item Name: Aortic root cannula Sizes 4 Fr-11 Fr Specification: • Should have radiopaque tips attached to clear PVC bodies. Additional features: aortic root pressure monitoring and left heart venting. Can be used to aspirate air emboli as well administer cardioplegia.	<ul> <li>Specification:</li> <li>Should have radiopaque tips attached to clear PVC bodies. Additional features: aortic root pressure monitoring and left heart venting. Can be used to aspirate air emboli as well administer cardioplegia.</li> <li>It should be US FDA approved.</li> </ul>
38	88	Item Name: Aortic root cannula with Vent line Sizes 5 Fr-11 Fr Specification: • Should have radiopaque tips attached to	<ul> <li>Specification:</li> <li>Should have radiopaque tips attached to clear bodies with separate vent line.</li> <li>It should be US FDA approved.</li> </ul>
39	89	clear bodies with separate vent line. Item Name: Aortic root cannula pediatric Neonatal Sizes 4 Fr Specification:	Specification: • Should be able to aspirate air from Aorta, Should have radiopaque tip and standard 50.5 in length or a shortened 2.5 in. It should be US FDA approved.
		• Should be able to aspirate air from Aorta, Should have radiopaque tip and standard 50.5 in length or a shortened 2.5 in.	
40	90	Item Name:	Specification:



S. No.	Tender Ref. No.	Existing Detail	Modifications
		Cardiopleiga needles: Neonatal, Pediatric and Adult Sizes. 5Fr and 8 Fr <b>Specification:</b> • Should be able to aspirate air from Aorta, Should have radiopaque tip and standard 50.5	<ul> <li>Should have stainless steel tip with plastic depth stop, Needle should be attached to Flexible PVC tubing which should include a drape clamp and female luer.</li> <li>It should be US FDA approved.</li> </ul>
41	91	<ul> <li>in length or a shortened 2.5 in.</li> <li>Item Name:</li> <li>Silicon Ostial cannula for continuous perfusion</li> <li>Sizes 15 Fr,17Fr and 20 Fr</li> <li>Specification:</li> <li>Should have a silicon body with soft bulb</li> <li>shaped tips, should have a female luer</li> <li>connection site</li> </ul>	Specification: • Should have a silicon body with soft bulb shaped tips, should have a female luer connection site It should be US FDA approved.
42	92	Item Name: Ostial perfusion cannula with basket tip and soft convex tip Sizes 10 Fr, 12 Fr and 14 Fr. Specification: • Should have flanged, radiopaque basket tips/soft tips attached to malleable stainless steel shafts.	<ul> <li>Specification:</li> <li>Should have flanged, radiopaque basket tips/soft tips attached to malleable stainless steel shafts.</li> <li>It should be US FDA approved.</li> </ul>
43	93	Item Name: Minimally invasive Aortic root cannula with length more than 30 cm Specification: • Should have more than 30 cm long body to allow insertion during MICS	<ul> <li>Specification:</li> <li>Should have more than 30 cm long body to allow insertion during MICS</li> <li>It should be US FDA approved.</li> </ul>
44	94	Item Name:         Minimally invasive retrograde cardioplegia cannula with deflecting tip Sizes 13 and 15 Fr         Specification:         • Should have tip deflecting models for sinus placement through thoracotomy should be able to allow minimum 10mm sweep. Should be auto/ manual inflatable.	<ul> <li>Specification:</li> <li>Should have tip deflecting models for sinus placement through thoracotomy should be able to allow minimum 10mm sweep. Should be auto/ manual inflatable.</li> <li>It should be US FDA approved.</li> </ul>
45	95	<ul> <li>Item Name: Retrograde cardioplegia cannula with Auto inflate Sizes 13 Fr and 15 Fr</li> <li>Specification: <ul> <li>Should have silicon/ PVC bodies with auto inflatable cuff and pressure monitoring lines; should have multiport tip/ integral stopcock.</li> </ul> </li> </ul>	<ul> <li>Specification:</li> <li>Should have silicon/ PVC bodies with auto inflatable cuff and pressure monitoring lines; should have multiport tip/ integral stopcock.</li> <li>It should be US FDA approved.</li> </ul>
46	96	Item Name: Multiple perfusion set Specification:	<ul> <li>Specification:</li> <li>Should have silicon/ PVC bodies with auto inflatable cuff and pressure monitoring lines; should have multiport tip/ integral stopcock.</li> </ul>



S. No.	Tender Ref. No.	Existing Detail	Modifications
		Should have silicon/ PVC bodies with auto	It should be US FDA approved.
		inflatable cuff and pressure monitoring	
		lines; should have multiport tip/ integral	
		stopcock.	
47	97	Item Name:	Specification:
		Distal perfusion kit	Should be able to perform simultaneous perfusion
			of Aortic root and upto 3 or more
		Specification:	vein grafts.
		Should be able to perform simultaneous	It should be US FDA approved.
		perfusion of Aortic root and upto 3 or more	
48	98	vein grafts. Item Name:	Specification:
40	90	Left Heart Vent Catheters Sizes 10	Should be of PVC or silicon, could be used for
		Fr,13Fr,15Fr,16Fr,18Fr,20Fr,24Fr	direct and indirect venting, should have
			perforated tip, malleable bodies with depth mark.
		Specification:	Should have a choice of either PVC
		Should be of PVC or silicon, could be used for	or Silicone along with straight body with depth
		direct and indirect venting, should have	marking. All ventsshould terminate
		perforated tip, malleable bodies with depth	with a vented or non vented ¼ in connector.
		mark. Should have a choice of either PVC	It should be US FDA approved.
		or Silicone along with straight body with depth	
		marking. All ventsshould terminate	
40	00	with a vented or non vented ¼ in connector.	Crestingtion
49	99	Item Name: Pericardial Sumps Sizes 20 Fr	Specification: Should feature a fluted tip, should be encased in a
		rencardial sumps sizes 20 Fi	stainless steel spring and should have
		Specification:	weight at the end.
		Should feature a fluted tip, should be encased	It should be US FDA approved.
		in a stainless steel spring and should have	
		weight at the end.	
50	100	Item Name:	Specification:
		Intra-cardiac sump Size 20 Fr	<ul> <li>Should feature a perforated pool tip to maximize</li> </ul>
			suction and minimize tissue trauma.
		Specification:	The tip design should be ideal for atraumatic
		• Should feature a perforated pool tip to maximize suction and minimize tissue trauma.	suction within the heart chambers.
		The tip design should be ideal for atraumatic	It should be US FDA approved.
		suction within the heart chambers.	
51	101	Item Name:	Specification:
	-	Suction Tube Sizes 6 Fr,10Fr and 20 Fr	Should have variety of cardiac suction tubes,
			intracardiac suction tubes & amp; rigid suction
		Specification:	tubes.
		Should have variety of cardiac suction tubes,	It should be US FDA approved.
		intracardiac suction tubes & amp; rigid suction	
		tubes.	
52	102	Item Name:	Specification:
		Micro Suction tubes Sizes 9 Fr	Should have a vacuum control port, malleable     should equipped with a length of
		Specification	shaft, should equipped with a length of
		Specification:	tubing and clamp terminating with a ¼ in (0.64cm)
		• Should have a vacuum control port, malleable shaft, should equipped with a length of	connector. It should be US FDA approved.



S. No.	Tender Ref. No.	Existing Detail	Modifications
		tubing and clamp terminating with a ¼ in (0.64cm) connector.	
53	103	Item Name: Macro Rigid suction tubes Sizes 20 Fr Specification:	<ul> <li>Specification:</li> <li>Should have tip made up of stainless steel, should have fluted pool tip to maximize suction and minimize tissue trauma, should offer</li> </ul>
		• Should have tip made up of stainless steel, should have fluted pool tip to maximize suction and minimize tissue trauma, should offer gentle suction.	gentle suction. It should be US FDA approved.
54	104	Item Name:	Specification:
-		PA vent cannula Specification:	Should have a soft, pliable tip with female luer end; should have movable depth marker and an introducer needle should be included.
		Should have a soft, pliable tip with female luer end; should have movable depth marker	It should be US FDA approved.
		and an introducer needle should be included.	
55	105	Item Name:	Specification:
		Tourniquet Sets Sizes 12 Fr, 16 Fr and 19 Fr.	Should have color coded tubes with varying lengths for adults and pediatric, should
		Specification:	have wire snares included with the tube set.
		Should have color coded tubes with varying	It should be US FDA approved.
		lengths for adults and pediatric, should	
56	106	have wire snares included with the tube set. Item Name:	Specification:
50	100	Vessel cannula with and without valve sizes 2mm,3mm, 4mm	Should have clear and radiopaque bodies. These should terminate with a female luer. Should have tips in various sizes and shapes.
		Specification:	It should be US FDA approved.
		Should have clear and radiopaque bodies. These should terminate with a female luer.	
		Should have tips in various sizes and shapes.	
57	107	Item Name:	Specification:
		Arteriotomy Cannula Sizes 2mm, 3mm, 4mm, 5mm, 6mm	<ul> <li>Should have polyurethane tube with a bulb shaped tip connected to winged female luer.</li> <li>It should be US FDA approved.</li> </ul>
		Specification:	
		• Should have polyurethane tube with a bulb	
		shaped tip connected to winged female luer.	
58	108	Item Name: Rapid priming set Length 35cm and 40cm	Specification: These should facilitate the transfer of fluid during the priming of the circuit. Should
		Specification:	have large bore spikes attached to flexible tubing
		These should facilitate the transfer of fluid	with a clamp. Should terminate with
		during the priming of the circuit. Should	either an open end tube or a male luer.
		have large bore spikes attached to flexible	It should be US FDA approved.
		tubing with a clamp. Should terminate with	
		either an open end tube or a male luer.	
59	109	Item Name:	Specification:
		Rapid Priming "Y" Set Length around 1 m	These should facilitate the transfer of fluid during the priming of the circuit. Should
		Specification:	have large bore spikes attached to flexible tubing



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		These should facilitate the transfer of fluid during the priming of the circuit. Should have large bore spikes attached to flexible tubing with a clamp. Should attach to a "Y" adapter with a length of tubing and another clamp.	with a clamp. Should attach to a "Y" adapter with a length of tubing and another clamp. It should be US FDA approved.
60	110	Clamp.         Item Name:         SPECIFICATION FOR ADULT OXYGENATOR         Specification:         • Priming volume should be less than 300 ml.         • Blood flow range should be 0-7lts/min.         • Oxygen transfer should be atleast 400ml/min.         • Heat exchange efficiency should not be less than         • Musing material should be of polycarbonate.         • Surface area of the fibers should be from 1.8m         1.8m       2         • Heat exchanger should be made of stainless steel and surface area should be approx. 20cm 2         Blood       inlet         Blood       outlet         port       1/4         Gas       Outlet         port       1/4         Gas       Outlet         port       1/4         Gas       Outlet         water       Inlet       42         • Blood storage capacity of hard shell reservoir should be       approx.         • Maximum Pressure Blood inlet 1000 mmHg       water         • Maximum operating volume of reservoir should be       200ml.         • Hard shell reservoir should have cardiotomy       filter         and       de-foaming       part         • Hard-shell reservoir should have venous filter       with       p	<ul> <li>Specification:</li> <li>Priming volume should be less than 300 ml.</li> <li>Blood flow range should be 0-7lts/min.</li> <li>Oxygen transfer should be atleast 400ml/min.</li> <li>Heat exchange efficiency should not be less than 0.50.</li> <li>Housing material should be of polycarbonate.</li> <li>Surface area of the fibers should be from 1.8m 2 to 2.4m 2</li> <li>Heat exchanger should be made of stainless steel and surface area should be approx. 20cm 2 Blood inlet port (from pump) 3/8 Blood outlet port 3/8 Cardioplegia port 1/4 Gas Outlet Port 1/4 Gas O</li></ul>
61	111	15010mmHg Item Name: SPEICIFICATION FOR PEDIATRIC OXYGENATOR Specification:	<ul> <li>Specification:</li> <li>Priming volume should beless than 150ml.</li> <li>Blood flow range should be 0.40.01ltrs/min.</li> <li>Oxygen transfer should not be less than 250ml/min.</li> </ul>



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		<ul> <li>Priming volume should beless than 150ml.</li> <li>Blood flow range should be 0.40.01ltrs/min.</li> </ul>	• Pressure drop should be least-up to 100mmHg or less.
		• Oxygen transfer should not be less than 250ml/min.	• Heat exchange efficiency should not be less than 0.65.
		• Pressure drop should be least-up to 100mmHg or less.	<ul> <li>Housing material should be of polycarbonate.</li> <li>Surface area of the fibers should be approx 1.0m</li> </ul>
		• Heat exchange efficiency should not be less than 0.65.	<ul><li>2 .</li><li>Heat exchanger should be made of stainless steel</li></ul>
		<ul><li>Housing material should be of polycarbonate.</li><li>Surface area of the fibers should be approx</li></ul>	and surface area should be approx 1300cm 2 . Blood inlet port 3/8
		1.0m2• Heat exchanger should be made of stainless	Blood outlet Port 3/8 Cardioplegia port 1/4
		steel and surface area should be approx 1300cm 2	Gas Inlet Port 1/4 Gas Outlet port 1/4
		Blood inlet port 3/8	Water Port 1/2
		Cardioplegia port 1/4	Maximum Pressure Blood inlet 1000mmHg, Water Inlet 42 PSI
		GasInletPort1/4GasOutletport1/4	• Blood Storage capacity of hard shell reservoir should be max 3000ml.
		WaterPort1/2Maximum Pressure Blood inlet 1000mmHg,	<ul> <li>Minimum operative volume of hard shell reservoir should be 100ml.</li> </ul>
		WaterInlet42PSI• Blood Storage capacity of hard shell reservoir	<ul> <li>Hard-shell reservoir should have cardiotomy filter and defoaming part.</li> </ul>
		shouldbemax3000ml.• Minimum operative volume of hard shell	• Hard-shell reservoir should have venous filter with pore size should be 20mm
		<ul><li>reservoir should be 100ml.</li><li>Hard-shell reservoir should have cardiotomy</li></ul>	<ul> <li>The hard-shell reservoir should have</li> <li>Venous blood inlet port 3/8 rotatable</li> </ul>
		<ul><li>filter and defoaming part.</li><li>Hard-shell reservoir should have venous filter</li></ul>	<ul> <li>Blood outlet port ( to pump) 3/8</li> <li>Suction port(six) ¼</li> </ul>
		with pore size should be 20mm • The hard-shell reservoir should have	<ul> <li>Vertical port to CR filter 3/8</li> <li>Quick prime port ¼</li> </ul>
		<ul> <li>Venous blood inlet port 3/8 rotatable</li> <li>Blood outlet port ( to pump) 3/8</li> </ul>	• Auxiliary port 3/8 Water Inlet 42 PSI
		<ul> <li>Suction port(six) ¼</li> <li>Vertical port to CR filter 3/8</li> </ul>	
		Quick prime port ½     Auxiliary port 3/8 Water Inlet 42 PSI	
62	112	Item Name: SPECIFICATION FOR NEONATAL OXYGENATOR	<ul> <li>Specification:</li> <li>Blood flow range should be 0.1 – 2 liters/min.</li> </ul>
		Specification:	<ul><li> Priming Volumes should be around 40 ml.</li><li> Oxygen transfer should be minimum 100 ml/min.</li></ul>
		<ul> <li>Blood flow range should be 0.1 – 2 liters/min.</li> <li>Priming Volumes should be around 40 ml.</li> </ul>	• Pressure drop should be least up to 100mmHg or less.
		• Oxygen transfer should be minimum 100 ml/min.	• Heat exchange efficiency should not be less than 0.65.
		• Pressure drop should be least up to 100mmHg or less.	<ul> <li>Housing material should be of polycarbonate.</li> <li>Surface area of the fibers should be ≈0.5m 2 and</li> </ul>
		• Heat exchange efficiency should not be less than 0.65.	<ul><li>material should be micro porous polypropylene.</li><li>Heat exchanger should be made of stainless steel</li></ul>
		<ul> <li>Housing material should be of polycarbonate.</li> <li>Surface area of the fibers should be ≈0.5m 2</li> </ul>	<ul> <li>and surface area should be approx 0.035m 2 .</li> <li>Blood inlet port (from pump) ¼</li> </ul>



S. No.	Tender Ref. No.	Existing Detail	Modifications
		and material should be micro porous polypropylene. • Heat exchanger should be made of stainless steel and surface area should be approx 0.035m 2 • Blood inlet port (from pump) ½ Blood outlet port ½ Luer port (for recirculation or blood cardioplegia) one luer lock on blood outlet Gas inlet port ½ Gas outlet port 5/16 Water ports ½ Maximum pressure Blood inlet 1000mmHg • Blood storage capacity of hard shell reservoir should be 1000ml • Minimum operating volume of hard-shell reservoir should be 15ml • Hard-shell reservoir should have cardiotomy filter and defoamer • The hard-shell should have • Venous blood inlet port ½ • Blood output port (to pump) ½ • Suction port (five) 3/16 • Quick prime port ½ • Auxiliary port ½-3/8 Maximum sustainable negative pressure in reservoir -150mmHg	Blood outlet port ¼ Luer port (for recirculation or blood cardioplegia) one luer lock on blood outlet Gas inlet port ¼ Gas outlet port 5/16 Water ports ½ Maximum pressure Blood inlet 1000mmHg • Blood storage capacity of hard shell reservoir should be 1000ml • Minimum operating volume of hard-shell reservoir should be 15ml • Hard-shell reservoir should have cardiotomy filter and defoamer • The hard-shell should have • Venous blood inlet port ¼ • Blood output port (to pump) ¼ • Suction port (five) 3/16 • Quick prime port ¼ • Vent port ¼ • Auxiliary port ¼-3/8 Maximum sustainable negative pressure in reservoir -150mmHg Water inlet 2Kgf/cm 2 It should be US FDA approved.
63	113	Water inlet 2Kgf/cm 2Item Name:SPECIFICATIONS FOR PEDIATRIC ARTERIALFILTER WITH BYPASS LOOPSpecification:The Arterial Filter should be for pediatric use.Priming volume should not be more than 90mlFilter pore size should be 30- 40 micron.The outlet and inlet blood posts should be 3/8or¼".The filter should allow maximum blood flowrateof5.0L/min.The filter should be provided with a bypassloop at the inlet and outlet port.	Specification:The Arterial Filter should be for pediatric use.Priming volume should not be more than 90mlFilter pore size should be 30- 40 micron.The outlet and inlet blood posts should be 3/8 or¼".The filter should allow maximum blood flow rateof 4.0 to 5.0 L / minThe filter should be provided with a bypass loop atthe inlet and outlet port.
64	114	Item Name: SPECIFICATIONS FOR CARDIOPLEGIA HEAT EXCHANGER(BCD) Specification: It should have priming volume less than 50 ml. Blood flow rate should be between 0-600 ml/min Filter screen should be around 100 um.	Specification:It should have priming volume less than 50 ml.Blood flow rate should be between 0-600 ml/minFilter screen should be around 100 um.Inlet connection should be ¼and outlet connectionshouldbe3/16.Heat exchange surface area should be $\approx.20m$ 2.Heat exchange should be of stainless steelcorrugated/convolutedpipes.



S. No.	Tender Ref. No.	Existing Detail	Modifications
		<ul> <li>Inlet connection should be ¼and outlet connection should be 3/16.</li> <li>Heat exchange surface area should be ≈.20m</li> <li>Heat exchange should be of stainless steel corrugated/ convoluted pipes.</li> <li>Bubble trap should be integrated for highly efficient de-bubbling</li> <li>Integrated by pass manifold for easy de-bubbling</li> <li>Exchangeable water in /water out</li> <li>Blood flow path bottom up</li> <li>It should have tip in the surgeon pack so that it can be connected to cardioplegia cannula.</li> <li>It should be available both in 4:1 and 1:4 configurations.</li> </ul>	Bubble trap should be integrated for highly efficientde-bubbling de-bubbling Integrated by pass manifold for easy de-bubbling 
65	119	Item Name:         EXTRA CORPOREAL MEMBRANE OXYGENATOR (NEONATAL)         Specification:         • ECMO should have a validation for 14 days and should be phthalate free (NO DOP).         • Membrane used should be of polymethyl pentene fibers.         • Priming volume should be 100 ml.         • Should have contact surface area ≈0.70 square meters.         • Should cater for blood flow from 0.2 to 1.5 L/min.         • Heat exchanger surface area should be ≈0.4 square meter.         • Heat Exchanger performance factor should be of 0.77 ( 1.5 liter /min).         • Oxygenator and tubing should have coating of Phosphorylcholine.         • Inlet and outlet connector preferred is 1/4	<ul> <li>Specification:</li> <li>ECMO should have a validation for 14 days and should be phthalate free (NO DOP).</li> <li>Membrane used should be of polymethyl pentene fibers.</li> <li>Priming volume should be 100 ml.</li> <li>Should have contact surface area ≈0.70 square meters.</li> <li>Should cater for blood flow from 0.2 to 1.5 L/min.</li> <li>Heat exchanger surface area should be ≈0.4 square meter.</li> <li>Heat Exchanger performance factor should be of 0.77 ( 1.5 liter /min).</li> <li>Oxygenator and tubing should have coating of Phosphorylcholine.</li> <li>Inlet and outlet connector preferred is 1/4 (6.35 mm).</li> <li>It should be US FDA approved.</li> </ul>
66	120	<ul> <li>(6.35 mm).</li> <li>Item Name:</li> <li>EXTRA CORPOREAL MEMBRANE OXYGENATOR (PAEDIATRIC)</li> <li>Specification:</li> <li>ECMO should have a validation for 14 days and should be phthalate free (NO DOP).</li> <li>Membrane used should be of polymethylpentene fibers.</li> <li>Should have priming volume 200 ml.</li> <li>Should have contact surface area of around1.4 square meters.</li> </ul>	<ul> <li>Specification:</li> <li>ECMO should have a validation for 14 days and should be phthalate free (NO DOP).</li> <li>Membrane used should be of polymethylpentene fibers.</li> <li>Should have priming volume 200 ml.</li> <li>Should have contact surface area of around1.4 square meters.</li> <li>Should cater for blood flow from 0.3 to 4 liter /min.</li> <li>Heat exchanger should have surface area of ≈0.8 square meter.</li> </ul>



S. No.	Tender Ref. No.	Existing Detail	Modifications
		<ul> <li>Should cater for blood flow from 0.3 to 4 liter /min.</li> <li>Heat exchanger should have surface area of ≈0.8 square meter.</li> <li>Heat exchanger performance factor should be of ≈0.6 (@ 4 liter /min).</li> <li>Oxygenator and tubing should have coating of Phosphorylcholine(PC).</li> <li>Inlet and outlet connections preferred is 3/8(9.53 mm)</li> </ul>	<ul> <li>Heat exchanger performance factor should be of ≈0.6 (@ 4 liter /min).</li> <li>Oxygenator and tubing should have coating of Phosphorylcholine(PC).</li> <li>Inlet and outlet connections preferred is 3/8(9.53 mm)</li> <li>It should be US FDA approved.</li> </ul>
67	121	Joods String         Item Name:         EXTRA CORPOREAL MEMBRANE OXYGENATOR (ADULT)         Specification:         ECMO should have a validation for 14 days and should be phthalate free (NO DOP).         • Membrane used should be of polymethylpentene fibers.         • Should have priming volume of≈250ml.         • Should have contact surface area of 1.7-1.9 square meters.         • Should cater for blood flow from 0.4 to 7 liters/ min.         • Heat exchanger should have surface area of ≈0.8 square meter.         • Heat exchanger performance factor should be ≈0.6 (@ 4 liters / min).         • Oxygenator and tubing should have coating of Phosphorylcholine.(PC)         • Inlet and outlet connections preferred is 3/8 (9.53 mm)	<ul> <li>Specification:</li> <li>ECMO should have a validation for 14 days and should be phthalate free (NO DOP).</li> <li>Membrane used should be of polymethylpentene fibers.</li> <li>Should have priming volume of≈250ml.</li> <li>Should have contact surface area of 1.7-1.9 square meters.</li> <li>Should cater for blood flow from 0.4 to 7 liters/ min.</li> <li>Heat exchanger should have surface area of ≈0.8 square meter.</li> <li>Heat exchanger performance factor should be ≈0.6 (@ 4 liters / min).</li> <li>Oxygenator and tubing should have coating of Phosphorylcholine.(PC)</li> <li>Inlet and outlet connections preferred is 3/8 (9.53 mm)</li> <li>It should be US FDA approved.</li> </ul>
68	122	Item Name: SPECIFICATION FOR ADULT OXYGENATOR (Integrated with arterial filter & amp; heat exchanger) Specification: Oxygenator should have integrated arterial filter with cardiotomy/ venous reservoir. • Should have integrated arterial filter with self venting technology. • Heat exchanger surface area should be no more than 0.2m 2 . • Venous filter should be 50micro meter. • Priming volume should not be more than 300ml. • Blood flow range should be 0.5 to 7 LPM. • Heat exchange efficiency should not be less than 0.50 at max flow. • pressure drop should be minimum, up to 110	Specification:Oxygenator should have integrated arterial filterwith cardiotomy/ venous reservoir.• Should have integrated arterial filter with selfventingtechnology.• Heat exchanger surface area should be no morethan0.2m0.2m2• Venous filter should be 50 micro meter.• Priming volume should not be more than 350ml.• Blood flow range should be 0.5 to 7 LPM.• Heat exchange efficiency should not be less than0.50atmaxflow.• pressure drop should be minimum, up to 110mmHgor• Arterial filter should be 35micron meter.• Membrane surface area should be 2-2.5 m 2.It should be US FDA approved.



S. No.	Tender Ref. No.	Existing Detail	Modifications
		mmHgorless.• Arterial filter should be 35micron meter.• Membrane surface area should be 2-2.5 m 2 .	
69	123	Item Name:SPECIFIAITON FOR SMALL ADULT OXYGENATOR(Integrated Filter and Heat Exchanger)SpecificationOxygenator should have integrated arterialfilter with cardiotomy/venous reservoir.• Should have integrated arterial filter with selfventingtechnology.• Heat exchanger surface area should be nomorethan0.14m2• Venous filter should be 50micro meter.• Priming volume should not be more than150ml• Blood flow range should be 0.5 to 5 LPM.• Heat exchange efficiency should not be lessthan0.5maxflow@ 5 LPM• Pressure drop should be minimum up to 110	SpecificationOxygenator should have integrated arterial filterwithcardiotomy/venous• Should have integrated arterial filter with selfventingtechnology.• Heat exchanger surface area should be no morethan0.14m2• Venous filter should be 50micro meter.• Priming volume should not be more than 150ml• Blood flow range should be 0.5 to 5 LPM.• Heat exchange efficiency should not be less than0.5max• Pressure drop should be minimum up to 1100mmHgor• Arterial filter should be35micro meter.It should be US FDA approved.
70	124	mmHgorless.• Arterial filter should be35micro meter.Item Name:SPECIFICATION FOR PAEDIATRIC INFANT OXYGENATOR(Integrated Filter and Heat Exchanger)Specification: • Oxygenator should have integrated arterial 	Specification:         • Oxygenator should have integrated arterial filter with cardiotomy/ venous reservoir.         • Should have integrated arterial filter with self venting technology         • Heat exchanger surface area should be no more than 0.035m 2         • Venous filter should be50micro meter         • Priming volume should not be more than 45ml         • Blood flow range should be 0-1.5Ltrs/min         Heat exchange efficiency should not be less than 0.6 at max flow         Pressure drop should be minimum up to 100mmHg or less @ 1.5 LPW         Arterial filter should be35micro meter.         It should be US FDA approved.
71	125	Item Name:         Arterial Perfusion CannulaeAdult.         Specification:         Non-wire reinforced beveled tip Size 18Fr, 20Fr, 22Fr and 24 Fr. Overall lengthshould	Specification:Non-wire reinforced beveled tip Size 18Fr, 20Fr22Fr and 24 Fr. Overall lengthshouldbe approx.15cm with suture bump.It should be US FDA approved.



S. No.	Tender	Existing Detail	Modifications
	Ref. No.		
72	126	Item Name: Arterial Perfusion Cannulae Pediatric Specification: Sizes: 8Fr, 10Fr, 12Fr,14Fr and 16Fr. Non wire reinforced bevel tip. Overall length 18cm with suture bump.	Specification:Sizes:8Fr, 10Fr, 12Fr,14Fr and 16Fr.Nonwirereinforcedbeveltip.Overall length 18cm with suture bump.It should be US FDA approved.
73	127	Item Name:Venous Cannulae Single Stage. (neonate)Specification:Thin Flexible wire reinforced straight open lighthousetip.Overalllengthapprox.28cmwith ¼ acceptance size 12Fr, 14Fr and 16Fr	<b>Specification:</b> Thin Flexible wire reinforced straight open light house tip. Overall length approx.28cm with ¼ acceptance size 12Fr, 14Fr and 16Fr <b>It should be US FDA approved.</b>
74	128	Item Name:Venous Cannulae Single Stage(pediatric)Specification:Thin Flexible wire reinforced straight open light house tip. Overall length approx.35cm with ¼and 3/8 acceptance Size 18Fr, 20Fr, 22Fr and 24Fr.	Specification: Thin Flexible wire reinforced straight open light house tip. Overall length approx. 35cm with ¼ and 3/8 acceptance Size 18Fr, 20Fr, 22Fr and 24Fr. It should be US FDA approved.
75	129	Item Name: Venous Cannulae Single Stage(small adult) Specification: Thin flexible wire reinforced straight open lighthouse tip. Overall length 35cm with 3/8 acceptance Size 26Fr and 28Fr.	Specification: Thin flexible wire reinforced straight open lighthouse tip. Overall length 35cm with 3/8 acceptance Size 26Fr and 28Fr. It should be US FDA approved.
76	130	Item Name: Venous Cannulae Single Stage(adult) Specification: Thin Flexible wire reinforced straight open lighthouse tip. Overall length should be approx.40cm with 3/8 acceptance Size 30Fr, 32Fr, 34Fr, 36Fr, 38Fr and 40Fr.	<b>Specification:</b> Thin Flexible wire reinforced straight open lighthouse tip. Overall length should be approx.40cm with 3/8 acceptance Size 30Fr, 32Fr, 34Fr, 36Fr, 38Fr and 40Fr. <b>It should be US FDA approved.</b>
77	131	Item Name:Venous Cannulae Right AngledSpecification:Wire reinforced 90 0 angled plastic tip 10Fr,overalllengthapprox.28cmacceptance.	Specification:Wire reinforced 90 0 angled plastic tip 10Fr, overalllength approx.28cm and ¼ acceptance.It should be US FDA approved.
78	132	Item Name: Venous Cannulae Right Angled Specification: Wire reinforced 90 0 angled plastic tip 12Fr, 14Fr and 16Fr. Overall length should be	Specification: Wire reinforced 90 0 angled plastic tip 12Fr, 14Fr and 16Fr. Overall length should be approx. 33cm with ¼& 3/8 acceptance It should be US FDA approved.
		approx. 33cm with ¼& 3/8 acceptance	



S. No.	Tender Ref. No.	Existing Detail	Modifications
		Venous Cannulae Right Angled	Wire reinforced 90 0 angled plastic tip 12Fr, 14F and 16Fr. Overall length should be
		Specification:	approx. 33cm with ¼& 3/8 acceptance
		Wire reinforced 90 0 angled plastic tip 12Fr, 14Fr and 16Fr. Overall length should be	It should be US FDA approved.
		approx. 33cm with ¼& 3/8 acceptance	
80	134	Item Name:	Specification:
		Venous CannulaeRight Angled	Wire reinforced 90 0 angled plastic tip 22Fr, 24F and 28Fr. Overall length should be
		Specification:	approx.38cm with 3/8 acceptance.
		Wire reinforced 90 0 angled plastic tip 22Fr,	It should be US FDA approved.
		24Fr and 28Fr. Overall length should be	
81	135	approx.38cm with 3/8 acceptance. Item Name:	Cresification
81	135	Retrograde Cannula catheter	Specification: Self-inflating smooth balloon with preshapedstyle
			and handle 14Fr. Overall leng
		Specification:	should be approx. 27cm & amp; should have 18-2
		Self-inflating smooth balloon with	mm sized smooth balloon.
		preshapedstylet and handle 14Fr. Overall lengt	It should be US FDA approved.
		should be approx. 27cm & amp; should have 18- 20 mm sized smooth balloon.	
82	136	Item Name:	Specification:
02	150	Aortic Perfusion Cannulae;	Wire reinforced dispersion tip Sizes: 21Fr and 24F
			overall length approx.35cm an
		Specification:	vent.
		Wire reinforced dispersion tip Sizes: 21Fr and	It should be US FDA approved.
		24Fr overall length approx.35cm and	
83	137	vent. Item Name:	Specification:
00	157	Dual Stage Venous Cannulae;	Wire reinforced 32/40Fr and 36/51Fr. Overa
			length should be approx. 40cm an
		Specification:	½acceptance.
		Wire reinforced 32/40Fr and 36/51Fr. Overall	It should be US FDA approved.
		length should be approx. 40cm and	
84	138	½acceptance.       Item Name:	Specification:
	100	Femoral Arterial Cannulae;	Wire reinforced overall length should be 19.5.2 cr
			with ¼ vented connector sizes: 8F
		Specification:	10Fr, 12Fr and 14Fr.
		Wire reinforced overall length should be 19.5.2	It should be US FDA approved.
		cm with ¼ vented connector sizes: 8Fr,	
85	139	10Fr, 12Fr and 14Fr. Item Name:	Specification:
55	1.55	Femoral Arterial Cannulae;	Wire reinforced overall length should be approx
		· · · · · · · · · · · · · · · · · · ·	24cm with 3/8 vented connector sizes
		Specification:	16Fr, 18Fr and 20Fr.
		Wire reinforced overall length should be	It should be US FDA approved.
		approx. 24cm with 3/8 vented connector sizes:	
86	140	16Fr, 18Fr and 20Fr. Item Name:	Specification:
00	140	Femoral Venous Cannulae;	Specification.



S. No.	Tender Ref. No.	Existing Detail	Modifications
		<b>Specification:</b> Wire reinforced overall length should be approx. 24cm with ¼ non vented connector.Sizes 8Fr, 10Fr, 12Fr and 14Fr.	Wire reinforced overall length should be approx.24cmwith¼nonventedconnector.Sizes 8Fr, 10Fr, 12Fr and 14Fr.It should be US FDA approved.
87	141	Item Name: Venous Femoral Cannulae; Specification: Wire reinforced overall lengthshould be 752 cm with 3/8 non vented connector sizes 18Fr, 20Fr, 22Fr,24Fr and 28Fr.	Specification: Wire reinforced overall lengthshould be 752 cm with 3/8 non vented connector sizes 18Fr, 20Fr, 22Fr,24Fr and 28Fr. It should be US FDA approved.
88	257	Item Name: Thoracic catheter with trocar – All Sizes Specification: Thoracic drainage catheter with trocar for thoracic drainage purpose. Catheters to be marked at every 5, 10, 15 & 20 cm from the last eye. Fitted with tapered connector. Sterile, packed in peelable pouch pack. Sizes: 12, 16, 20, 24, 28, 32, 36 FG	Item to be read as DELETED
89	261	Item Name: FOGARTY ARTERIAL EMBLECTOMY CATHETER Specification: • Vinyl Latex Balloon tipped catheter for Arterial Emblectomy procedure. • Usable length 60-80 cm, Size 2F to 8F. • Recessed winding technique for balloon attachment for maintaining balloon symmetry for uniform contact with vessel wall, providing consistent clot removal	<ul> <li>Specification:</li> <li>Vinyl Latex Balloon tipped catheter for Arterial Emblectomy procedure.</li> <li>Usable length 60-80 cm, Size 2F to 8F.</li> <li>Recessed winding technique for balloon attachment for maintaining balloon symmetry for uniform contact with vessel wall, providing consistent clot removal It should be US FDA approved.</li> </ul>
90	262	Item Name:         THRU LUMEN FOGARTY CATHETER         Specification:         • Vinyl Latex Balloon tipped catheter for Arterial Embolectomy procedure.         • Usable length 80 cm.         • Size 2F-8F.         • Second lumen for guide wire compatibility facilitating crossing occluded, tortuous &stenotic arterial wall OR to be used for drug delivery & blood sampling.         • Stainless steel bushes under proximal & distal balloon windings for visualization under fluoroscopy.         • Recessed winding technique for balloon attachment for maintaining balloon symmetry for uniform contact with vessel wall, providing consistent clot removal	<ul> <li>Specification:</li> <li>Vinyl Latex Balloon tipped catheter for Arterial Embolectomy procedure.</li> <li>Usable length 80 cm.</li> <li>Size 2F-8F.</li> <li>Second lumen for guide wire compatibility facilitating crossing occluded, tortuous &amp;stenotic arterial wall OR to be used for drug delivery &amp; blood sampling.</li> <li>Stainless steel bushes under proximal &amp; distal balloon windings for visualization under fluoroscopy.</li> <li>Recessed winding technique for balloon attachment for maintaining balloon symmetry for uniform contact with vessel wall, providing consistent clot removal It should be US FDA approved.</li> </ul>
91	273	Item Name:	Specification:



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S. No.	Tender Ref. No.	Existing Detail N	Modifications
		Specification:       p         • Size:       2.5cm       to       6cm         • Should have sharp dual cutting edge for clean, precise       removal       of       aortic       tissue.         • A conical tip should be there for easy insertion       sl	<ul> <li>Size: 2.5cm to 6cm</li> <li>Should have sharp dual cutting edge for clean, precise removal of aortic tissue.</li> <li>A conical tip should be there for easy insertion by straight or button hole technique.</li> <li>Ten blade sizes for trimming to desired size and shape 2.5mm – 6.0mm</li> <li>t should be US FDA approved.</li> </ul>

#### Additions are as under:

S. No.	Tender Ref. No.	Item Name	Specification
1	288	Silicone Thoracic Drainage Catheter	Should have 100% silicone made. Should be soft. Should have open distal end and with multiple side holes. Should have 2cm marking from the last side hole. Should come 16-36 fr sizes. Should come in Sterile, double packed in peelable pouch pack.
2	289	Needle Free IV Access Device	Should be DEHP free Should have Silicon auto shut valve Should have Luer Lock Fitment conforming to ISO-549 standards Should be having high flow rate. Should come in sterile and ready to use, peelable packing
3	290	Needle Free IV Access Device with Extension arm	Should be DEHP free Should have one male Luer Lock at one end. Should Have One/Two/Three Extension line with Female Luer Lock and needle free Access ports with Silicon auto shut valve at each arm. Should have low priming volume (0.5 ml to1.6 ml) Should have Luer Lock Fitment conforming to ISO-549 standards Should be having high flow rate. Transparent housing to allow visual assessment of fluid path. Should come in sterile and ready to use, peelable packing Quote items separately
4	291	Multi port	3 gang Manifold provided with 1 male and 4 female Luer Lock ports. Manifold stopcock assist in controlling of fluid flow through IV delivery system at High Flow rate in various configurations to meet various IV therapy needs. Should be Lipid resistant. Transparent housing to allow visual assessment of fluid path. Should come in sterile and ready to use, peelable packing.



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S. No.	Tender Ref. No.	Item Name	Specification
5	292	ARTIFICIAL HEART VALVE BILEAFLET MITRAL	Should be Made up of pure Pyrolytic carbon Should have optimal profile height Should have 90 degree leaflet opening angle should have flared inlet at inflow Should have wide range of sizes from 23 mm to 33 mm Should have both CE and FDA approval
6	293	MECHANICAL BILEAFLET AORTIC HEART VALVE	Should be Made up of pure Pyrolytic carbon Should have optimal profile height Should have 90 degree leaflet opening angle should have leaflet guard design should have flared inlet at inflow Should have wide range of sizes from 19 mm to 29 mm Should have both CE and FDA approval
7	294	Pacing wire	O -26mm, 1/2 circle taper point, 88 mm straight cutting breakaway needle, 2-0, 17 mm 3/8 circle, Taper point, with distal breakaway needle 3-0 26 mm,1/2 circle taper point, 60 mm straight cutting needle USFDA Approved
8	295	VAMP Plus/ DPT Combination Kits (blood sampling kit)	Device combination kit with in line closed reservoir for infection free blood sampling along with disposable pressure transducer. It should have 60" patient tubing with two blood sampling sites located 13" and 55" from the patient; pole mountable with needleless shielded cannula • USF'.DA Approved.
9	296	Porcine Bio Prosthetic Heart Valve Aortic and Mitral	Should be Native Stented Porcine Valve Should have T-6 Anti Calcification to reduce calcification Should come in all sizes Should have clinical papers on survival rates for more than 25 years. Should be US FDA approved.
10	297	Right Ventricle to Pulmonary Artery Conduit in all sizes	
11	298	Unipolar Temporary Myocardial Pacing Lead	Should have fixation coil to minimize tissue trauma Should have discrete Electrodes for reliable sensing and pacing Should have Silastic Fixation Disc for arterial placement Should have sleeve insulating connector pins when in use

Page No.: 3 > Earnest Money > Point No.: 2: For:

Amount of Earnest Money Deposit

:

No. of quoted	Amount
items	(INR)
1-30	50,000/-
31-70	1,00,000/-
71-130	1,50,000/-
131-200	2,00,000/-
More than 200	2,50,000/-



\*\*\*\*\*\*

Read:

Amount of Earnest Money Deposit : 50,000/- (Rupees Fifty Thousand Only)

Page No.: 4 > Earnest Money > Point No.: 2 For:

#### **Earnest Money:**

Earnest money by means of a Bank Demand Draft may be enclosed with the quotation (Technical Bid). It is also clarified that the quotations received without earnest money will be summarily rejected. The DD may be prepared in the name of "**All India Institute of Medical Sciences, Jodhpur**". Details of EMD is as under:

No. of quoted items	Amount (INR)
1-30	50,000/-
31-70	1,00,000/-
71-130	1,50,000/-
131-200	2,00,000/-
More than 200	2,50,000/-

- a) No request for transfer of any pervious deposit of earnest money or security deposit or payment of any pending bill held by the institute in respect of any previous work will be entertained.
- b) Tender shall not be permitted to withdraw his offer or modify the terms and conditions thereof. In case the tenderer fail to observe and comply with stipulations made herein or backs out after quoting the rates, the aforesaid amount of earnest money will be forfeited to the AIIMS.
- c) The Tenders without Earnest Money will be summarily rejected.
- **d)** The firms who are registered with National Small Industries Corporation (NSIC) / OR Small Scale Industrial (SSI) are exempted to submit the EMD (copy of registration must be provide along with)
- e) No Claim shall lie against the AIIMS in respect of erosion in the value or interest on the amount of EMD.
- **f)** The EMD, in case of successful bidders shall be refunded on submission of performance security. In case of non-submission of the same, EMD will be forfeited.
- **g)** The EMD, in case of unsuccessful Bidders shall be retained by the Purchaser, upto a maximum period of 6 months from the date of opening of the Bids or till the finalization of the tender, whichever is later. The bid security shall be refunded to the unsuccessful tenderers on written request. No interest will be payable by the AIIMS authorities on the EMD.

#### Read:

### **Earnest Money:**

Earnest money by means of a Bank Demand Draft of **Rs. 50,000/- (Rupees Fifty Thousand only)** may be enclosed with the quotation (Technical Bid). It is also clarified that the quotations received without



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earnest money will be summarily rejected. The DD may be prepared in the name of "All India Institute of Medical Sciences, Jodhpur". Details of EMD is as under:

- a) No request for transfer of any pervious deposit of earnest money or security deposit or payment of any pending bill held by the institute in respect of any previous work will be entertained.
- **b)** Tender shall not be permitted to withdraw his offer or modify the terms and conditions thereof. In case the tenderer fail to observe and comply with stipulations made herein or backs out after quoting the rates, the aforesaid amount of earnest money will be forfeited to the AIIMS.
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- **g)** The EMD, in case of unsuccessful Bidders shall be retained by the Purchaser, upto a maximum period of 6 months from the date of opening of the Bids or till the finalization of the tender, whichever is later. The bid security shall be refunded to the unsuccessful tenderers on written request. No interest will be payable by the AIIMS authorities on the EMD.

### Page No.: 5 > Point No.: 8 > DOCUMENTS COMPRISING THE BID > Point No.: (e):

For:

The technical bid should be accompanied by Demand draft of **Rs. 1000/- (non-refundable) against tender fee** and Demand Draft of **EMD** as mentioned above.

### Read:

The technical bid should be accompanied by Demand draft of **Rs. 1000/- (non-refundable) against tender fee** and Demand Draft of **EMD** of Rs. **50,000/- (Rupees Fifty Thousand only)**.

### Page No.: 9 > Point No.: 23 >

### For:

### Performance Security:

The bidder shall require to submit the performance security after receipt of award of notification, in the form of irrevocable Bank Guarantee (BG) / or Fixed Deposit Receipt (FDR) issued by any Scheduled Bank. Details of performance security is as mentioned below:

S. No.	No. of Awarded Items	Amount of Performance Security (INR)
1	1-30	50,000/-
2	31-60	1,50,000/-
3	61-120	4,00,000/-



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4	121-180	8,00,000/-
5	More than 180	12,00,000/-

The security deposit of successful bidders will be kept for the period of one and half year from the date of award of the contract and shall be refunded without any interest on it within 15 to 90 days after completion of the contract as per order, or after the expiry of contract on satisfactory completion of the same whichever is later.

The security deposit can be forfeited by the Institute in the event of any breach or negligence or nonobservance of any condition of contract or for unsatisfactory performance or non-observance of any condition of the contract.

#### Read:

The bidder shall require to submit the performance security after receipt of award of notification, in the form of irrevocable Bank Guarantee (BG) / or Fixed Deposit Receipt (FDR) issued by any Scheduled Bank. Details of performance security is as mentioned below:

S. No.	No. of Awarded Items	Amount of Performance Security (INR)
1	1-30	1,00,000/-
2	31-60	2,00,000/-
3	61-120	4,00,000/-
4	121-180	8,00,000/-
5	More than 180	12,00,000/-

The security deposit of successful bidders will be kept for the period of one and half year from the date of award of the contract and shall be refunded without any interest on it within 15 to 90 days after completion of the contract as per order, or after the expiry of contract on satisfactory completion of the same whichever is later.

The security deposit can be forfeited by the Institute in the event of any breach or negligence or nonobservance of any condition of contract or for unsatisfactory performance or non-observance of any condition of the contract.

#### Administrative Officer